SLJOG

The Sri Lanka Journal of
Obstetrics and Gynaecology

51ST ANNUAL SCIENTIFIC CONGRESS SRI LANKA COLLEGE OF OBSTETRICIANS & GYNAECOLOGISTS

11th - 12th August 2018

“Meeting Challenges through Professional Development”

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Edited by Ramya Pathiraja

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SLCOG 51st Annual Scientific Congress 2018

11th -12th August 2018

Sri Lanka Foundation, Colombo

Sri Lanka Journal of Obstetrics & Gynaecology

“Meeting Challenges through Professional Development”

Editorial Committee

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Abstracts were reviewed by the SLCOG 51st Annual Scientific Congress Review Committee rather than as a part of the SLJOG peer review process.

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EDITORIAL

This supplement of the Sri Lanka Journal of Obstetrics and Gynaecology reports the proceedings of annual academic sessions – 2018 of the Sri Lanka College of Obstetricians and Gynaecologists.

Professor Sir Sabaratnam Arulkumaran Young Gynaecologists' Awards were initiated in the year 2017 coinciding with the golden jubilee of the College with a generous endowment from Sir Sabaratnam Arulkumaran. This supplement contains the abstracts of the research work presented by the awardees at the golden jubilee congress.

The named orations and lectures, plenary lectures, presentations at theme seminars and symposia are delivered by invited speakers. Abstracts of oral presentations and electronic posters were selected through a review process. Abstracts of oral presentations and e-posters in this supplement should not be cited as a publication in the event of non-presentation of the oral presentation or e-poster. A corrigendum to this effect will be published in a future journal issue.

I appreciate the members of the abstract review committee for their contributions in reviewing the abstracts submitted for oral presentations and electronic posters. The tireless efforts of the editorial staff in the editorial processes are highly commended. I value the magnanimous contribution made by Dr Sanjeeva Padumadasa who aided me in developing the final editorial version of this publication.

Ramya Pathiraja

Chief Editor/ SLJOG

PROFESSOR D. A. RANASINGHE MEMORIAL ORATION

BLOOD COMPONENT REPLACEMENT IN OBSTETRIC HAEMORRHAGE: A PARADIGM SHIFT FROM EMPIRICAL FORMULA DRIVEN TO EARLY TARGETED THERAPY

Pallemulle EADRE

Department of Anaesthesia and Critical Care, Consultant Anaesthetist, Castle Street Hospital for Women, Colombo 08, Sri Lanka

Haemorrhage is a major cause of death during pregnancy and early motherhood. It accounts for 25-35% of maternal deaths worldwide. In Sri Lanka, it has been the leading cause of direct maternal deaths during the last decade and ranked as the number one killer of pregnant women in 2016.

Blood component replacement is an integral part of the management, as there is an ongoing major loss, dilution, deactivation and consumption of coagulation factors (mainly fibrinogen) taking place during haemorrhage. Fibrinogen has been shown to be the first factor to drop precipitously in the early stages of haemorrhage. It is an early biomarker for the progression of PPH. For each 1g/l drop, there is a 2.63-fold increased risk for PPH.

Obstetric haemorrhage has different aetiologies. Uterine atony, surgical and genital tract trauma and placental adhesive disorders account for 80% of these. The type and extent of coagulation derangement vary according to the aetiology such that, in placental abruption the predominant derangement could be consumption rather than dilution. Early recognition and management of coagulopathy is of paramount importance to save the mother's life when optimal surgical and medical management fail.

With the advancement of pregnancy, haemostasis is shifted towards a hypercoagulable state. Serum fibrinogen levels typically increase up to 150-200%. The normal reference ranges of the conventional tests for adults do not reflect normal physiology of pregnancy. The tests assess limited parts of coagulation and do not help diagnose the underlying defect. Moreover, the turnaround times of these tests are more than 90 minutes, limiting their usefulness in acute setting. Point of care (POC) tests such as Thromboelastometry (TEM) have become increasingly attractive because results are obtained more rapidly (within 10 min). Further, it provides a more complete picture of coagulation and fibrinolysis. Rapid correction of haemostatic derangement using point of care TEM is the point of current focus to control obstetric haemorrhage.

A retrospective observational study was conducted in a major maternity hospital to assess whether early targeted therapy using POC TEM compared to empirical formula driven treatment has made any improvements in outcomes and has provided any benefits to the health care system.

Analysis of the results showed a significant reduction (48%, $P < 0.026$) in the total volume of blood products transfused with a 73% ($p < 0.000$) reduction in FFP and a 45% ($p < 0.025$) reduction in platelet transfusions. Use of cryoprecipitate had increased by 86% ($p < 0.000$). There was a 7% reduction in blood transfusions. However, there was no significant reduction in blood loss ($p = 0.938$). This could be due to the large number of placenta percreta (in which sudden rapid severe blood loss is a feature) found in the TEM group.

Hysterectomy rate decreased by 10% and the ICU stay decreased by 45% ($P < 0.000$). There was a 28% ($P = 0.031$) decrease in total expenditure.

It was concluded that early targeted therapy was associated with fewer blood product transfusions, fewer complications associated with those transfusions and lower cost.

Thus, the study suggests that early targeted therapy would be the better method in replacing blood components in the future management of obstetric haemorrhage.

AOFOG SESSION

ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH: INVESTMENT FOR THE FUTURE

Adolescent Sexual and Reproductive Health Services in Sri Lanka: Needs, Challenges and Responses

Vithana PVSC

Consultant Community Physician, National Programme Manager for Adolescent Health Programme, Family Health Bureau, Ministry of Health, Sri Lanka

Adolescents account for nearly 3.3 million (16%) of the Sri Lankan population. According to the national youth health survey (2012/2013), around 30% among 8820 youth are reported to have engaged in some sexual activity within the past one year. Almost 50% were not aware of even basic physiology and common sexual and reproductive health issues. Only 45% had heard of the emergency contraceptive pill. Adolescent fertility rate has remained static over the period of 1975 – 2016, with 31 and 30 live births per 1,000 women between 15 and 19 years in 1975 and 2016. Nearly 17000 teenage pregnancies were reported in 2017 and teenage pregnancy rate was 4.6%.

The National Policy and Strategic Plan on Health of the Young Persons accommodate providing of adolescent friendly sexual and reproductive health services as a government commitment. Delaying parenthood, education, contraception, creating economic opportunities, making cultural and social norms protective and enacting and implement legislations to protect sexual and reproductive rights are the main components of sexual and reproductive health while ensuring child survival and protection. Primary, secondary and tertiary prevention of teenage pregnancy are a major component of it. The service package consists of life skill development for rejecting unhealthy sexual relationships and protecting from abuse, preventing teenage pregnancy, care of pregnant mothers, care during delivery, care of lactating mothers including post-natal care, family planning services, STI/ HIV/AIDS prevention and management, services and prevention and management of gender-based violence without any discrimination in equitable manner. Main challenges are increasing accessibility, acceptability and coverage of services and providing social support for needy adolescents. Several interventions are being carried out in preventive and curative sectors for addressing existing challenges including ensuring positive development of the adolescent and streamlining the quality service provision.

Adolescent Sexual and Reproductive Health Services in India: Sharing experiences, identifying good practices and lessons learnt

Krishnendu Gupta

India

Abstract not available

Responding to adolescent, sexual and reproductive health needs of the adolescents and the role of the Obstetrician

Lakshmen Senanayake

Sri Lanka

Abstract not available

THEME SEMINARS

THEME SEMINAR 1

Maternal morbidity and mortality

BREAKING THE DEADLOCK ON PREVENTABLE MATERNAL DEATHS IN SRI LANKA

Hemantha Perera

Sri Lanka

Abstract not available

STAGNANT MATERNAL DEATH RATES IN THE RECENT PAST AND THE OBSTETRICIANS' ROLE TO OVERCOME THE PROBLEM

Darshana Abeygunawardana

Sri Lanka

Abstract not available

THEME SEMINAR 2

Health Economics

INTRODUCTION TO ECONOMIC EVALUATIONS IN HEALTHCARE

Sanjeewa Kularatna

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Health economic studies provide information to decision makers for efficient use of available resources for maximizing health benefits. Economic evaluation is one part of health economics, and it is a tool for comparing costs and consequences of different interventions. An analytical tool is required to prioritize and allocate scarce resources in an efficient way, which can put into perspective the costs and benefits of implementing one project instead of another, thereby creating a basis for decision making. Economic evaluation is such an analytical tool for decision making because it involves both a cost side and a benefit side, which are being evaluated against each other.

Cost-effectiveness analysis (CEA) is the most frequently used form of economic evaluation in the health sector. It is used to compare the relative costs and effects of two or more alternatives. The incremental cost-effectiveness ratio (ICER) is used to assess and present the cost-effectiveness of one alternative over the other and is calculated by the ratio of the cost difference to the difference in effectiveness between two alternatives. Further, the ICER can be compared with a threshold which reflects the opportunity cost in society when programs compete for funding, given a fixed budget. A willingness-to-pay (WTP) threshold is

now commonly used as a cost-effectiveness threshold as it represents the amount of money the public or society is willing to pay for a unit of health gain, given a budget constraint.

To assess the effect of an intervention in healthcare, the concept of quality-adjusted life year (QALY) is widely used in economic evaluation as an outcome measurement. QALYs combine quality of life or health utility of a specific health state and the length of time spent in that health state, capturing the quantity and quality of health. The use of QALYs allows comparisons between different interventions. To generate QALYs, health utilities are required, and these are the values that individuals place on health states. Health utility is elicited from different health states, whereby the more desirable health states receive greater weight. These preferences or, utilities are measured on a cardinal scale of 0 to 1, where 0 indicates death and 1 indicates full health in general. Years of life are then adjusted by health utilities to generate QALYs.

Various methods are used in economic evaluations. Trial-based economic evaluation is theoretically desirable as costs and effects of a program are collected from a clinical trial. The strength of trial-based evaluations avoids the problem of dealing with uncertainty in the second type of method, the modelling-based economic evaluation. However, it is not realistic to conduct a time-consuming and costly trial in the long-term. The modelling-based analysis involves designing an appropriate model and collect input values from various sources and provides a framework for decision-making under conditions of uncertainty.

HEALTH ECONOMICS: IMPORTANCE TO A SURGEON

Chanil Ekanayake

Senior Lecturer in Obstetrics and Gynaecology, Sir John Kotalawala Defence University, Ratmalana, Sri Lanka

The goal of a surgeon is to improve the outcome of the patient. In order to do so, novel treatment modalities would need to be adopted, questioning what is already known and carefully extending the boundaries of treatment. Limitations for low-resource settings include not only technological expertise but cost as well. It is therefore implicitly understood that the outcomes of newer treatment modalities would need to be systematically compared to the existing options in terms of outcomes and cost.

In 1918, Ernest Amory Codman, a surgeon from Boston, Massachusetts, published a landmark paper on the importance of studying outcomes. Healthcare outcomes may be valued using three main methods; assessing complications, patient reported outcomes (PRO) and the societal perspective. Assessing complications is often the most employed method but requires

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large sample sizes and is weighted on negative outcomes. Although considered as soft data, PRO consider both the negative outcomes and uncomplicated cases but may be affected by other factors acting as confounders. The societal perspective is the society's perception of the surgeon's practice and can be considered as the summary measure of both methods. However, obtaining an unbiased sample is often a limitation.

Obtaining objective measurements from PROs require validated questionnaires especially in the case of assessing pelvic organ function. These questionnaires can be used to compare pre-operative and post-operative states, in addition to offering some medico-legal coverage as these have been filled by patients themselves. Another advantage of these questionnaires is that they also consider functionality, a fact that is often neglected in clinical examination.

Despite the availability of ample clinical workload in developing countries the bulk of evidence for surgery is still generated by developed countries. The same can be said about cost-effectiveness for which the majority of evidence is generated by developed countries, whereas the need for cost-effectiveness is actually higher in developing countries owing to the comparative scarcity of resources in these settings. If cost-effectiveness is to be considered as the ultimate benchmark in low-resource settings, cost should be considered as the next dimension in healthcare because it ultimately decides the treatment offered despite being the 'elephant in the room' during the initial stages of treatment.

Therefore, surgical outcomes, either complications, PRO or societal perspective would need to be compared to cost. That would mean studying the cost-effectiveness, especially in low-resource settings such as Sri Lanka.

HEALTH ECONOMICS AND PUBLIC-SECTOR HEALTHCARE

Sunil de Alwis

Ministry of Health, Sri Lanka

Abstract not available

HEALTH ECONOMICS: IMPLICATIONS FOR PRIVATE HEALTHCARE

Vibash Wijeratne

Medical Director, Ninewells Hospital, Colombo, Sri Lanka

Abstract not available

THEME SEMINAR 3 Gynaecological Oncology

CERVICAL CANCER PREVENTION PROGRAM IN SRI LANKA

Loshan Munasinghe

Sri Lanka

Abstract not available

FERTILITY SPARING TREATMENTS IN GYNAECOLOGICAL ONCOLOGY

Chinthna Hapuarachchi

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As women delay childbirth in modern society, fertility sparing treatments bear a major role in gynaecological cancers where treatment commonly results in loss of fertility.

Cone biopsy and large loop excision of the transformation zone (LLETZ) alone can be curative for stage 1A1 cervical cancer. This can be combined with laparoscopic pelvic node dissection in treatment for stage 1A2 disease. Radical trachelectomy preserves fertility in stage 1B1 disease. Increased risk of second trimester miscarriage is a major concern following these treatment methods. If irradiating the pelvis becomes essential, ovarian transposition may be considered.

Medroxyprogesterone acetate or megestrol acetate is used for treatment of stage 1A endometrial cancer. However, there are concerns of underestimating the extent of the disease by hysteroscopy, dilatation and curettage, and contrast-enhanced magnetic resonance imaging (MRI) where a curable lesion may progress to advanced disease. The levonorgestrel releasing intrauterine system has been used for maintenance therapy. Hysterectomy after childbearing will decrease the risk of long term disease.

Conservative treatment can be considered for women with stage 1 invasive ovarian cancer. Full surgical staging is mandatory as metastasis occurs in 15-20% of cases. Germ cell tumours usually respond to chemotherapy and menstruation will resume in the majority after treatment. Most Borderline ovarian tumours are confined to the ovaries and can be managed conservatively.

Ovarian tissue retrieval, oocyte retrieval and cryopreservation are options to offer where fertility sparing surgery is not appropriate. Compromising survival and preserving fertility is a delicate balance. Women need to be adequately counselled and multidisciplinary management is essential.

ONCOPLASTIC SURGERIES OF THE VULVA

Sarada Kannangara

Sri Lanka

Abstract not available

THEME SEMINAR 4 Urogynaecology and Pelvic Floor

RECURRENCE OF PROLAPSE – GLOBAL PERSPECTIVE

Rameez MFM

Sri Lanka

Abstract not available

SURGICAL MANAGEMENT OF RECURRENT PROLAPSE

Ranee Thakar

UK

Abstract not available

MESH COMPLICATIONS AND MANAGEMENT

Ruwan Fernando

UK

Abstract not available

GUEST LECTURE

Prashanth Bamore

India

Abstract not available

THEME SEMINAR 5 Education and Training

PLACE OF SIMULATION BASED TRAINING IN DEVELOPING COUNTRIES

Mayooran Veerasingham

Improving maternal and perinatal health is a global priority. The WHO estimates that 1000 women die every day from preventable complications of pregnancy and delivery. Maternal cardiac arrest, cord prolapse, eclampsia, vaginal breech delivery, shoulder dystocia and obstetric haemorrhage are some of the major obstetric emergencies. These obstetric emergencies can threaten the lives of mother and infant in pregnancy, both during labour and after childbirth. Obstetric emergencies are stressful, unpredictable and pose an ethical dilemma, requiring immediate action that may challenge the skills and expertise of staff.

In countries with limited resources, poorly trained staff, lack of training in the management of obstetrics emergencies, lack of team collaboration and ineffective communication are some of the contributing factors for poor maternal and neonatal outcome. Simulation based training (SBT) provides a safe, controlled environment where problem-based learning is developed, and a high standard of competencies is achieved. Evidence shows that standardised obstetric emergency response drills and safety training are useful in improving team response, skills and patient outcomes. Further the importance of multi-professional training as a method of improving team collaboration, preventing errors and improving patient safety is highlighted. Modalities such as MOET, ALSO, PROMPT are some of the worldwide available SBT courses in high resource countries. They cannot be replicated in a low resource setting due to the cost of high fidelity mannequins involved in these courses. Therefore, the training needs to be designed to the local needs, at a low cost but with the same domains such as skills, team work and communication.

EXPANSION OF SUBSPECIALTY TRAINING IS THE WAY FORWARD TO DEVELOP OBSTET- RICS AND GYNAECOLOGY SERVICES

Harsha Atapattu

Sri Lanka

Abstract not available

WHY ARE WE NOT READY FOR EXPANSION OF SUBSPECIALTY TRAINING IN OBSTET- RICS AND GYNAECOLOGY?

Randeniya C

Sri Lanka

Abstract not available

THEME SEMINAR 6 Feto-maternal Medicine

NEW INSIGHTS IN TO PIH AND PRE-ECLAMPSIA

Hemantha Perera

Sri Lanka

Abstract not available

CURRENT MANAGEMENT OF FETAL GROWTH RESTRICTION

Dinuka Lankeshwara

Consultant Obstetrician and Gynaecologist, District General Hospital, Monaragala, Sri Lanka

Fetal growth restriction (FGR) does not bear an unambiguous practical definition whereas small for gestational age (SGA) does. Protocols and guidelines are clearer for SGA with the prime objective being differentiating between the constitutionally small babies and babies with growth restriction, the latter being susceptible to adverse outcomes.

Fetal anatomical survey is an integral part of antenatal care, not confined to pregnancies complicated by FGR. Fetal genetic studies and screening of maternal serum for infections such as cytomegalovirus and toxoplasmosis is indicated in selected pregnancies with a SGA fetus.

In the absence of any evidence based intervention to improve growth in growth restricted fetuses, monitoring is the key management modality. The primary objective of monitoring of a pregnancy with SGA fetus is to identify whether there is risk of in utero demise and to deliver preterm if indicated. Impedance to blood flow in fetal vessels, primarily in the umbilical artery is assessed to aid this decision. Antenatal corticosteroid administration has been shown to have clear benefits.

Timing of delivery is based on several factors out of which umbilical artery Doppler plays a pivotal role. Reversed diastolic flow at 32 weeks and absent diastolic flow at 34 weeks are widely accepted indications for preterm delivery. Increased pulsatility index above 95th percentile warrants delivery at 37 weeks.

Cerebro-placental ratio has gained attention as a tool to predict adverse perinatal outcomes in SGA. Interest in this regard has been revisited following recent reports explaining its value in assessing fetuses whose growth is appropriate for gestational age as well.

TAKING CARE OF FGR BABY

Ranmali Rodrigo

Senior Lecturer, Department of Paediatrics, Faculty of Medicine, University of Kelaniya, Sri Lanka

Abstract not available

PRETERM LABOUR – CURRENT EVIDENCE

T Rudra

Australia

Abstract not available

THEME SEMINAR 7 Postpartum Care, Labour, Antenatal Care

POSTPARTUM CARE

Thirukumar M

Sri Lanka

Abstract not available

FIBROIDS AND PREGNANCY; IS SURGICAL MANAGEMENT A FEASIBLE OPTION?

Karunakaran KE

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Fibromyoma has a prevalence of 2% in pregnant women. Mostly they are asymptomatic and often detected during caesarean section. Some of them cause complications including pain due to degeneration, torsion, an increase incidence of pregnancy losses due to spontaneous miscarriage, preterm delivery, and other complications such as antepartum haemorrhage, malpresentations, obstructed labour. Preterm delivery has been reported in approximately 15-20% of women with myomas, restriction of fetal growth in 10%, and malpresentation in 20%.

In clinical practice, pregnant women with large fibroids present with abdominal discomfort and heaviness which are disturbing symptoms. Such suffering would lead the clinician to decide upon surgery and myomectomy would become an option.

Literature has cited that antepartum myomectomy became an 'inevitable option'. In the recent past, the author encountered two cases of women in the second trimester who presented with fibroids with pain not responding to analgesics. Both women had subserosal fibromyomata. The first case was a 34 year old woman in her first pregnancy at the 14th week of gestation who presented with severe abdominal pain. She had a single fibromyoma of 11 cm x 12 cm x 11 cm size on the uterine fundus. During surgery two more small myomas were found in the anterior uterine wall. All three myomas were removed. Blood loss was about 500 ml. Post-operative recovery was uneventful. Myomectomy was not associated with complications. Care was taken to arrest bleeding promptly during surgery. Post-operative recovery was uneventful. The pregnancy went up to term. The second case was also similar, with a single large fundal fibromyoma. Further, myomas were removed during caesarean section without complications and bleeding could be arrested promptly.

A body of literature, reported from different countries is available with regard to myomectomy during pregnancy. From these reports and with the personal experience it can be concluded that myomectomy during pregnancy is a feasible option in women who present with fibromyoma large enough to cause symptoms. Surgery would be performed by an experienced Gynaecologist conscientious of haemostasis during surgery.

VBAC AND SCARE OF SCAR: IS THE FALLING VBAC RATE REFLECTIVE OF THIS FEAR?

Ratnasiri UDP

Consultant Obstetrician and Gynaecologist, Castle Street Hospital for Women, Colombo 08, Sri Lanka

There is an increasing rate of caesarean section in the world. This has resulted in emerging serious complications such as morbidly adherent placenta in subsequent pregnancies. The complications of caesarean section are 12 times higher than those of vaginal delivery. There is a fear among the Obstetricians of vaginal birth after caesarean due to the fear of scar rupture.

In 1916, Craigin introduced the dictum "Once a caesarean always a caesarean" and that is exactly what is being practised without any change in some of the facilities in our country today. The commonest indication for repeat caesarean is a history of previous section. With proper case selection and management of labour in accordance with protocols and careful supervision, a vaginal delivery rate of 82% can be achieved with minimal risk of scar rupture. The incidence of scar rupture is less than the risk of morbidly adherent placenta in a subsequent pregnancy according to the available evidence.

JUDICIOUS USE OF OXYTOCIN IN OBSTETRIC PRACTICE

Dasanayake DLW

Senior Lecturer in Obstetrics and Gynaecology, Faculty of Medicine, University of Ruhuna, Sri Lanka

For many years, oxytocin has remained a frontline uterotonic agent that plays a central role in the management of labour including induction, augmentation and active management of third stage of labour.

The elective induction of labour with amniotomy followed by oxytocin did shorten labour by 1.3 hours. A Cochrane review found that the use of oxytocin in slow progress of labour was associated with a reduction in the time to delivery in approximately two hours. Prophylactic oxytocin at any dose decreases both postpartum haemorrhage greater than 500 ml and the need for therapeutic uterotonics.

Although the use of oxytocin for induction and augmentation of labour is well established, there is a growing concern about its misuse. For this reason, oxytocin is considered one of the most 12 dangerous medications used in a hospital (ISMP list 2014). Adverse outcomes of oxytocin include uterine tachysystole with fetal heart rate changes, hyperstimulation and uterine rupture. Other maternal adverse effects include hypotension, tachycardia and arrhythmias.

Most of the adverse outcomes could be reduced by the use of oxytocin dose titration regimen with infusion pump, continuous electronic fetal monitoring with correct interpretation of CTG, senior level assessment of labour to initiate oxytocin in slow progress of labour, commencement of oxytocin at least six hours after prostaglandin and discontinuation of oxytocin following early fetal compromise, excess uterine activity and suspected fetopelvic disproportion.

Judicious use of oxytocin could further reduce most of the reversible adverse perinatal outcomes and severe maternal morbidity and mortality.

THEME SEMINAR 8

Post-Reproductive Health, Menopause Society Session

WHAT IS NEW IN MANAGING PREMATURE OVARIAN INSUFFICIENCY (POI)/ PREMATURE OVARIAN FAILURE (POF)?

Sathanandan M

Consultant Obstetrician and Gynaecologist, Colombo, Sri Lanka

Premature ovarian failure is defined as cessation of period before 40 years of age. Premature ovarian failure affects 1 in 10,000 by the age of 20 years, 1 in 1000 by the age of 30 and 1 in 100 by the age of 40. Premature ovarian insufficiency (POI)/POF is associated with 50% higher mortality compared to menopause at 50 to 52 years unless hormone replacement therapy is given up to the age of 50.

Premature ovarian failure is diagnosed based on the triad of amenorrhoea, elevated gonadotropins and oestrogen deficiency.

The diagnosis is delayed by 5 years in 25% of patients. No clear cut cause will be identified in 90% of patients.

Investigations include serum FSH, TSH, Prolactin, chromosome analysis, autoantibodies and DEXA scanning for BMD.

The aim of treatment is to replace hormones, oestrogen, progesterone and androgens to the physiological range until at least 50 years of age to minimise the symptoms of hormone deficiency and prevent the long term sequelae of estrogen deficiency.

WHAT WOMEN SHOULD KNOW ABOUT MENOPAUSE

Sanath Akmeemana

Sri Lanka

Abstract not available

CONTRACEPTION IN PERIMENOPAUSE

Janakie Karunasinghe

Sri Lanka

Perimenopausal period is a transitional phase preceding menopause which ends one year after the last menstrual period. Although fertility steeply declines during perimenopause and pregnancy is very rare after the age of 50, an effective mode of contraception is still needed to prevent unwanted and potentially risky pregnancies.

Perimenopausal women, after the age of 40, experience menstrual irregularities, sexual dysfunction, age-related medical, urogenital and psychological problems, and an elevated risk of breast and gynaecological cancers which necessitates potentially different guidelines for them to evaluate and choose the most appropriate mode of contraception.

Progesterone-only pills and implants, levonorgestrel intrauterine systems and copper intrauterine devices can safely be used until the age of 55. The combined hormonal contraceptive pill is an effective contraceptive as well as an alternative to hormone replacement therapy in women under age 50. The choice of contraception also depends on other associated problems, non-contraceptive benefits and the side effects. Barrier methods may be an acceptable alternative to some women. Typically no contraceptives are needed after the age of 55. Competent medical consultation is highly recommended to re-evaluate risks and benefits of different contraceptive modalities in the context of perimenopause, and determine the most appropriate timing to start and stop the chosen contraceptive.

THEME SEMINAR 9

Benign Gynaecology

UTERINE FIBROIDS

Ananda Ranathunga

Consultant Obstetrician and Gynaecologist, Colombo, Sri Lanka

Uterine fibroids are the most common benign tumours in women.

These tumours originate from the smooth muscle of the myometrium. Most fibroids are asymptomatic. However, about 30 percent may have symptoms such as heavy menstrual bleeding, pain, lower abdominal discomfort and urinary or defecation problems depending on the location and the size. The incidence of fibroids increases from puberty to menopause and they are common in late thirties and forties. Following menopause, the size often decreases indicating its dependence on hormones. Both oestrogen and progesterone mediate the tumorigenesis. There is also a genetic component in the development of uterine fibroids: Women with a family history of fibroids are four times more likely to develop fibroids and they are more common in black women compared to other populations.

Fibroids cause concern in women of reproductive age because it affects the quality of life. Treatment options either reduce symptoms or act on fibroids. Further, treatment can be medical or surgical. Surgical options could be minimally invasive or invasive. Medical management includes GnRH agonists, oral contraceptives and levonorgestrel releasing intrauterine system. Minimally invasive surgical treatment options include endometrial ablation, hysteroscopic myomectomy, Laparoscopic myomectomy, Laparoscopic ultrasound- guided radiofrequency ablation, Magnetic resonance imaging - guided focused ultrasound (MRgFUS) and uterine artery ablation. Invasive methods are abdominal myomectomy and hysterectomy. The treatment has to be individualised according to the wishes for pregnancy, severity of symptoms, how close the woman is to menopause and also the available services. More conservative medical treatment methods which are safe and effective are currently in development. As the growth of uterine fibroids is dependent on progesterone and cells of fibroids highly express progesterone receptors, Selective Progesterone Receptor Modulators (SPRM) have been developed. These agents interfere with tumorigenesis and reduce the size of fibroids and bleeding. Two SPRM agents currently used in clinical practice are Ulipristal acetate and Vilaprisan. GNRH antagonists too are under investigation as an orally administered drug as a potential treatment method for fibroids.

Further research on new treatment modalities and on women who wish to become pregnant are needed. The best option should be decided considering clinical features and personal goals of the patient.

POLYCYSTIC OVARY SYNDROME – AN OVERVIEW

Muhunthan K

Senior Lecturer, Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Jaffna, Sri Lanka

Polycystic ovary syndrome (PCOS) is a common condition that has a number of reproductive and general health implications in adults. It is also currently considered the commonest endocrine condition to affect women with an estimated prevalence of 10-15%. Anyhow this prevalence rate depends on the population studied and the diagnostic criteria used.

Symptoms of PCOS in adult women include menstrual cycle disturbance and features of hyperandrogenism, with associated fertility problems, obesity and psychological issues. There is significant heterogeneity of presentation, such that signs and

symptoms manifest across a spectrum and their severity may vary.

The cause of PCOS is unknown. However, considerable evidence suggests that it is a complex trait arising from heritable influences, non-heritable intra and extrauterine environmental factors, variations in insulin resistance, alterations in steroidogenesis/steroid metabolism, and alternative adaptations to energy excess.

Although the clinical and biochemical presentation of PCOS are heterogeneous, hyperandrogenemia is the most consistent biochemical abnormality, and thus is considered the hallmark of the syndrome.

Various signs and symptoms of hyperandrogenism can manifest prepubertally and the onset of menstrual dysfunction in PCOS typically occurs peripubertally. The syndrome has also been associated with the childhood antecedents of reduced fetal growth, followed by excessive postnatal catch up and premature adrenarche/pubarche, suggesting a developmental aspect to its aetiology. Moreover, being overweight or obese, a common problem in the paediatric and adult populations, amplifies the clinical severity of the syndrome and increases the risk of metabolic dysfunction.

PCOS appears to be underdiagnosed and, as a result, patients may not be managed appropriately. Furthermore, management of PCOS may require the collaboration of a variety of health-care professionals, ranging from primary care physicians, gynaecologists, reproductive specialists, endocrinologists, diabetologists, dermatologists, paediatricians, dieticians and psychologists.

INSIGHTS IN TO THE MANAGEMENT OF PELVIC INFLAMMATORY DISEASE

Iresha Mampitiya

Sri Lanka

Abstract not available

THEME SEMINAR 10 SDG's and Women's Health

OVERVIEW OF SDGS: WHY, WHAT AND HOW?

Perera TWS

Sri Lanka

Abstract not available

FAMILY PLANNING: ARE WE DOING ENOUGH?

Gunasekera PC

Consultant Obstetrician and Gynaecologist, Colombo, Sri Lanka

Family planning (FP) is critical for achieving the SDGs. It can prevent obstetrical complications and poor birth outcomes for mothers and newborns. By slowing population growth, FP contributes to lower levels of energy use and thereby reduce greenhouse gas emissions, impacting climate change. Coupled with supportive policies, FP can enable the demographic dividend. Having fewer children increases women's likelihood

of entering the workforce and allows families to invest more resources in each child. Fertility decline and the resulting older population structure increase the probability of attaining and maintaining a liberal democracy.

“Percent of demand met with modern contraceptive methods” is accepted internationally as the indicator to measure progress in FP. It reflects voluntarism, informed choice, equity and rights. This measure can be disaggregated by a host of equity factors. The benchmark of 75% has been set i.e. three-quarters of all women who wish to avoid pregnancy are using a modern FP method.

FP is stagnating in Sri Lanka. Use of traditional methods is still high. Female sterilizations are declining. Male sterilizations are not carried out. Missed opportunities for FP exist in 86% of women aged 15-49 years who are not using contraception, not having discussed FP with a field worker or during a visit to a health facility.

OBGYN has a major role in promoting FP during the post-abortion and antenatal period; The tasks would be to facilitate female sterilizations, train junior doctors in the procedure, promote and provide post-partum contraception, including PPIUD and address myths and misconceptions about FP.

SAVING MORE CHILDREN: OBSTETRICIANS' ROLE

Mayuramanna Dewolage

Sri Lanka

Abstract not available

MATERNAL MORTALITY: BEYOND THE GOAL, SAVING MORE MOTHERS

Sardha Hemapriya

Consultant Obstetrician and Gynaecologist, Teaching Hospital, Kandy, Sri Lanka

Sustainable Development Goal 3: Ensure healthy lives and promote well-being for all at all ages

Target – By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

Maternal mortality remains a global tragedy, but the observed progress inspires the international community to strive for the elimination of preventable maternal deaths in the decades to come.

The vast majority of maternal deaths are avoidable and take place in developing countries. In developed countries, the maternal mortality ratio (MMR) may be as low as 10 maternal deaths per 100 000 live births, compared to least developed countries where it may be as high as 1000 or more maternal deaths per 100 000 live births.

Data reflect a secular trend where countries are gradually shifting from a pattern of high to low maternal mortality, from predominance of direct obstetric causes of maternal mortality to an increasing proportion of indirect causes and non-communicable causes. In addition, there are ageing of the maternal population, and moving from the natural history of pregnancy and childbirth

towards institutionalization of maternity care, increasing rates of obstetric intervention and eventual over-medicalization. This is the ‘obstetric transition’ phenomenon, which has implications for the strategies aimed at reducing maternal mortality.

We believe that the concept of obstetric transition is useful to understand the dynamic process of reduction of maternal mortality and can function as a conceptual framework to explain the co-existence of different strategies for reducing maternal mortality and to inform policies and programmes at the country and global levels.

Promoting social development and equity, together with health system strengthening and improvements in quality of care, are mandatory steps in the quest for a world free of preventable maternal deaths.

SEXUAL AND GENDER BASED VIOLENCE: ACHIEVABLE OR NOT?

Lakshmen Senanayake

Consultant Obstetrician and Gynaecologist, Colombo, Sri Lanka

Abstract not available

THEME SEMINAR 11

Risk Management and Clinical Governance

CAESAREAN SECTION ON MATERNAL REQUEST: DO WE GIVE IN OR DECLINE? AN ETHICAL AND A LEGAL PERSPECTIVE

Padumadasa GS¹, Silva KCDP², Rodrigo MDA³, Wickramanayake J⁴

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Caesarean section on maternal request (CSMR), defined as the first caesarean section performed before the start of labour and in the absence of any maternal or fetal indications, has emerged as an entity due to the increasing willingness of women to accept this intervention and the willingness of the Obstetrician to oblige to this request. These account for 6-7% of all caesarean sections. However, the incidence could be much higher due to the irregularities in documenting the indication for the intervention.

The past decade has seen a rise in the demand for CSMR. Much of this rise is as a result of the perceived myth of safety of caesarean section and the changing attitudes of the society and the medical profession to childbirth.

The reasons for women to request for CS are fear of pain of childbirth (tocophobia), fear of the risks related to vaginal delivery and the convenience of being able to decide on the timing and mode of delivery. The latter two are evident in the higher socio-economic groups.

To give in to the woman's request for caesarean section (CS) is a manifest of honouring her autonomy but comes at the expense of the integrity of the Obstetrician who is reduced to a mere technician in this instance. Doctors are also bound to do good and avoid harm to patients (beneficence and non-maleficence).

In a resource poor setting, where there is a social obligation to divert whatever resources available to the essential and life-saving interventions, the woman's right for a request for CS in the absence of any valid medical indication, becomes a privilege. However, when the woman is prepared to pay for the intervention, the balance of benefit versus harm between CS and vaginal delivery becomes crucial in deciding whether to oblige to the woman's request for CS or not. When the risks of an intervention or refusing the intervention and allowing the natural course of events to take place are thought to be the same, the woman's choice can be reasonably considered when deciding on the mode of delivery.

Remarkable advances in asepsis, surgery and anaesthesia have contributed to CS turning out to be a safe operation today. Maternal mortality following CS has become an extreme rarity. Nevertheless, caesarean section in the current pregnancy carries a risk in subsequent pregnancies of, bladder and bowel injuries, placenta praevia, placenta accreta, uterine rupture and hysterectomy, which could prove to be fatal for the individual.

Although the patients have the right to decide whether or not to undergo medical intervention even where refusal may result in harm or death, it is still unclear whether a 'positive right' to insist upon an intervention that the physician is obliged to provide, ever exists in an ethical or a legal context.

Whether the baby benefits by a caesarean section requested by its mother is debatable. Caesarean section rates above 13-15% do not result in improvement in perinatal mortality and normal babies still die following CS.

Litigation in the medical profession is on the rise and where do we stand in the issue of caesarean section on maternal request (CSMR) within the legal framework? The largest payouts are predominantly associated with vaginal births. However, complications which occur as a result of a non-indicated major surgery would still remain hard to defend.

THEME SEMINAR 12

Reproductive Medicine

ROLE OF ENDOSCOPIC SURGERY IN SUBFERTILITY

Nishendra Karunaratne

Sri Lanka

Abstract not available

PROGESTERONE IN PREGNANCY, FROM CURRENT BEST EVIDENCE IN TO EARLY PREGNANCY CLINICAL PRACTICE

Asanka Jayawardana

Sri Lanka

Abstract not available

TUBAL FACTOR INFERTILITY

Chaminda Hunukumbure

Teaching Hospital, Kandy, Sri Lanka

Tubal obstruction, or dysfunction associated with peri-tubal adhesions accounts for a significant proportion of cases of female infertility, especially those with secondary infertility. Tubal factor infertility could be of infective, inflammatory aetiology or iatrogenic, and tell-tale features of each of these could often be found in the clinical history and examination. Assessment of tubal patency could be done through time-tested methods such as hysterosalpingography (HSG), surgical methods such as laparoscopy and chromotubation, as well as modern out patient techniques such as Hystero-salpingo contrast sonography (HyCoSy), which, as evidence suggests, is more acceptable to patients.

Tubal pathology, can be broadly classified as either proximal or distal. Proximal tubal disease, commonly signified by salpingitis isthmica nodosa (SIN) is best managed by surgical resection and re-anastomosis. On the other hand, distal tubal disease usually ends up producing hydrosalpinges, which are easily identifiable with routine 2D transvaginal ultrasound scans. The fluid within the hydrosalpinx is embryotoxic, and hence, upon detection, needs to be removed or occluded in order to restore fertility. Surgical reconstruction usually does not restore function, and simple drainage is utterly ineffective, and therefore, is not recommended.

Reversal of tubal sterilization equals the age-related success rate of in-vitro fertilization (IVF), which also depends on the residual length of each fallopian tube.

MYTHS VS FACTS ON GONADOTROPHIN THERAPY IN ART

Pavitra Dewda

India

Abstract not available

SYMPOSIA

SYMPOSIUM 1

Perinatal Society

DELIVERY OF THE SMALL BABY

Ruwan Silva

Sri Lanka

Abstract not available

MATERNAL MENTAL HEALTH

Samudra Kathriarachchi

Sri Lanka

Abstract not available

OBSTETRICIAN'S ROLE IN ESTABLISHING BREAST FEEDING

Nishani Lucas

Sri Lanka

Abstract not available

SYMPOSIUM 2

Endoscopy Working Party

THE LATEST EVIDENCE-BASED APPROACH FOR SURGICAL MANAGEMENT OF ADVANCED ENDOMETRIOSIS

Kirana Arambage

Consultant Obstetrician and Gynaecologist, UK

This presentation will emphasize the importance of the current evidence-based approach to advanced laparoscopic treatment to severe endometriosis. The surgical videos will demonstrate the tips and tricks and stepwise approach in managing severe pelvic endometriosis. The presentation will also focus on the latest evidence of surgical outcome for patients who had severe pelvic endometriosis. The multi-disciplinary approach involving clinical and research teams is the effective and the safest way to tackle this debilitating condition which has a major impact on the quality of life of patients and the economy of the country.

ADVANCED TREATMENT OF COMPLICATIONS OF SURGERY

Dhammike Silva

Senior Lecturer, Department of Obstetrics and Gynaecology, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka

Complications following major gynaecological surgery are not common occurrence. However, when they do occur, these can cause serious morbidity and rarely mortality. Complications, when detected intra-operatively, can be managed more efficiently and with multidisciplinary involvement which generally results in a good outcome. However, undetected injuries to viscera present in the post-operative period where resolving these issues may be more complicated with a higher morbidity and rarely mortality.

This presentation will focus mainly on the formation of vesico-vaginal fistulae, its impact on the quality of life of these patients and surgical interventions to correct this complication.

REDUCING COMPLICATIONS IN OPERATIVE LAPOROSCOPIC SURGERY

Dilip Visvanathan

Consultant Obstetrician and Gynaecologist, Whipps Cross University Hospital, London, UK

Complications associated with laparoscopic surgery are low. However, when they do occur, they can lead to considerable morbidity and even mortality. Up to half of all complications occur when gaining entry in to the abdominal cavity. A safety checklist should be considered in order to reduce these complications. Injuries to the viscera can occur due to inadvertent incision or thermal injury. Knowledge of surgical anatomy and electrosurgical principles should be optimized to mitigate this. Port site complications are not uncommon. These could be early or late. Awareness and preventive steps could reduce both types. Complications are also higher depending on the type of surgery that is being undertaken. This could be due to altered anatomy from previous surgery or pathological adhesions from endometriosis and pelvic inflammatory disease. Having the surgical expertise available, appropriate preoperative counselling and preparation with proactive postoperative care is imperative to keep complications at a minimum. The presentation will highlight upon the measures that could be considered to reduce complications when performing laparoscopic surgery.

SYMPOSIUM 3

Diagnostics and Screening in Gynaecology and Obstetrics

USE OF MOLECULAR GENETIC TESTING IN OBSTETRICS AND GYNAECOLOGY

Navaneethan S

Australia

Abstract not available

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**OVERVIEW OF ULTRASOUND IMAGING IN
PRENATAL DIAGNOSIS OF CONGENITAL
INFECTIONS****Marleen S***Sri Lanka*

Abstract not available

**DIAGNOSIS AND CLASSIFICATION OF
MONOCHORIONIC TWIN COMPLICATIONS****Tiran Dias***Sri Lanka*

Abstract not available

FETAL CARDIAC SCREEN PROTOCOL**Monica Lee***Canada*

Identification and management of fetal cardiac abnormalities are important because congenital anomalies are the leading cause of infant death and congenital heart disease accounts for at least one third of these deaths. Generally, the full spectrum of cardiac lesions seen in a postnatal population can be detected in the fetus. Fetal cardiac screening required by ISUOG guidelines consists of four-chamber, right ventricular outflow tract, and left ventricular outflow tract views. The three-vessel view is also often used in screening. These views are essential for a complete evaluation of the fetal heart. The evaluation begins with investigating the situs of the fetus, followed by a four-chamber view to evaluate the atria and ventricles, including the atrioventricular valves. The right and left ventricle outflow tract views are also essential for assessment of bilateral ventricles, aorta, and pulmonary artery. Techniques of scanning are discussed briefly. The aim of this presentation is to simplify fetal cardiac screening sonography to aid clinicians who are involved in ultrasound screening of pregnancies in making an early diagnosis of significant congenital heart disease.

**DR. P. DISSANAYAKE ENDOWMENT LECTURE
DOWNTON ABBEY TO CSI: TALE OF PRE-ECLAMPSIA****Phillip Baker***UK*Abstract not available

PROF. SIR SABARATHNAM ARULKUMARAN YOUNG GYNAECOLOGISTS' AWARDS 2017

FUNGICIDE “MANCOZEB (MANGANESE-ETHYLENE BISDITHIOCARBAMATE)” IMPAIRS EMBRYO IMPLANTATION VIA DISRUPTING THE EARLY EMBRYO ATTACHMENT AND DECIDUALIZATION

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Mancozeb (manganese ethylene bisdithiocarbamate), is the most commonly used fungicide in Sri Lanka which is usually over used or misused by the farmers. Recently, Mancozeb has been categorized as an endocrine disruptor and through the food chain, humans are constantly at risk of exposure. The present investigation was undertaken to evaluate the effect of Mancozeb on embryo implantation using an in vivo mice model and in vitro cell culture based embryo implantation assay. Female mice model (ICR mice) at 12-15 weeks old were administered orally with Mancozeb in olive oil at 0, 0.3, 3, 30 mg/kg body weight from gestation day (GD) 4 to GD 8 after the confirmation of mating. At GD 9, the mice were sacrificed and the numbers of implantation sites were counted. In culture human endometrial epithelial cells Ishikawa (receptive endometrium model) were treated with Mancozeb at 0.01, 0.1 and 1 µg/ml for 48 hours and used for an in vitro embryo implantation study with JA₁ spheroids (embryo surrogates). The expression of genes related to decidualization process was also studied in the uteri of treated and untreated mice. The number of implantation sites was significantly lower ($p < 0.05$) in mice administered with 30 mg/kg/day Mancozeb when compared to the control. Moreover, the expression prostaglandin E2 synthesis (PGES) mRNA was significantly down-regulated in uteri of treated mice compared with the control ($p < 0.05$). Treatment of Ishikawa monolayers for 48 hours with Mancozeb at 1 µg/ml significantly reduced the JA₁ trophoblastic spheroids attachment on to the mono layers compared to the non-treated control ($p < 0.001$) indicating the possibility of Mancozeb inhibiting early embryo attachment. Furthermore, Mancozeb at 1 µg/ml down-regulated GSK3 β expression in Ishikawa cells suggesting the possible involvement of Mancozeb on disrupting Wnt/ β -catenin signalling pathway. In summary, Mancozeb suppresses embryo implantation in in vivo and in vitro models, partly through dysregulation of the decidualization process via prostaglandin E2 synthesis pathway

and implantation through disrupting Wnt/ β -catenin pathway. Yet, the chronic low-dose effect of Mancozeb on implantation warrants further investigations.

COST-EFFECTIVENESS OF TLH VERSUS NDVH VERSUS TAH: A MULTI-CENTRE RANDOMIZED CONTROLLED TRIAL

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⁴Senior Professor, Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Kelaniya, Sri Lanka

Objective: Hysterectomy is the commonest major gynaecological surgical procedure. There are many approaches in performing a hysterectomy which depend on clinical criteria. However certain patients are suitable to be operated through any approach. The objective of this study was to provide evidence on the optimal approach in terms of cost-effectiveness between non-descent vaginal hysterectomy (NDVH), total laparoscopic hysterectomy (TLH) and total abdominal hysterectomy (TAH).

Methods: A multi-centre three arm randomized controlled trial is being conducted at the professorial gynaecology unit, North Colombo Teaching Hospital, Ragama and gynaecology unit, District General Hospital, Mannar. Results of the Mannar arm are presented. Study population were women needing hysterectomy for non-malignant uterine causes. Exclusion criteria were uterus ≥ 14 weeks, previous pelvic surgery, those requiring incontinence/pelvic floor surgery, co-morbidities which precludes laparoscopic surgery and women who are illiterate. Primary outcome was time taken to resume all activities done prior to surgery. A micro-costing approach was adopted to calculate utilization of hospital resources from the time of presentation to the gynaecology clinic up to six months after surgery. The treatment groups were compared using a one-way analysis of variance (ANOVA) followed by Tukey's HSD for post hoc comparisons of the mean values. Incremental cost-effectiveness ratios (ICER) were obtained by calculating the incremental costs divided by the incremental effects (time to recover) for the intervention groups (NDVH and TLH) over the standard care (TAH) group.

Results: There was a significant difference in time to recover in TLH [28.9 days (26.2-31.2), $p < 0.02$] and NDVH [29.8 days (26.8-32.9), $p < 0.05$] versus TAH [35.5 days (32.0-39.0)]. There was no significant difference between TAH and NDVH [$p = 0.90$].

The direct cost of a TLH [Rs. 45371 (43770-46972)] was significantly more than TAH [Rs. 34060 (32521-35599), $p<0.001$] or NDVH [Rs. 33038 (29720-36356), $p<0.001$]. There was no significant difference between TAH and NDVH ($p=0.81$). The incremental costs of a TLH was significantly more than TAH [Rs.11311 (9710 to 12912), $p<0.001$]. The incremental cost of a NDVH was [Rs. 1022(-4340 to 2296), $p=0.81$] less than TAH. ICER-TLH was Rs.1714/day. As both the cost as well as the time to recover was more favourable than TAH, ICER-NDVH was not calculated.

Conclusion: This interim analysis shows that TLH and NDVH have a faster recovery compared to TAH. However, the incremental costs for a TLH were considerably higher. The optimum approach to hysterectomy appears to be NDVH in terms of cost-effectiveness

AUDIT: COST ANALYSIS OF DILATATION AND CURETTAGE & HYSTEROSCOPY FOR ABNORMAL UTERINE BLEEDING – DONE AT PROFESSORIAL OBSTETRICS & GYNAECOLOGY UNIT, COLOMBO SOUTH TEACHING HOSPITAL

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Professorial Gynaecology Unit, Colombo South Teaching Hospital, Sri Lanka

Introduction: Endometrial sampling is an inevitable procedure in identifying and treating the conditions in clinical practice of gynaecology. This audit was carried out to estimate the direct cost for dilatation and curettage (D&C) and hysteroscopy under general anaesthesia and to describe the patient characteristics, duration of hospital stay and clinical outcome of the procedure in a tertiary care hospital in Sri Lanka.

Methods: This retrospective observational study was conducted among 286 patients who had got admitted and undergone D and C (254) and Hysteroscopy (32) in the Professorial Gynaecology unit, Colombo South Teaching Hospital from January 2014 to January 2015 and data collection was done using a structured data collection sheet with the aid of patients' records. Analysis direct cost of the procedure was calculated.

Results: Samples were obtained from 95% of the D&Cs and out of that 77% of the samples were adequate for the histopathologist to comment on. Malignancy was detected in 2.1%, 7.8% required further surgical interventions while others were reported as benign and 33% of the samples obtained were endometrial polyps. Average duration of a surgery was 15.5 min, and a total of 71 hours of theatre time had been used. The average hospital stay was 2.25 days per patient. Total theatre cost was calculated as Rs. 2,405,214.24.

Conclusion: The duration of hospital stay (2.25 days) is unacceptable for a procedure such as D&C. The direct cost of the procedure for 1 year alone is adequate to buy a basic outpatient hysteroscopy unit, therefore establishment of an outpatient hysteroscopy unit seems to be a reasonable and cost effective option even for a low resource setting.

A STUDY OF PERIPARTUM AND POSTPARTUM HYSTERECTOMY (EPPH) DONE AT TERTIARY REFERRAL MATERNITY HOSPITAL, COLOMBO, SRILANKA

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Objectives: EPPH is a lifesaving procedure in emergency situations such as obstetric haemorrhage when conservative medical and other surgical measures have failed. It is a very dramatic but lifesaving procedure and is associated with significant maternal morbidity and mortality.

Methods: Prospective data collection was carried out from 01 June 2014 until 31 May 2015 at De Soysa Maternity Hospital for Women for all SAMM (Severe acute maternal morbidity and mortality) events. All identified post-partum hysterectomies were analysed in detail for incidence, indications, risk factors, pre-operative management, surgical technique, morbidity, hospital resource utilization and outcomes.

Results: There were 10 peripartum hysterectomies and one postpartum hysterectomy done during the study period for 7160 deliveries at a rate of 14 per 10000 deliveries. None were primigravida. Median (IQR) age was 36 (31-36) years and POA was 37 (36-38) weeks. There were 9 live births, 2 still births (AFLP/ IUGR) and 1 neonatal death (congenital anomalies).

The commonest indication for EPPH was morbidly adherent placenta (7 cases). Mode of delivery for 9 out of 11 were elective LSCS and there were two planned vaginal deliveries. Four EPPH were done for postpartum haemorrhage (three for atonic uterus and one for trauma). All patients required intensive care. The median stay at ICU (intensive care unit) was four days (range 1-22 days). One patient had AFLP prior to delivery. Transfusion of packed cells was required for all patients (median of two packed cells with range of 1-9 packed cells) and other blood products were transfused in five patients.

Five peripartum hysterectomies were planned prior to delivery (elective) due to morbidly adherent placenta and were done with a mean blood loss of 660ml, average transfusion requirement of 1.6 packed cells, mean ICU stay four days, average total hospital stay of eleven days. Six unplanned hysterectomies were done with a mean blood loss of 2033ml, average transfusion requirement of 3.5 packed cells, average ICU stay of six days, mean total hospital stay of 12 days. There were nine total and two subtotal hysterectomies. There were no maternal deaths in the study population.

Conclusion: Studying EPPH is important to understand near-miss maternal morbidity, and it also aids in the understanding of severe maternal morbidity and mortality allowing better resource utilization.

ARE THE RECOMMENDED BODY MASS INDEX (BMI) AND THE GESTATIONAL WEIGHT GAIN (GWG) ASSOCIATED WITH THE EXPECTED PREGNANCY OUTCOMES IN RURAL SRI LANKAN SETTINGS?

Ranaweera UDHJ

Consultant Obstetrician and Gynaecologist, Base Hospital, Dabadeniya, Sri Lanka

Objectives: Pregnancy weight gain is considered a modifiable factor for a better pregnancy outcome. The Institute of Medicine (IOM) of the National Academies in the USA has recommended gestational weight according to pre pregnancy BMI.

The aim of this study was to investigate and evaluate the impact of maternal pre pregnancy BMI, according to the WHO and Asian BMI categories and weight gain at term, on the perinatal outcome.

Methods: A descriptive cross sectional study was done at the Base Hospital, Thambuththegama. Pregnant women admitted to the antenatal ward for the delivery were recruited for this study. Descriptive data was entered on to a spread sheet and the analysis was done using SPSS 20th version. Chi-square and r values were used to calculate the outcome assessments of the pregnancy.

Results: Of the 552 pregnant women who participated in this study, 163(29.6%) had low BMI at the booking visit and 24 (4.4%) and 45 (8.2%) were categorized as obese according to the WHO and the Asian categories respectively. Among all BMI categories, IOM recommended weight gain was achieved by 182 (33%) and 296 (53.7%) had inadequate weight gain with 71 (12.9%) showing excessive weight gain. Nearly a half of the obese group (54.5%) achieved the recommended gestational weight. The prevalence of pregnancy induced hypertension (PIH) and gestational diabetes mellitus (GDM) in this sample were 5.1% and 5.5% respectively and were proportionately higher with the higher BMI at the booking visit. Obese females had a higher risk of large babies, lack of progress of the labour and caesarean deliveries. In contrast, women in the underweight BMI group showed better results for the studied outcomes, even better than the normal weight group, except for the low birth weight of the babies, which was significantly higher in the underweight category (19.0%). However, GWG was not a good predictor of selected pregnancy outcomes in this study.

Conclusion: Recommended BMI and GWG for Sri Lankan pregnant women need re-evaluation.

PLENARY LECTURES

IUCD: PAST, PRESENT, AND FUTURE

Gamini Perera

Sri Lanka

IUCD is an effective, safe and economical modern method of Contraception. It is a long-term reversible contraceptive (LTRC) and the most commonly used reversible method of contraception in the world.

The action is mainly by inducing an inflammatory reaction, which is spermicidal.

From the ancient practice of inserting a stone to camel uterus human IUCD has evolved from a Ring made from silkworm gut used in 1909 by Richard Richter in Germany. It has gone through Grafenberg ring, Ota ring, Margulies spiral, Lippes loop, Dalkon shield, different kinds of Copper containing devices and steroid medicated devices.

The currently used types are TCu 380A and LNG Intrauterine system. IUCD's have the complications of Pain at insertion, perforation, expulsion, sepsis and menstrual problems.

LNG IUS is expensive and indicated for women with heavy periods and is recommended for 05 years.

TCu 380A has been used from 04 weeks post-partum and with the introduction of PPIUD, first 48 hours Post-Partum is accepted as safe, effective and convenient. PPIUD can be inserted after vaginal delivery as immediate postpartum in the delivery room or late in the postnatal ward. It can also be inserted at Caesarean section through the uterine incision. Manual placement is recommended at Caesarean section and use of Kelly's Forceps (placental forceps) is recommended for vaginal insertions. Severe valvular Heart Disease, Rupture of membranes for more than 18 hours, evidence of puerperal sepsis and unresolved PPH are contraindications. PPIUD has the added advantages of pain free insertion and having hardly any risk of perforation. 1-3% of expulsion rates have been reported and it is less with trained inserting staff. In about 25% the removal thread may remain intra-uterine, which may reduce the risk of ascending infection.

For the future new types of IUCDs to reduce pain at insertion and side effects, anchoring methods, other medicated devices, and use of ultra-sound at insertions and follow-up are possible.

POLYCYSTIC OVARIAN SYNDROME

Ameet Patki

India

Polycystic ovarian syndrome (PCOS or PCOD) is a condition of unexplained hyperandrogenic chronic anovulation that most likely represents a heterogeneous disorder. About 10% of women in the reproductive age group suffer from this disorder.

Until date there is no accepted theory as to the pathogenesis of PCOS. Because of the diverse nature of the findings, it is unlikely that any single factor will explain the entire gamut of changes associated with PCOS. It appears more plausible that many factors trigger the occurrence of PCOS, some more common than others.

Once established, there is a well described chronicity and self-perpetuating mechanism of the syndrome.

It is clear therefore that PCOS is a lifelong situation in which possibly genetic factors, endocrine dysfunction and metabolic sequelae play a significant role.

An important advance in our understanding of this syndrome has been the realization of the pivotal role of insulin resistance in perpetuating the PCOS status. Insulin resistance represents a unifying component of the syndrome that is present as a common denominator not only in obese PCOS, but also in adolescent girls with hyperandrogenism, in women with multifollicular ovaries, and in apparently normal women with polycystic ovaries.

Treatment of Polycystic Ovary Syndrome and the goals are to prevent endometrial hyperplasia, atypia/cancer, Restore normal ovulation / fertility, Restore normal menstruation or correct hirsutism.

The treatment options selected depend upon the major concerns of the patient.

Various different treatment modalities are compared in this lecture. With the wide availability of various different pharmacological insulin sensitizers, ovulation induction agents and metabolic stabilizers including bariatric surgery, this lecture will help to choose the right modality for the right patient at the different age groups that PCO can present.

PUBLIC HEALTH AND HUMAN RIGHTS ASPECTS OF ABORTION

Sabaratnam Arulkumaran

UK

Abstract not available

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ORAL PRESENTATIONS

DOI: <http://doi.org/10.4038/sljog.v40i5.7850>

Theme 1

Maternal Morbidity and Mortality

ADVANCED MATERNAL AGE: PREVALENCE AND ITS DETERMINANTS IN A SELECTED MEDICAL OFFICER OF HEALTH DIVISION IN THE KANDY DISTRICT, SRI LANKA

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Introduction and objectives: Pregnancy and childbirth ensure our survival as a species. However, it is not without risks. Advanced maternal age (35 years and above) has always been cited as one of these risk factors with adverse implications for both the mother and the fetus. This study was aimed at evaluating the prevalence of advanced maternal age and its determinants in the Gangawatakorale MOH area in the Kandy district.

Method: A descriptive cross sectional study was conducted among of 206 pregnant mothers, attending field antenatal clinics in the Gangawatakorale MOH area. A self-administered questionnaire was used to gather data, which was analysed using SPSS 22.0.

Results: The participants' age ranged from 18 to 41 years with a mean age of 29.03 years. Only 16.5% (n=34) of the subjects were aged 35 years or above. A significant proportion of them had a history of primary infertility (Chi value: 12.777, df=1, p value=0.000), secondary infertility (Chi value: 29.539, df=1, p value=0.000), or had not planned their pregnancy (Chi value: 32.307, df=1, P value:0.000). Contraception failure was also significantly higher among those with advanced maternal age (Chi value:10.722, df=1, p value=0.001). Similarly, greater proportion of subjects in their fourth pregnancy were 35 years or above (Chi value: 17.885, df=3, p value=0.000).

On the other hand, ethnicity, voluntary postponement of first or subsequent pregnancies, level of education, employment status, and medical conditions in either of the partners were not significantly associated with advanced maternal age.

Conclusions and Recommendations: Primary and secondary infertility, unplanned pregnancies, contraception failures, and multi-parity were statistically significant determinants of advanced maternal age. Couples with infertility should be identified early at the field level and referred to specialist care for further management. Females who are above 35 years, should

be counselled regarding family planning, especially modern long acting reversible family planning methods once they have completed their families. Natural methods of contraception should be discouraged.

PROPORTION OF UNPLANNED PREGNANCIES, THEIR ASSOCIATED FACTORS AND HEALTH OUTCOMES OF WOMEN DELIVERING AT COLOMBO NORTH TEACHING HOSPITAL, RAGAMA

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Methods: A cross sectional study was carried out among 494 consecutive pregnant women selected by non-probability consecutive sampling who were admitted for confinement at CNTH. A pre-tested, structured, interviewer-administered questionnaire was used to collect data on antenatal women and intentionality measured by self-administered culturally adapted Sinhalese translation of six item London Measure of Unplanned pregnancy (LMUP). Maternal and newborn health outcomes were ascertained in each post-partum woman prior to discharge. The association between unplanned pregnancy and predictor variables were assessed in bivariate analysis using chi square test, odds ratio and 95% confident interval.

Results: The response rate was 97.8% and 17.2% of pregnancies ending at birth were unplanned, 12.7% were ambivalent and 70.1% were planned.

Associated factor profile of women with unplanned pregnancies include; unmarried women (OR 17.13 95% CI 2.09-140.5), educated up to the passing of GCE ordinary level of women (OR 2.33 95% CI 1.56-3.47) and spouse (OR 3.33 95% CI 2.14-5.17) and monthly household income below Rs.40, 000 (OR 1.82 95% CI 1.23-2.68), women who had initiated sex before 20 years of age (OR 2.74 95% CI 1.81-4.13), being a teenager (OR 4.06 95% CI 2.16-7.65), multi parity (p=0.003) and inadequate knowledge on emergency contraceptives (OR 1.52 95% CI 1.03-2.24). Less planned pregnancies were also significantly associated with anaemia, low mood for last two weeks, having a partner with problematic alcohol consumption, presence of gender-based violence, poor relationship satisfaction with partner and family. Inadequate pre-pregnancy preparation and antenatal care were associated with unplanned pregnancy. No difference was found in neonatal outcomes.

Conclusions: A sizeable proportion of pregnancies are unplanned. A number of modifiable factors such as teenage pregnancies, non-marital relationships and inadequate knowledge

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on emergency contraceptives are associated with unplanned pregnancies. Maternal anaemia, low mood and gender-based violence are found to be health outcomes of unplanned pregnancies.

CASE REPORT: OVARIAN ECTOPIC PREGNANCY: A RARE CASE LEADING TO DIAGNOSTIC DILEMMA

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Introduction: Prevalence of all types of ectopic pregnancies is around 11/1000. The most common site of decasualization apart from the uterine cavity is ampulla of fallopian tube. Primary ovarian pregnancy (OP) is a rare type of ectopic pregnancy accounting to only 0.15-3%. Transvaginal ultrasonography plays a pivotal role in diagnosis. Pre-operative diagnosis is still challenging. Ultrasonic features of OP include appearance of a wide, echogenic ring containing an echolucent area with peripheral colour Doppler activity with or without foetal cardiac activity or yolk sac. Surgery is the mainstay of management. Routine monitoring of Serum Beta HCG is reserved for inconclusive cases.

Case Report: A 22-year old, nulliparous lady was admitted with lower abdominal pain and per vaginal bleeding. She was pale on examination and had a pulse rate of 110bpm. Blood pressure (BP) was 80/50mmHg. She had a positive urine pregnancy test. Transvaginal ultrasound scan (TVS) revealed a normal size uterus with an empty cavity and a left adnexial mass measuring 4.5cm x 4.1cm with a large amount of free fluid. She was initially suspected to have a left sided ruptured tubal ectopic pregnancy. Immediate laparoscopy was performed after initial resuscitation. Laparoscopy revealed haemoperitoneum around 1000ml, normal bilateral tubes and ruptured ovarian lesion with the affected ovary attached to uterus with ovarian ligament. Laparoscopic enucleation of the ovarian lesion was performed with the aid of Harmonic® device. Specimen was retrieved with an Endo-bag® and was sent for histological analysis. Post-operative serial serum Beta-HCG was performed and it dropped from 1347.9mIU/ml to 523.4mIU/ml over 48 hours which excluded a missed ectopic pregnancy or the possibility of a ruptured corpus luteum. Histopathology revealed an ovarian ectopic pregnancy (gestational tissues with ovarian tissue). Patient had an uneventful recovery.

Discussion: Incidents of ovarian pregnancy is gradually increasing due to increased detection rate and increasing risk factors. Spiegelberg criteria are used to diagnose OP which includes sonography, surgical findings and histology. Routine measurement of serum Beta HCG is not recommended. Possible surgical management options are enucleation, wedge resection and oophorectomy by laparotomy or laparoscopy. In our case, during the laparoscopy ovarian lesion was clearly visualized and therefore enucleation was done with successful haemostasis while preserving maximal amount of ovarian tissues. It is suggested to carry out research on feasible medical management options for such cases since candidates are in their early reproductive ages.

A RARE CASE OF ACUTE DEMYELINATING DISEASE IN PREGNANCY TREATED WITH PLASMA EXCHANGE

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Introduction: Acute demyelinating disease (ADEM) in pregnancy is a rare autoimmune illness characterized by inflammation of central nervous system myelin with resultant white matter damage. ADEM includes a wide variety of clinical presentations, thus contributing to a complex differential diagnosis. It most frequently occurs in children during winter or spring months following an upper respiratory infection by viruses.

Case: A 26 years old female, Gravida 2 Para1 was admitted to our hospital at 37 weeks of pregnancy with a 2-day history of progressive weakness of lower limbs and difficulty in walking and 2-week history of progressive numbness. She has developed inability to pass urine associated with painful distention of the bladder of 12 hours' duration.

She was in her usual health two weeks back, she developed numbness up to the level of umbilicus, weakness of the lower limb over two days, but she managed to stay at home until she developed retention of the urine.

On examination, the patient was found conscious and rational. There was no pallor and she was afebrile, not cyanosed, anicteric, and hydration was satisfactory. She was breathing normally and saturation was 100% on air. Cardiovascular examination showed no abnormality. On abdominal examination, her fundal height was 37 cm and was not in labour. On neurological examination, all her cranial nerve activity was clinically normal. Upper limb examination was normal. She presented with all the features of flaccid diplegia with grade zero power in lower limbs. Muscle tone was decreased and deep tendon reflexes were lost. Sensory level was detected at the level of T9.

Patient was sent for medical care after analysis of her previous obstetric history, antenatal records, ultrasound fetal assessment after discussing with the physician. There were no features suggestive of growth restriction.

Patient was immediately referred to the ortho-maxillary team for removal of her mandibular palates which were inserted two years back due to mandibular fracture and MRI was done. There was a high intensity on T2 weighted MRI from T4 level up to conus medullaris. There was a well-defined intramedullary lesion at T9 vertebrae level showing hypo intensity in T1W, T2W and STIR with peripheral eccentric contrast enhancement. Vertebral bodies of thoracolumbar spine were normal in body height and narrow signal intensity. There was no cord compression or canal stenosis no extradural masses in the spine

The conclusion was acute demyelinating disease of the thoracic region with an area of acute haemorrhage at T9 level. MRI brain was normal. VEP shows anterior visual pathway demyelinating pathology suggestive of neuromyelitis optica.

On the fourth day of her illness, a decision was taken to perform a caesarean section. Surgery was conducted under general anaesthesia in a routine list. Intubation was done with high dose of Alfentanil. Suxamethonium was not given as she was still in the acute phase of the illness. Baby was delivered with good Apgar scores. Intravenous antibiotics were given at the time of induction for prophylaxis. Uterotonics were given at the end of the caesarean section for prophylaxis. She was then shifted to ICU. Intravenous morphine was used for pain relief. Breast feeding continued without difficulty. Enoxaparin was started after 24 hours of delivery for prophylaxis of DVT.

She was not improving with conservative management. Therefore, multidisciplinary team was summoned. She was started on high dose of prednisolone with barrier nursing on day 2 and plasma paresis was performed on the same day. Five cycles of plasmapheresis was completed. She had signs of recovery on day 4 (up going planter, reflexes present). Her clotting and coagulation profile were normal following plasmapheresis. She developed minor reactions on day 4 and was managed with IV hydrocortisone.

She was given IVIG for 5 days following plasma paresis and was transferred to the rehabilitation centre. She recovered completely after 2 months and was attending to her activities independently. She is followed up at medical clinics. Follow-up of the patient after 2 months showed no residual weakness.

Recommendation: Acute demyelinating disease presenting for the first time in pregnancy is rare. Management requires multidisciplinary approach to ensure the safety of mother and fetus. Diagnosis may be challenging due to overlaps in clinical and radiographic features. The MS variants and NMO-spectrum disorders can mimic ADEM, but they commonly recur and may require prolonged immunomodulatory or immunosuppressive treatment. Discriminating these disorders is not always possible at first presentation, but this should not delay treatment of the acute episode. If fulminant demyelinating disease does not respond to initial therapy, early immunosuppression with plasmapheresis should be strongly considered.

BREAKING THE DEADLOCK ON MATERNAL DEATHS IN SRI LANKA

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Introduction and objectives: Sri Lanka has the lowest maternal mortality rate (MMR) in the South Asia. However, it has not significantly reduced over the past decade (38.4 in 2006 and 33.8 in 2016). In 2016, out of 112 deaths, direct causes accounted for 55% of deaths. The leading causes were post-partum haemorrhage 15 (13%), heart disease 11 (10%) and hypertensive disorders 9 (8%). Regional variations of the MMR within the country ranged from 14-81. Out of the 112 maternal deaths, 68% were results of various delays and 55% were preventable. This study was aimed at ascertaining the quality of obstetric care contributing to the static maternal mortality rates in the country.

Method: An island wide telephone survey was done in 2018 to assess the different components of service necessary for quality service delivery in emergency obstetrics. Out of 102 specialist

care hospitals, 97 (95%) responded. It included all teaching hospitals (11), all provincial general hospitals (3) as well as 19 district general hospitals and 64 base hospitals. A middle grade medical officer from each specialist care hospital was interviewed using a pretested questionnaire.

Results: 24-hour service coverage: Specialist Obstetrician 76(78.4%), Specialist Anaesthetist 64 (66.0%), Specialist Physician 79 (81.4%), Cardiologist 21 (21.6%), blood bank 55 (56.7%). Dedicated operating theatre was available in 17 (17.5%), obstetric ICU 6 (6.2%) and HDU 22 (22.7%). The use of guidelines and protocols in postpartum haemorrhage and eclampsia was 41 (42.3%). Partogram use was 89 (91.8%), while use of Modified early warning score charts was only 19 (19.6%). Misoprostol was unavailable in 43 (44.3%) labour rooms. Labetalol and MgSO₄ unavailable in 24 (24.7%) and 17 (17.5%) base hospitals. Meeting; Risk management 28 (28.9%), Near miss management meeting 16 (16.5%), Multidisciplinary Team Meeting 25 (25.8%), doing regular audits 19 (19.6%). Skill drills 20 (20.6%), Partogram training 27 (27.8%). Distance to nearest specialist care 5-142 (mean 44±29.5) km and time 14-176 (mean 62.5 ±39) min.

Conclusion: Stagnant maternal mortality rate in Sri Lanka could be improved significantly by the provision of, geographically uniform accountable Obstetric services, drugs and infrastructure facilities, regular in-service training of staff, incorporation of guidelines, protocols and audits to clinical practice and the addition of multidisciplinary input to the clinical management.

THERAPEUTIC TERMINATION OF PREGNANCIES WITH HIGH RISK CARDIAC DISEASE: A CASE SERIES

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Introduction: Cardiac disease in pregnancy is the leading cause for maternal mortality in developed countries and the second commonest cause in Sri Lanka; its burden continues to rise due to surviving congenital heart disease and acquired heart disease like myocardial infarction.

Modified WHO category 4 cardiac diseases are advocated for therapeutic termination of pregnancy; owing to high maternal mortality. Pre-conception counselling, appropriate contraception and Early termination of unplanned pregnancies are live saving in severe cardiac disease.

We report a series of 10 cases, underwent therapeutic termination of pregnancy between 2014 to 2016, owing to high cardiac risk, in the university unit of a tertiary care teaching hospital in Sri Lanka, De Soysa Hospital for Women.

Clinical description: Median age of mothers was 27 years (range 16-42), representing all regions, all religions (Buddhists 7, Islam 1, Hindu 1, Christian 1) and races. All mothers were unemployed and only 2 had school education up to ordinary level. All spouses except 1 navy officer had been manual laborers resembling most were from lower social strata.

Eight were married, of two unmarried, one was living with the partner. Except one diagnosed first during pregnancy, all were unplanned pregnancies. Four were primigravidae, while 5 had living children.

Median (range) gestational age (POA) of admission was 11 weeks (7 to 18), and termination was 13 weeks (18-20) delays were mainly due to referrals.

The outline of the cases are as follows.

Case 1 – large PDA, sub aortic VSD, with a severe pulmonary hypertension.

Case 2 – teenager with pre-pregnancy primary pulmonary hypertension.

Case 3 – cyanotic heart disease, tetralogy of Fallot with, severe VSD and pulmonary atresia.

Case 4 – VSD with Eisenmenger's disease.

Case 5 – ACS(NSTEMI) underwent PCI.

Case 6 – Mitral valve replaced with grade 3 MR and AR.

Case 7 and 9 – large ostium secundum ASD with severe pulmonary hypertension.

Case 8 – ACS STEMI, following PCI.

Case 10 – Tight MS, failed PTMC, Mitral valve replaced with severe bi-ventricular ventricular dysfunction.

Means of termination were; using Mifepristone followed by Misoprostol; 3 occasions requiring more than 1 cycle and 3 occasions leading to surgical evacuation following failed medical induction.

All the terminations were done with involvement of multi-disciplinary team, in ICU setup; Recovery had been uneventful except for fever and vomiting (each 2 cases).

Median hospital, ICU stay (range) had been 18 days (range 7-36) and 6 days (3-11) respectively.

All received DVT prophylaxis, antibiotics and opioids analgesia, all were offered progesterone implants immediately and interval permanent contraception then, referred for cardiology follow up (1-5).

PREVALENCE OF POST TRAUMATIC STRESS DISORDER (PTSD) AFTER CHILD BIRTH AND ASSOCIATED FACTORS IN A SRI LANKAN POST-PARTUM MOTHER COHORT: A DESCRIPTIVE STUDY

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Introduction and objectives: Child birth is a stressful event. Post-traumatic stress disorder (PTSD) and Depression are psychiatric disorders which associate with stressful events as well as child birth. This study was conducted to assess the prevalence of PTSD among post-partum mothers and associated factors.

Methodology: A Cross sectional analytical study was conducted in Horana MOH area field clinic setting, over a period of eighteen months during year 2017 and 2018. A pretested interviewer administered questionnaire was used to collect demographic details and pre-pregnancy, intra-pregnancy, labour and postpartum risk factors. Self-administered, validated Sinhala versions of Edinburgh Post-partum Depression Screening Scale and PTSD Symptom Scale-Self Report: PSS-SR were used to assess the presence of postpartum depression (PPD) and PTSD respectively. Each participant was assessed one month, two months and six months after the delivery for PTSD and PPD. SPSS Statistical package was used to analyse the data. Prevalence was calculated as a percentage and associations were determined by chi squared test. Ethical approval was obtained from the Ethical Review Committee of Faculty of Medicine, University of Colombo.

Results: Total of 225 postpartum mothers were included in the study at one month. Out of them 214 and 211 were interviewed at 2 and 6 months after the delivery respectively. At postpartum one, two and six months the prevalence of PTSD was 2.7% (n=6), 0.9% (n=2) and 0.5% (n=1) respectively. Three significant associations were found for post-partum PTSD were Poor family support (P=0.031), physical ailments after pregnancy (p=0.025) and presence of Post-partum Depression (P=<0.001). There were no significant associations between PTSD and education level of mothers, timing of delivery, Gap between pregnancies, planned or unplanned pregnancies, history of subfertility, history of psychiatric disorders, partner violence, number of antenatal hospital visits, ante-natal counselling, fear of pain, hospital of delivery, private sector delivery, type and mode of delivery, labour duration, verbal or physical abuse, presence of labour companion, mental trauma, post-partum haemorrhage, manual removal of placenta, negative birth experience, low Apgar at delivery, neonatal and maternal intensive care, birth defects, breast feeding problems and opportunity to discuss problems with a health care worker.

Conclusions: PTSD is a post-partum psychiatric condition present in minority. It is significantly associated with poor family support, physical ailments and presence of postpartum depression.

Theme 2 Health Economics

CHALLENGES OF COSTING A SURGICAL PROCEDURE: A CASE STUDY ON HYSTERECTOMY

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Introduction and objectives: It is vital to enquire in to cost of healthcare to ensure that maximum value for money is obtained with available resources. However, there is a dearth of information on cost of healthcare in lower-middle income countries. Our aim was to study the costs for three routes of hysterectomy in benign uterine conditions; total abdominal (TAH), non-descent vaginal (NDVH) and total laparoscopic hysterectomy (TLH).

Method: A societal perspective with a micro-costing approach was applied to find out direct and indirect costs. Patients were recruited from a district general hospital (Mannar) and an urban tertiary care hospital (Ragama). The total cost incurred during pre-operative, operative, post-operative periods and convalescence included direct costs of labour, equipment, investigations, medications and utilities. Indirect costs included of out-of-pocket expenses, productivity losses, carer costs and travelling. Time-driven activity-based costing was used for labour costs and top down micro-costing was used for utilities.

Results: The median direct cost [(interquartile range), number] of TAH was Rs. 43054 [(41604 - 46243), n=24] versus Rs. 39430 [(37690 - 43054), n=25] (Mann-Whitney U test, $p<0.01$), NDVH was Rs. 40590 [(36965 - 44793), n=23] versus Rs.40155 [(36676 - 43779), n=26] (Mann-Whitney U test, $p=0.984$) and TLH was Rs. 47258 [(44359 - 51897), n=24] versus Rs. 53056 [(48128 - 55811), n=25] (Mann-Whitney U test, $p=0.16$) at Mannar and Ragama respectively. The median indirect cost (interquartile range) of TAH was Rs. 4204 (2174 - 12757) versus Rs. 9857 (5219 - 17251) (Mann-Whitney U test, $p<0.05$), NDVH was Rs.4349 (2174 - 8263) versus Rs. 10872 (5943 - 34646) (Mann-Whitney U test, $p<0.01$) and TLH was Rs. 6668 (2754 - 12902) versus Rs. 7538 (4929 - 21454) (Mann-Whitney U test, $p=0.28$) at Mannar and Ragama respectively.

Sensitivity analysis using the best case scenario and a minimum wage of Rs. 1500 per day till time to recovery for TAH, NDVH and TLH showed a total cost of Rs. 87557, 78715 and 79150 respectively.

Conclusions: Time-driven activity-based costing for labour and top down micro-costing of utilities helped to overcome logistical difficulties. Indirect costs at Ragama were significantly more than that at Mannar. Sensitivity analysis adjusted for the best case scenario and minimum wage suggested that NDVH and TLH may in fact be cheaper than TAH. The costing method used in this study is a simple and reproducible way of calculating costs of a surgical procedure which will serve as a guide for clinicians and policy makers in similar settings.

COST-EFFECTIVENESS OF THREE ROUTES OF HYSTERECTOMY: A MULTI-CENTRE RANDOMIZED CONTROLLED TRIAL

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Background: Hysterectomy is the commonest major gynaecological surgical procedure. The aim of this study was to evaluate the cost-effectiveness of non-descent vaginal hysterectomy (NDVH) and total laparoscopic hysterectomy (TLH) compared to total abdominal hysterectomy (TAH).

Methods: A randomized controlled trial was conducted at the gynaecology unit, District General Hospital, Mannar and professorial gynaecology unit, North Colombo Teaching Hospital, Ragama. Study population (n=49 per arm) were women needing hysterectomy for non-malignant uterine causes. Exclusion criteria were uterus ≥ 14 weeks, previous pelvic surgery, those requiring incontinence/pelvic floor surgery, comorbidities which preclude laparoscopic surgery and women who were illiterate. Primary outcome was the time to recover following hysterectomy which was considered as the earliest time to resume activities done prior to surgery. A Kaplan-Meier survival analysis was done with pairwise comparison through log-rank test for the primary outcome. A micro-costing approach calculated utilization of hospital resources from the time of presentation up to six months after surgery. Incremental cost-effectiveness ratios (ICER) were obtained by calculating the incremental costs divided by the incremental effects (time to recover) for the intervention groups (NDVH and TLH) over the standard care (TAH) group.

Results: The overall combined results from both centres did not show a significant difference in time to recover (median, 95% confidence interval) between TLH [30 days (29.0-31.0)], NDVH [32 days, (28.3-35.7)] and TAH [35 days (32.0-38.0)] (Kruskal-Wallis test, $p=0.373$). There was a significant difference in direct cost (median, inter quartile range) between TAH [Rs.41943, (38256-44476)] versus TLH [50608 (46670-54859)], Mann-Whitney U test, $p<0.001$, NDVH [Rs.40373 (36932-44212) versus TLH, Mann-Whitney U test, $p<0.001$. There was no significant difference between TAH and NDVH, Mann-Whitney U test, $p=0.076$. ICERTLH-TAH was Rs. 1733/day compared to TAH. ICERNDVH-TAH was not calculated as both the cost and effect were more favourable than TAH. ICERTLH-NDVH was Rs.3412/day compared to NDVH.

Conclusion: There was no significant difference in time to recover between TLH, NDVH and TAH. The optimum approach to hysterectomy appears to be NDVH in terms of cost-effectiveness due to its lower cost, a fact that was suggested from the interim analysis presented at SLCOG sessions in 2017.

Theme 3

Gynaecological Oncology

MOLECULAR DETECTION OF HUMAN PAPILLOMA VIRUS PREVALENCE AND RELATED CERVICAL DYSPLASIA IN CLINICALLY NORMAL FEMALE COHORT IN SRI LANKA

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Introduction and objectives: Cervical cancer (CC) is virtually attributable to persistent genital infection with high risk genotypes of Human Papilloma Virus (HPV). Cytology based CC screening primarily with Papanicolaou test (Pap test) has reduced the incidence of CC but does not facilitate diagnosis of early HPV infections prior to any cytological abnormalities. Molecular marker based screening of HPV infection is not popular in Sri Lanka owing to the less accessibility and high cost. Hence the current study intended to develop a relatively low cost molecular diagnostic test and determine the CC risk due to HPV infection by determining the prevalence of HPV genetic material (DNA).

Materials and methods: Descriptive cross sectional study was carried out in purposively sampled 201 women (age 20-65 yrs.) attending outpatient gynaecology clinics in Teaching Hospitals of Peradeniya and Kandy. Prevalence of HPV DNA was evaluated using a General Primer (GP5+/6+) Polymerase Chain Reaction (PCR) assay and compared with the blinded cervical cytology. A questionnaire was also administered to collect the demographic information of the participant.

Results: The mean age of the study group was 39.2 ± 10 yrs. The mean age at first sexual intercourse was 24.3 ± 5 years. All participants were non-smokers and 20.4% of the women were nulliparous. Of the 201 women 64.7% had no any contraception use, 12.8% had IUCD, 14.3% were taking oestro-progestins and 8.1% had undergone tubal ligation. Normal Pap cytology was observed in 81% of the cohort, but minor cytological abnormalities like 4% of ASCUS, 1.5 %, ASC-H and 1% LSIL were observed. Only 1.5% of the women had glandular cell atypia and 11% of the PAP samples were unsatisfactory for evaluation. The PCR based diagnostic method detected a HPV prevalence of 6.5% in clinically normal women in which two infected women had minor cytological abnormalities. The total cost of single HPV screening assay is approximately Rs. 2500.00 without the equipment investment which is affordable to the public compared to the commercial available detection platforms.

Conclusion: Despite having normal cytology the prevalence of HPV DNA is higher in the studied female cohort. Further molecular testing should be employed to confirm the infection in HPV DNA positive women and regular follow-ups can be recommended. However, the present findings warrants further investigations on prevalence and genotyping of HPV using larger island wide sample cohort.

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Theme 4

Urogynaecology and pelvic floor

Abstracts not available

Theme 5

Education and Training

AWARENESS ON CERVICAL CANCER AND SCREENING AMONG A SRI LANKAN FEMALE COHORT; KNOWLEDGE AND PRACTICES ON RISK FACTORS AND PREVENTION

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Introduction and objectives: Cervical cancer is the second leading female cancer type in Sri Lanka. Unawareness of risk factors, prevention methods and socio-economic-cultural factors hinder women in participating to the current screening programs. Therefore, this study was designed to assess the knowledge and practices among a Sri Lankan women cohort on cervical cancer prevention and risk reduction in order to enhance efficacy in current screening program.

Methods: A descriptive cross sectional study was conducted on a purposively sampled 135 (19-65 years) women cohort attending outpatient gynaecology clinics in Teaching Hospitals Kandy and Peradeniya. A self-administered, structured and pretested questionnaire covering sociodemographic characteristics, knowledge and practices related to cervical cancer screening, prevention and risk factors was administered. In questionnaire, each response was scored and the respondents were grouped in to three major categories (level of scores were good when >75%, fair 50-75% and poor when < 50%). Chi-square and correlation analysis were performed to evaluate association between the knowledge, practice and socio-demographic characteristics using statistical software for social sciences (SPSS), version 20.0.

Results: The mean age of the participants was 37.5 ± 9 yrs. Of the 135 women, 55.6% had the education up to advanced level examination. Majority (83.7 %) of the women had poor knowledge on cervical cancer risk factors and prevention measures whereas only 1.6 % of the women had a good knowledge (score $>75\%$). When practices concerning cervical cancer prevention and risk reduction were considered 53% women marked fair scores. However, scores of knowledge was not significantly correlated with the scores of practice ($p>0.05$). Majority (81%) of the participant had heard about cervical cancer but only half of the participants knew about cervical cancer screening test (Pap test). The “age of first Pap test to be done” was answered correctly only by 50% of the women and only 20% of the women knew about HPV vaccination as a cervical cancer preventive measure. Only 43% of the women in the screening age had undergone a Pap test. Majority (57.3%) of the women had received information regarding cervical cancer screening through mass media.

Conclusion: The knowledge about cervical cancer screening and prevention is lower even among educated women in the sample cohort. This urges the need to raise the cervical cancer awareness among women at screening age and encourage them for active participation in the screening programs.

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CAN SIMULATED WORKSHOPS SIGNIFICANTLY IMPROVE VISUAL ESTIMATION OF BLOOD LOSS IN LABOUR ROOM STAFF? AN AUDIT

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Introduction: Postpartum haemorrhage is a major cause of morbidity and mortality in obstetric practice worldwide. In developing nations, where the vast majority of maternal deaths occur, the problem is exponentially greater. Underestimation of peripartum blood loss and delayed blood component therapy seem to be common factors in many cases of avoidable haemorrhage-related maternal mortality. Inaccurate blood loss assessment can result in significant adverse sequelae; overestimation can result in unnecessary transfusion, and perhaps more important, underestimation in delayed treatment.

Objective: Assess the basic knowledge about postpartum haemorrhage and assess the accuracy of visual estimation of blood loss and determine whether an educational programme with simulated workshops can improve the knowledge of PPH and accuracy of visual estimation of blood loss.

Study setting: Teaching hospital, Mahamodara, Galle, Sri Lanka

Study population: Labour room staff including nurses and midwives attached to teaching hospital, Mahamodara, Galle, Sri Lanka

Method: Expired whole blood was obtained from the blood bank, and five simulated scenarios with known measured blood

loss were created using common surgical materials which was used as the explicit criteria for blood loss. Five single best answer questions prepared with regards to basic knowledge of postpartum haemorrhage. Answering the question paper and visually estimated blood loss scenarios were performed by labour room staff before and after a one-hour lecture and practical session of visual estimation of blood loss. 10 Marks allocated for correctly marked question and scenario.

Result: There were 32 participants of which 17 nurses and 15 midwives. Their working experience in labour units range from 4 to 15 years (mean 7.4 years). All participants scored below 50 Out of 100 marks before the workshop of which mean score was 35. Average marks for 5 simulated scenarios was 20 out of 50 of which significant underestimation of estimated blood loss occurred frequently. After the simulated workshop mean score significantly ($p<0.05$) increased up to 75 and average marks for 5 simulated scenarios improved significantly ($p<0.05$) up to 40. there was no significant difference between nurses and midwives in both pre and post workshop ($p>0.05$)

Conclusion: Accurate visual estimation of blood loss is known to facilitate timely resuscitation, minimizing the risk of disseminated intravascular coagulation and reducing the severity of haemorrhagic shock. The educational process with simulated workshops may assist labour room staff in everyday practice to more accurately estimate blood loss and recognize patient at risk of haemorrhagic complications.

Theme 6 Feto-Maternal Medicine

ASSESSING IADPSG CRITERIA FOR GESTATIONAL DIABETES MELLITUS DIAGNOSIS IN SRI LANKAN PREGNANT WOMEN

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Introduction and objectives: Gestational diabetes mellitus (GDM) is a condition of glucose intolerance first recognized during pregnancy. Currently, the guidelines for diagnosing GDM, as recommended by the International Association of Diabetes and Pregnancy Study Groups (IADPSG) and adopted by the World Health Organization (WHO) in 2013, include an elevation in either fasting (≥ 5.1 mmol/L), 1-hr (≥ 10.0 mmol/L) or 2-hour (≥ 8.5 mmol/L) venous plasma glucose level after a 75-gram glucose intake. IADPSG criteria is widely adopted in many

countries. Clinicians have questioned the applicability of these diagnostic thresholds for different ethnicities. Therefore, we aimed to examine the prevalence of GDM diagnosed by three different guidelines and its association with offspring birthweight, in a hospital-based observational study among Sri Lankan pregnant women.

Methods: Medical records of 795 women with singleton pregnancy who attended two tertiary hospitals in Sri Lanka were utilized for the following information: age, height, weight and gestational age at the booking visit, 75g oral glucose tolerance test with fasting, 1- and 2-hour glucose readings after 20 weeks of gestation, and offspring birthweight. Body mass index was calculated at the booking visit. Following diagnostic thresholds were applied to define GDM: IADPSG criteria, Sri Lanka national guideline and WHO 1999. We calculated crude and age- and BMI-adjusted prevalence rates of GDM using STATA. Venn diagrams were used to represent the individual and overlapping diagnosis of GDM by each time point of glucose level.

Results: The crude, and age- and BMI adjusted GDM prevalence, were as follows: 31.2% and 31.2% for IADPSG criteria; 21.3% and 27.4% for Sri Lanka national guidelines; and 21.8% and 28.0% for WHO 1999. GDM diagnosed using the IADPSG criteria, or using Sri Lankan guidelines, had significant associations with birthweight in unadjusted models, yet the associations attenuated to non-significance after adjusting for age and BMI. It is notable that effect estimates for birthweight did not differ greatly among women diagnosed with GDM by IADPSG only and in those diagnosed with GDM by IADPSG and Sri Lankan guidelines. Linear regression of GDM diagnosed by WHO 1999 was not associated with birthweight in either unadjusted or adjusted models.

Conclusions: The IADPSG criteria appeared to have a better diagnostic value, in terms of identifying cases of GDM and in predicting birthweight across all three guidelines. Our results suggest that adopting the IADPSG criteria for diagnosing GDM may be important in reducing hyperglycaemia-related outcomes in Sri Lankan women.

ADVANTAGE OF DETECTING MID CAVITY IMPLANTATION OF INTRAUTERINE PREGNANCY IN EARLY FIRST TRIMESTER

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Introduction: The term implantation is used to describe process of attachment and invasion of the uterus endometrium by the blastocyst.

The implantation of the embryo usually occurs at the uterine fundus. The ring and the eccentric position of gestation sac are best appreciated in a cross section of the uterus. The implantation site can be estimated from the location of the very early gestation sac by transvaginal ultrasonography.

Objective: To describe the diagnosis, management and final outcome in mid cavity implantation of gestation sac.

Methods: 76 cases of high risk pregnancies were detected during the period of three years from 2015 May - 2018 May. Mid cavity implantation of the gestation sac was identified in the initial transvaginal ultrasound examination at 5-7 weeks of POA by a fetal medicine specialist. Pregnancies were followed up with serial ultra sound scanning and Doppler studies until final outcome.

Results: In this study group 64 have completed their pregnancy. Out of them 52 (%) have delivered. 19% ended up in a miscarriage. Among who delivered 61% were term deliveries and 19% were preterm deliveries. From the deliveries 27% had low birth weight babies while 2% had IUGR, 2% had postpartum haemorrhage and 2% ended up in neonatal death (due to PROM). From this study group threatened abortions were detected in 19%. Oligohydramnios was seen in 17% and 4% had antepartum haemorrhage. Nearly 1/3rd of patients had low implantation of placenta. 25% had to undergo assisted reproductive techniques due to subfertility. GDM was detected in 7% while 1% had hypertension. Also 2% were found to have structural uterine anomalies (bicornuate uterus).

Conclusion: Low implantation of gestation sac should be ideally detected in early first trimester (before 8 weeks). High risk management should be offered to these patients. Unfavourable pregnancy outcomes such as IUGR, threatened abortion, miscarriages, placenta praevia and sudden IUD should be anticipated and patients have to be counselled about poor prognosis.

ADVERSE OBSTETRIC AND PERINATAL OUTCOMES DUE TO ADVANCED MATERNAL AGE

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Introduction: Advance maternal age is generally defined as pregnancy in women aged 35 years or older. As maternal age increases fertility declines and the rate of spontaneous abortion increases. Studies of pregnancies in older women have shown higher inherent risk for a number of maternal and perinatal morbidities. They are more likely to have pre-existing medical conditions, obstetric complications, adverse labour and birth outcomes. The risk of trisomy 21 and chromosomal abnormalities also increase with increasing maternal age. Study in UK found that women aged 40+ years at delivery had a significantly increased risk of still birth, preterm birth, macrosomia and caesarean delivery. Advance maternal age was also found to be associated with an increased risk of fetal death from intrapartum asphyxia at birth.

Objective: To describe the adverse fetal and maternal outcomes associated with advance maternal age.

Method: 131 patients with advanced maternal age (>40 years) were seen during the period from January 2015 to May 2018. 113 patients had completed their pregnancy and others are still being followed up. Pregnancies were followed up with high risk fetal maternal assessment and serial ultra sound scans until their delivery.

Results: In this study group, 12 patients were more than 45 years of age and 8% had to undergo assisted reproductive techniques to achieve their pregnancy. 2 patients had to undergo amniocentesis and 2 underwent NIFTY. Prevalence of pre-existing diabetes mellitus was 11% and pre-existing hypertension in 8%. 113 have completed their pregnancy. Among who delivered 54% were term deliveries and 21% preterm deliveries. 23% resulted in miscarriage. Out of 85 who had live births 2% had congenital anomalies. 2% patients had placental abruption. 10% of the study group had oligohydramnios. 15% had GDM and 10% were found to have pregnancy induced hypertension.

Conclusions: Advance maternal age is associated with more adverse maternal and fetal outcomes. Women should have pregnancy counselling regarding these outcomes. Women should be encouraged to conceive when they are young. Pre pregnancy medical optimization should be done in all elderly maternity patients. Adverse outcomes should be anticipated with advance maternal age and high risk management should be provided to the women.

INCIDENCE OF GENETIC POLYMORPHISM IN HIGH RISK OBSTETRIC AND INFERTILE POPULATION

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Introduction: The gross change or abnormality in chromosome is usually designated as chromosomal aberration. These aberrations may be of two kinds – Spontaneous and Induced aberrations. Spontaneous aberrations are grouped into two broad categories – Structural and Numerical aberrations. The structural aberrations of chromosomes consist of deletion, duplication, inversion and translocation. There are three basic types of translocation simple, reciprocal and shift. The chromosomal aberrations are identified with bad fetal outcomes and poor fertility outcomes in many instances.

Objective: To investigate the incidence and contribution of chromosomal abnormalities in high risk population for obstetric care and infertility.

Method: 44 patients with genetic polymorphism were detected during the period of 2017 January to 2018 May in high risk obstetric and infertility patients. 21 were pregnant and they were followed up with high risk fetomaternal assessment and serial ultrasound scans until their delivery. 23 patients are under assisted reproductive techniques due to subfertility.

Results: From the 21 pregnancies 11 have delivered and 9 are being followed up and 2 ended up in a miscarriage.

The commonest chromosomal aberrations detected in both subfertile and pregnant patients are 22Pstk+, 21Pstk+, 13Pstk+, 14Pstk+, 15Pstk+, 9qh+, Yqh-

Chromosomal aberrations detected only in subfertile patients are Pstk+, 9qh-, Yqh+, 47XXY[1], 46XY[19]

The frequency of chromosomal aberrations detected in the high risk population are 21Pstk+ (42%), 13Pstk+ (35%), 14Pstk+

(28%), 15Pstk+(28%), 22Pstk+ (26%), 9qh+(19%), Yqh-(9%), 22Ps+(5%), Pstk+(5%), 9qh-(2%), Yqh+(2%).

Frequency of chromosomal aberrations detected in subfertile patients 21Pstk+(43%), 22Pstk (30%), 13Pstk+(30%), 15Pstk+(26%), 9qh+(22%), 14Pstk+(16%), Yqh-(13%), Pstk+(13%), 9qh-(4%), Yqh+(4%), 47XXY[1] (4%), 46XY[19](4%).

Frequency of chromosomal aberrations detected in pregnant patients 21Pstk+(43%), 13Pstk+(43%), 22Pstk+(38%), 15Pstk+(33%), 14Pstk+(29%), 9qh+(14%), Yqh-(5%).

Frequency of chromosomal aberrations detected in patients with recurrent miscarriages 13Pstk+(11%), 14Pstk+(11%), 15Pstk+(11%), 22Pstk+(11%), 9qh+(7%), 21Pstk+(5%), Pstk+(2%), 22Ps+(2%), Yqh-(2%)

Chromosomal aberrations detected in pregnancy outcome of low birth weight 13Pstk+, 15Pstk+, 9qh+, 21Pstk+, 22Pstk+

Significant proportion of patients with chromosomal aberrations in 13 (13Pstk+) and Y chromosome (Yqh-, Yqh+) had bad pregnancy and infertility outcomes. They required close monitoring during their infertility treatment and pregnancy.

Conclusion: Investigating high risk obstetric population for genetic polymorphism is important to predict bad fetal outcome as well as poor response to infertility treatment.

NEONATAL OUTCOMES OF WOMEN WITH PRE-GESTATIONAL EXCESS WEIGHT

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Background and objectives: An increasing trend of prevalence of overweight and obesity is noted worldwide over the past few decades. Pre-gestational excess weight has shown negative impact on neonatal outcome. Solid data are essential in formulating preventive strategies to break the vicious cycle of excess weight in pregnancy.

To describe neonatal outcomes of women with pre-gestational excess weight delivered at a tertiary care hospital in Sri Lanka, a South Asian country.

To describe the association between maternal pre-gestational body mass index (BMI) with neonatal macrosomia and their abdominal circumference.

Methods: A hospital-based descriptive cross sectional study was conducted. A sample of 535 women with reported pre-gestational BMI >25 kg/m² in antenatal pregnancy record delivering at postnatal wards of Colombo North Teaching Hospital were recruited using non-probability consecutive sampling method. An interviewer-administered questionnaire was used for data collection.

A sample of 155 macrosomic (>3.5 Kg) babies were recruited from the same ward settings and compared with 155 normal weight babies in a case-control analysis to ascertain maternal obesity with macrosomia.

Results: Majority of newborns were male (n=307,57.4%) compared to female babies (n=228,42.6%). A significant proportion (n=85, 15.9%) of babies were delivered premature.

Birth weight was within 2.5Kg - 3.49 Kg in 55.1% (n=101), macrosomic 26% (n=139) and low birth weight 18.9% (n=295). Many 68.7% (n=307) reported neonatal morbidity and 57.4% (n=307) babies needed admission to Special Care Baby Unit. Five (1.1%) still births and 1 neonatal death were reported.

Increased maternal BMI is at high risk of macrosomic baby (OR=110 CI 49.21-246.47) and neonatal abdominal circumference >30cm (OR=11.8, CI 5.58-24.94).

Conclusions: Pre-gestational maternal excess weight is associated with multiple neonatal adverse outcomes; premature delivery, macrosomia, low birth weight, neonatal complications and high abdominal circumference. These can be prevented by pre-pregnancy counselling and planned pregnancies with appropriate BMI.

INITIAL RESULTS OF ONE HOUR VERSUS TWO HOURS POSTPRANDIAL BLOOD SUGAR CONTROL FOR PREGNANT MOTHERS AT PROFESSORIAL OBSTETRIC UNIT, TEACHING HOSPITAL PERADENIYA

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Introduction: It is well known that both pre-excising and gestational diabetes mellitus in pregnancy is associated with multiple maternal and fetal complications. There are various guidelines developed to reduce these complications, yet there is no universal agreement regarding the ideal management. For those with pre-excising or gestational diabetes mellitus the control of blood sugar is assessed either with 1st hour post-prandial blood sugar values or with the 2nd hour post-prandial blood sugar values.

Objectives: To compare the long-term blood glucose control (HbA1c values) of women followed up with 1-hour postprandial blood sugar values versus 2-hour postprandial blood glucose control, in pregnant mothers managed in antenatal ward at professorial unit, Teaching Hospital Peradeniya.

Methods: A prospective cohort study was carried out among 136 pregnant mothers who were diagnosed with gestational diabetes or pre-excising diabetes mellitus and were managed in two different clinics at professorial unit, Teaching Hospital Peradeniya. The blood glucose control in-group 1 (n=68) was assessed and optimized with 1st hour postprandial blood sugar values throughout the pregnancy. Group 2 (n=68) blood sugar assessment and control optimized with 2nd hour postprandial values throughout the pregnancy. Following delivery all the subjects were reassessed for the long-term blood sugar control with blood HbA1c analysis. Means of HbA1c were calculated and analyzed with independent t test. In addition to the anthropometric measures of the baby, the birth weights and complication of pregnancy were assessed and analyzed using descriptive statistics and Chi Square test.

Results: Of the subjects 97.1% were diagnosed with gestational

diabetes mellitus. The mean value of HbA1c for the group managed with 1st hour blood glucose values was 5.73. The mean HbA1c of the group managed with 2nd hour blood glucose values was 6.04. The difference was statistically significant between the two groups (p<0.05) revealing a superior control in the group managed with 1st hour blood glucose values. The occurrence of fetal macrosomia was significantly (p<0.05) low in the one-hour postprandial blood sugar control group (5.9%) compared to the other group.

Conclusion: Long-term control of blood sugar was significantly superior among the subjects managed with 1st hour postprandial blood sugars.

SURVEILLANCE OF FINAL OUTCOME OF IN VITRO FERTILIZATION USING PRE-IMPLANTATION GENETIC SCREENING IN SRI LANKA: AN OBSERVATIONAL STUDY

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Introduction and objectives: Chromosome abnormalities are well-established as one of the major factors for failed implantation in in-vitro fertilization (IVF) treatment. Pre-implantation genetic screening (PGS) as a method for assessing embryo's karyotype has been used in screening chromosome aneuploidies. It is increasingly being utilized in IVF centres worldwide. Since the first introduction of PGS in 1990, PGS has evolved from PCR based technique to FISH (Fluorescent In-Situ Hybridization) to finally Next Generation Sequencing (NGS) base platform. IVF has been available in Sri Lanka since the late 1990's; however, commercial PGS services have only become available as recently as January 2018.

Therefore, the objective of this study was to evaluate the chromosomal aneuploidies of IVF embryos sent for PGS analysis by a single IVF centre and to co-relate euploid embryos with their clinical pregnancies.

Methods: Embryos were biopsied at the blastocyst stage in WISH Fertility and IVF Clinic at the 3rd day of post fertilization. One to ten cells were isolated, washed and prepared for screening using the Ion ReproSeq™ PGM kit according to manufacturer's instructions. DNA from each embryo was barcoded and then sequenced on the Ion™ Personal Genome Machine using 316 chip. Sequencing data generated was analyzed using Ion Reporter™ software.

Retrospective study was carried out in all embryos sent for PGS analysis at the Credence Genomics Pvt. Ltd. diagnostic laboratory between January 2018 and May 2018. Outcome information was collected from the WISH Fertility and IVF Clinic following embryo transfer.

Results: A total of 101 embryos were screened for chromosomal abnormalities prior to implantation. Thirty two embryos were

found to have no aneuploidies and were suitable for implantation. Of the 32 normal embryos 23 embryos have been transferred to date. Clinical pregnancies were reported from 12 transferred embryos, giving a success rate of approximately 52.17% (12/23).

Conclusion: It is widely reported that the conventional success rate for IVF ranges from 20-45% depending on the mother's age. As viability of embryos depends heavily on chromosomal copy number and stability, the use of PGS leads to an increase in success rate. As shown in this study, PGS is commercially available in Sri Lanka and can increase success rate for implantation up to 52%.

ASSOCIATION OF MATERNAL ANTHROPOMETRIC AND SOCIO-DEMOGRAPHIC FACTORS WITH LARGE FOR GESTATIONAL AGE (LGA) NEWBORNS

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Introduction: There is an increased trend of delivering large for gestational age (LGA) newborns globally, which has already caused significant impact on health, nutrition, economics and social aspects. LGA newborns are more vulnerable for complications develop from intrauterine life to adulthood and it is becoming additional burden to the health care and economic state of the country. However, we lack published data on incidence, trend and factors affecting LGA newborns in Sri Lanka. Determination of risk factors associated with LGA newborns would help to formulate and implement effective preventive measures.

Objectives: To determine the association of maternal socio-demographic and anthropometric factors with large for gestational age newborns and to determine the association of fetal sex with large for gestational age newborns.

Method: A case control study was carried out at obstetrics and gynaecology unit, Teaching Hospital Kandy from 01.01.2016 to 31.12.2016. Systematic sample technique was used and study sample was consisted of 44 cases and 132 controls. Pretested interviewer administered questionnaire was used for data collection. Significance of associations between dependent and independent variables was estimated using Probit regression model. Probit coefficient was estimated to assess the significance and respective marginal effects were estimated to assess the magnitude of significance. STATA software was used for analysis. Ethical clearance was obtained from ethical review committee, Teaching Hospital Kandy.

Results: According to probit regression estimates of socio-demographic factors, maternal parity of two (Coefficient 1.89: 95% CI 0.75-3.03: P<0.05) or more (Coefficient 2.37: 95% CI 0.92-3.82: P<0.05), Monthly family income of more than 30,000/= rupees (Coefficient 2.28: 95% CI 0.92-3.63: P<0.05) and Tamil ethnicity (Coefficient 2.10: 95% CI 0.69-3.52: P<0.05) were statistically significant risk factor. In the analysis, maternal age (Coefficient 0.09: 95% CI -0.05-0.23: P>0.05), mother's occupation (Coefficient 0.08: 95% CI -1.01-1.17: P>0.05) and maternal educational level (Coefficient 1.68: 95% CI -0.30-3.66:

P>0.05) were not significant risk factors at 5% significance level. Considering the maternal anthropometric measurements, maternal weight gain during pregnancy (Coefficient 0.77: 95% CI 0.50-1.03: P<0.05) was a significant risk factor. Maternal BMI at booking visit (Coefficient 1.76: 95% CI -0.34-3.85: P>0.05), maternal weight at booking visit (Coefficient -0.63: 95% CI -1.5-0.26: P>0.05) and maternal height (Coefficient 0.56: 95% CI -0.08-1.2: P>0.05) were not significant risk factors in the analysis at 5% significance level. Fetal sex (Coefficient -0.69: 95% CI -1.5-0.13: P>0.05) was not a significant causative factor at 5% significance level.

Conclusions and recommendations: Among maternal socio-demographic factors, high monthly family income, parity of 2 or more and Tamil ethnicity were determined as statistically significant risk factors for LGA newborns. Among maternal anthropometric measurements, increased weight gain during pregnancy was determined as significant modifiable risk factor for LGA newborns. Maternal weight gain during pregnancy should be monitored throughout the antenatal period from the booking visit to identify mothers at risk. Effective interventions should be designed to minimize the negative impact on mothers at risk.

Key words: Large for gestational age, Anthropometric, Socio-demographic

PREGNANCY OUTCOME OF MOTHERS WITH GESTATIONAL MELLITUS IN A TERTIARY CARE CENTRE; SRI LANKA

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Introduction: Reported prevalence of Gestational Diabetes Mellitus (GDM) varies from 0.6% in China to 15% in Indian-born Australians. Evidence is increasing that GDM raises the risk of adverse clinical consequences in the fetus. Good glycaemic control is known to reduce the adverse outcomes. Even though, highly improved outcomes have been reported, reflected by a dramatic decline in maternal and perinatal morbidity and mortality over the past few years, debate persists on the care of pregnant women with GDM.

Objectives: The objectives of this study were to determine the pregnancy outcomes of gestational diabetes mellitus in Sri Lankan population.

Methods: Cohort of pregnancies diagnosed with GDM (n=389) according to WHO criteria were followed up for completion of their pregnancy with 1344 pregnant women registered in the period between 2015 to 2016 in Obstetric unit in Colombo North Teaching Hospital, Sri Lanka.

Results: Significant risk of adverse events were observed for macrosomia (RR = 1.32, 95% CI 1.24 - 2.22; p<0.002), large for gestational age (RR = 1.54; 95% CI 1.35 - 1.89; p<0.001), pre-eclampsia (RR = 1.14, 95% CI 1.04 - 1.23; p<0.03), caesarean delivery (RR = 1.15, 95% CI 1.07 - 1.56; p<0.001) and Neonatal Intensive Care Unit (NICU) admissions (RR = 1.12, 95% CI

1.05 - 1.28; $p < 0.004$). Perinatal mortality (RR = 1.57, 95% CI 0.76 - 2.92; $p = 0.2$) was not significantly associated with GDM.

Conclusions: Gestational Diabetes should be controlled, in order to reduce both the maternal and neonatal complications, and accordingly reduce the burden on neonatal care.

Theme 7

Postpartum Care, Labour, Antenatal Care

THE ASSOCIATIONS OF ANTHROPOMETRIC MEASUREMENTS IN GESTATIONAL DIABETES MELLITUS; A CASE CONTROL STUDY

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Background: The predictive value of various anthropometric indicators for identifying benefits or risks for maternal health outcomes of pregnancy is discussed around the globe. Anthropometric measurements can be a cost effective, efficient method of screening for gestational diabetes mellitus (GDM) especially, in developing countries with low cost health care settings.

Objectives: To determine the associated anthropometric measurements in GDM in Sri Lankan population.

Methods and materials: This is a case control study conducted in a tertiary care hospital in Sri Lanka. Cases ($n=24$) were diagnosed GDM patients according to National Institute of Health and Care Excellence (NICE) criteria which included singleton pregnancies with Period of Amenorrhea (POA) of 30 weeks. Controls ($n=24$) were age, POA and Body Mass Index (BMI) matched singleton pregnancies without diagnosed medical disorders including GDM. Height, weight, mid upper arm circumference (MUAC), tricipital skin fold thickness (TSFT), bicipital skin fold thickness (BSFT), were measured according to the standards of National Health and Nutrition Examination Survey. Logistic regression was used to determine the associated anthropometric measurements with GDM.

Results: Multivariate analysis using logistic regression showed weight (Odds ratio=0.98, 95% CI=0.89-1.16), height (Odds ratio=0.95, 95% CI=0.79-1.13) and MUAC (Odds ratio=0.78, 95% CI=0.46-1.42) do not differ significantly, while TSFT (Odds ratio=1.21, 95% CI=1.05-1.42) and BSFT (Odds ratio=1.26, 95% CI=1.04-1.58) differ significantly among cases and controls. Therefore, TSFT and BSFT are independently associated with GDM in this population.

Conclusions and recommendations: High TSFT and BSFT are independently associated with GDM at 30 weeks of POA in Sri Lankan population. Above mentioned anthropometric measures can be used as a screening tool for GDM in antenatal clinics in Sri Lanka.

Keywords: Anthropometry, gestational diabetes, Sri Lanka

ANTENATAL FOLIC ACID, ARE WE GIVING ADEQUATELY; AN AUDIT

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Regular folic acid (FA) supplementation in about 40% of women did not achieve the protective level of red cell folate during pregnancy. It is not surprising that inter-subject variability of folate metabolism plays the key role. There are several situations where we need to provide high dose, 5mg of folic acid to get the maximum benefits, those include previous history or family history of affected baby with neural tube defect (NTD), type 1 or 2 diabetes, BMI >30kg/m², maternal mal-absorption disease or women on antiepileptic treatment (carbamazepine, valproate, barbiturate). Objective is to find out whether we have provided their need adequately.

Methods: Retrospectively collected the data from 244 pregnant women who have registered in our (ward 5 and 8) antenatal clinic at De Soysa hospital for women (DSHW), Colombo for two-month period using a data sheet Data was analyzed to get mean and percentage values.

Results: Mean age and parity respectively 28.6 years and two. Mean BMI was 26.7kg/m². Out of 244 women 30 (12.3%) were not taking preconception FA. From who are taking the FA, 18 (8.4%) women have been taking regular dose where high dose needed. In that group, 14 women had BMI >30kg/m² (6.5%) and 3 women had diabetes, one had epilepsy currently on treatment. Interestingly 11 women (5.1%) have been taking high dose where indications were diabetes, previous history of NTD and epilepsy. But not of women were belong to high BMI category.

Discussion and conclusion: National strategic plan on maternal and newborn health in Sri Lanka focusing on increase the proportion of preconception FA coverage up to 90% in 2025. According to audit results, most of health care professionals have started high dose of FA where it appropriate but high BMI category has missed. According to RCOG guideline on management of obesity women in pregnancy, Women with a raised BMI (BMI >30kg/m²) are at increased risk of NTD compared with healthy-weight women and recommend 5 mg of FA up to first trimester. As the incidence of obesity in reproductive age group women in Sri Lanka is increasing, a national policy is necessary to address whether we consider high BMI as an indication for high dose of FA.

COMPARISON OF VAGINAL PROSTAGLANDIN E₂ GEL AND TABLETS FOR THE INDUCTION OF LABOUR AT TERM: A RANDOMIZED CONTROLLED TRIAL

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Introduction and objectives: Labour induction is described as artificial beginning of the ripening of cervix and contraction of the uterus that result in effacement and dilatation of the cervix which leads to descendant of the fetal part. Currently, vaginal

Prostaglandin E₂ is one of the common method to Induction of labour in Sri Lankan obstetric practice. Sri Lankan guideline recommends the Prostaglandin E₂ for induction of labour as vaginal tablets or gel. There are limited reported studies available those bring better outcomes by the gel. Objectives of this study to evaluate the safety and efficacy of Prostaglandin E₂ gel against the tablets for Induction of labour at term uncomplicated pregnancy.

Methods: It was a randomised controlled study conducted at the ward 65 Teaching Hospital, Anuradhapura. Study sample consisted of 210 participants and according to block randomization each arm consisted of 105 participants. Pregnant women who had completed 37 weeks of gestation with cephalic presentation and who were suitable for inducing labour were included into the study. Data analysis was done by using SPSS version 23.0.

Results: A significantly less mean labour duration ($t=2.407$; $p=0.017$) was observed in the group which Prostaglandin gel was used. A significantly higher percentage of ($z>1.96$; $p<0.001$) assisted vaginal deliveries, EM/LSCS, Uterine hyperstimulation and SCBU admissions were reported with the group which used Prostaglandin tablets. Need of further augmentation of labour by oxytocin was significantly associated with Prostaglandin tablet insertion (OR=1.302; 95% CI= 1.036-1.637). Inability of achieve APGAR score 10 at first five minutes of life associates with Prostaglandin tablet usage (OR=1.072; 95% CI=.592-1.207). Majority of the participants has given birth with meconium contained liquor ($n=170:80.65$) and it does not show a significant difference between the two study groups (OR=1.075; 95% CI=0.543-2.127).

Conclusions: When applying Prostaglandin gel to induce labour, need of further hormonal induction is less. Also reported vaginal delivery complications were less and duration of labour is shortened. Therefore, applying Prostaglandin gel for term uncomplicated pregnancies is more beneficial than applying Prostaglandin tablets. By this method it is possible to reduce the amount of utilized resources to achieve a satisfactory labour outcome.

Key words: Prostaglandin, Induction, labour

A COMPARISON BETWEEN ULTRASONICALLY ASSESSED CERVICAL VOLUMES WITH MODIFIED BISHOP SCORE TO PREDICT THE FAVOURABILITY OF THE UTERINE CERVIX PRIOR TO INDUCTION OF LABOUR

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Introduction and objectives: Induction of labour (IOL) is one of the most frequently performed obstetric interventions. In current obstetric practice approximately 15-20% of women undergo induction of labour. Sri Lanka has the highest prevalence of IOL in the region (35%) according to WHO. Conventionally Bishop score system have been used to assess pre induction

cervical favourability for vaginal delivery. Several recent studies have proposed that transvaginal sonographic assessment of cervical length is more sensitive in prediction of obstetric outcome in induction of labour. The purpose of this study was to comparatively assess the predictive value of ultrasonically assessed cervical volume, in compared to Modified Bishop's score, prior to IOL. The primary objectives of the study were

To compare the cervical volume with Modified Bishop Score for assessing the favorability of cervix prior to induction of labour.

To evaluate the women's perception on degree of discomfort caused by a transvaginal ultrasound scan at term.

Methods: Study was carried out as a cross sectional study. Pre induction digital cervical assessment and transvaginal two dimensional sonographic cervical volume assessment was done in 120 consecutive women admitted for IOL at term, by two different clinicians who were unaware of each other's findings. IOL was done according to a standard protocol, uniformly in all women. All the obstetric outcomes including induction delivery interval were documented.

Results: Out of 125 study participants 83(66.4%) were nulliparous and 42 (33.6%) were multiparous. The mean gestational age at induction of labour was 40 weeks. Vaginal delivery succeeded in 97 (77.6%) women and 28 (22.4%) of women needed caesarean section. In vaginal delivery group, in 65 (52%) women, delivery occurred within first twenty-four hours of primary modality of induction. In 56% of nulliparous women vaginal delivery occurred in first 24 hours compared to 85% of multiparous women. The median induction to delivery interval in multiparous women was 9 hours and in nulliparous women it is 19 hours. Induction success and likelihood of vaginal delivery within first 24 hours, increased with Bishop Score and decreased with cervical volume in a linear correlation. There was a significant association between induction to delivery interval (IDI) with the Bishop score and the cervical volume. Out of 125 study participants, 110 (88%) experienced minimal or no pain during procedure. 15 (12%) experienced moderate discomfort and no study participant report severe pain or discomfort.

Conclusions: Transvaginal cervical volume assessment is comparable to Modified Bishop's core, in predicting the likelihood of vaginal delivery within 24 h following IOL

It doesn't cause significant discomfort to the pregnant women, when performed at term.

Theme 8 Post-reproductive Health

PREDICTION OF 10 YEAR OSTEOPOROTIC FRACTURE RISK AND PROJECTION OF THE HEALTH ECONOMIC BURDEN OF OSTEOPOROTIC FRACTURES IN SRI LANKAN FEMALES

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Introduction: Sri Lanka is a developing country with excellent health indices. However, changing population structure and

increase life expectancy will invariably bring forth new health economic issues and out of the umpteenth issues related to mid-life, osteoporosis and its consequences are one of the worst. The aim was to assess the 10-year risk of hip fractures and major osteoporotic fracture amongst females and to calculate the future health economic burden imposed by osteoporosis related hip fractures.

Method: A descriptive cross sectional multicentre study was conducted on a convenience sample of 788 apparently healthy females above the age of 40 years, at Sri Jayewardenepura General Hospital, District General Hospital, Ratnapura and Teaching Hospital, Jaffna, during the months of October and November 2017. Women who had existing functional disability were excluded from the study. Data collection was through a validated interviewer administered questionnaire based on the fracture risk assessment (FRAX) tool developed by Sheffield University, United Kingdom. The FRAX score was calculated using the online Sri Lankan FRAX tool to assess the 10-year hip fracture risk and major osteoporotic fracture risk. Data collected was analyzed using SPSS software version 21. The fixed intervention thresholds applied were 11% for major osteoporotic fracture and 3.5% for hip fractures based on Sri Lankan FRAX model. The cost of managing a single hip fracture was considered as 2777.77 US dollars according to current hip replacement charges.

Results: In our study the mean age of the participants was 53.4 yrs. (+/-8.8 SD).

Risk of a hip fracture requiring intervention, was 5.7% (45 participants) in the study population. The risk of a major osteoporotic fracture requiring intervention was 4.7% (37 participants). Based on the current cost for the management of a hip fracture, extrapolation of the study findings to 4,418,000 women which is the population of women over 40 years at the time of the study, predicted 251,826 hip fractures to occur within the next 10 years. Thus, a bare minimum cost of 699.5 million US dollars would be required as surgical expenditure alone, notwithstanding the staggering personal, family and social burden which will be difficult to objectively calculate, as well as a multitude of other fractures and complications associated with osteoporosis.

Conclusion: Due to the changing paradigms in population dynamics in Sri Lanka, osteoporosis poses a major health economic challenge. Health policy makers will have to plan and implement sound preventive and management strategies which would minimize osteoporosis as well as would circumvent this avertable expenditure.

Theme 9 Benign Gynaecology

SAFETY AND EFFECTIVENESS OF VACUUM ASPIRATION OF PATIENTS WITH FIRST TRIMESTER MISCARRIAGE COMPARED TO CONVENTIONAL CURETTAGE IN LIMITED RESOURCE SETTING IN SRI LANKA: A RANDOMIZED CONTROLLED TRIAL

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Introduction and objectives: First trimester miscarriage is the second most common cause of admission for most of the hospitals in the developing world. It should be managed in an appropriate manner with the aim of improving the safety and effectiveness. The clinical management of miscarriages has changed little over the years and significant proportions of women undergo surgical evacuation. But blind surgical evacuation of the uterus for the management of first trimester miscarriage using either suction evacuation or conventional curettage is a challenge as surgeon has to decide the completeness of the procedure and it depends on subjective perception. However, vacuum aspiration should assist in reducing health care costs without an adverse effect in the quality of care provided to the patient. Despite being simple, inexpensive and easy to handle, its use has been restricted because of unfamiliarity.

Objectives of this study to compare the safety and effectiveness of vacuum aspiration of patients with first trimester miscarriages compared to conventional curettage in a limited resource setting in Sri Lanka.

Methods: A Randomized control trial was conducted among 136 patients presented to gynaecology ward with a first trimester miscarriage after the ethical approval and registration in the clinical trial registry. Previously prepared sequentially numbered opaque sealed envelopes technique was applied for randomization. Data was analysed by using SPSS 23.0. Vacuum aspiration was done under paracervical block and conventional curettage was done under general anaesthesia. Primary Outcome measure was duration of hospital stay and secondary outcomes were post-operative pain, duration of procedure, need of repeated evacuation.

Results: Total study sample consisted of 136 participants. Age of the participants ranged from 18 years to 43 years (Mean 28.8:SD59). When patients who underwent conventional curettage were compared with patients managed with vacuum aspiration, there was a significant reduction of duration of hospital stay (t=5.03) and the mean time duration (t=12.305), mean volume of blood loss (t=3.91) among the patients who underwent vacuum aspiration. There was significantly higher pain score (t=11.95) was reported among the patients who underwent vacuum aspiration.

Conclusions: Vacuum aspiration techniques can be successfully used as a safe and effective method for first trimester miscarriages with the better outcome to the patients. Relatively less amount of resources is utilized during this method. Therefore, it is appropriate to add the vacuum aspiration technique with most suitable pain management strategies in the routine practice of management of first trimester miscarriage in every gynaecology unit.

IMPLEMENTATION OF FIGO MISOPROSTOL ONLY REGIME FOR MEDICAL MANAGEMENT OF MISSED MISCARRIAGE – AN AUDIT CARRIED OUT AT PROFESSORIAL GYNECOLOGY UNIT, TEACHING HOSPITAL PERADENIYA

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Introduction: Medical management of missed miscarriage is a safe method with a success rate of 72-93%. Since its introduction, different drugs and different regimes of drugs were introduced to increase its attainment. Prior to the introduction of FIGO misoprostol only regime, women were given a vaginal dose of 800 µg of misoprostol once and failing that a repeat dose was offered on the following day. The failures with two doses were managed with surgical evacuation. In keeping with FIGO guidelines, in 2017 its regime was introduced to Gynaecology unit, Teaching Hospital Peradeniya.

Objectives: To determine whether the introduction of FIGO misoprostol only regime has led to an increase in the success rate of medical management of missed miscarriages.

Methods: An audit was performed by retrospective data collection from the bed head tickets of those who underwent medical management for missed miscarriage by the two regimes. Those who underwent the previous regime for missed miscarriage, patients were given a vaginal dose of 800 µg of misoprostol once and failing that a repeat dose was offered on the following day. Those who received the new regime, which was recommended by the FIGO, patients were given 800µg of misoprostol (per vaginally) two doses 3 hours apart. The success rates of medical management of missed miscarriages and the eventual need of surgical intervention was compared. The data were expressed as percentages after being analysed by descriptive statistics.

Results: A total of 106 subjects were studied with each group consisting 53 patients. The average age of these women were 32 and majority was nulliparous (43%). Those who received medical management according to the initial ward protocol had a success rate of 87% and the rest eventually proceeded to surgical management. With the invention of the FIGO regime the success rate was 94% with a reduction of surgical need from 13% to 6%.

Conclusion: By adhering to the FIGO misoprostol only regime the success rates of the medical management of missed miscarriages had improved, therefore it is preferable to adhere to it rather than the conventional protocols.

A CASE OF PULMONARY ENDOMETRIOSIS TREATED BY BRONCHIAL ANGIOGRAPHIC EMBOLIZATION

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Introduction: Although usually confined to the pelvis, endometriosis can be found in extra-pelvic organs and tissues as well. One of the rare forms of extra-pelvic endometriosis is thoracic endometriosis (TE). It is characterized by presence of functional endometrial tissues within the pleura, in the lung parenchyma or the airway. We present a case of TE managed with bronchial angiographic embolization (BAE).

Case report: A 32-year-old woman with two children presented with repetitive catamenial haemoptysis for 8 months' duration.

Haemoptysis usually started on the first day or the second day of each menstruation and it continued for 5 to 6 days and it was identical with the menstrual interval. She had one vaginal delivery and one caesarean section 10 years ago and 6 years ago respectively. Two years ago, she had diagnostic laparoscopy for chronic pelvic pain and which revealed pelvic endometriosis. Her medical history was otherwise unremarkable. Physical examination of the respiratory system was normal. Chest X-ray had symmetrical thorax and plain lung markings without abnormal findings. A chest computed tomography taken during the menstruation revealed a focal consolidation with adjacent ground glass opacification in the basal segment of the right lower lobe. Since, haemoptysis spontaneously resolved with the menstruation we assumed this catamenial haemoptysis due to pulmonary endometriosis and planned for BAE. During the procedure ultrasound guided diagnostic descending aortogram was performed using a catheter placing in the proximal descending thoracic aorta. Angiogram revealed a hyperaemic area in the lower lobe of the right lung, supplied by the hypertrophied lower lobe branch of right intercosto-bronchial artery. Super selective cauterization and embolization of the feeding right bronchial artery was done with PVA particles. Post embolization angiogram revealed satisfactory occlusion of the arterial supply to the hyperaemic area. Post procedure course was uneventful and there were no recurrences of catamenial haemoptysis following the procedure.

Conclusion: There is no guidance for the treatment of TE. Hormonal therapy can be considered to suppress the endometrial tissues. Considering the surgical options to treat TE, video assisted thoracic surgery was reported and which was found to be safer and less invasive than lobectomy. In general BAE is an alternative to surgery in the management haemoptysis caused by Tuberculosis and chest trauma. Even though, BAE has not been frequently used to treat TE we reported case of TE successfully treated with BAE. This suggests that BAE is an alternative treatment option for symptomatic TE.

OPERATIVE LAPAROSCOPY IN RECONSTRUCTIVE GYNAECOLOGY: A CASE REPORT

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Improvements in operative technique and technology have elevated laparoscopy from simple diagnostic procedures to difficult surgeries. We report a case of laparoscopic re-correction of vaginoplasty.

A14-year-old girl presented with cyclical abdominal pain and was diagnosed to be having an absent vagina with a functioning uterus. Magnetic Resonance Imaging of the pelvis showed a bulky uterus with a haematometron and absence of normal configuration of the vagina. Under general anaesthesia the introitus was incised and dissected upwards. Uterus, cervix, and blindly ending upper vagina were noted. Due to the inadequacy of the available vaginal length, a bowel graft taken from the sigmoid colon was used to connect the uterine cervix to the introitus. This was done as an open procedure. Pelvic endometriosis and left sided hydrosalpinx was noted.

She presented again with severe abdominal pain and spiking fever after six weeks and was found to be having an infected haematometron in a previously undiagnosed rudimentary horn. Laparoscopic excision of the rudimentary horn, and uterine repair was done. After 3 months of menstrual suppression, she was reviewed and recurrence of the haematometron was observed. Stenosis of the anastomotic site was diagnosed.

Four port laparoscopy was performed and the posterior uterine surface and the vaginal conduit created previously was found to be covered with bowel adhesions. The upper end of the vaginal conduit was identified with the help of a gauge 12 Hegar dilator in the vagina. Bowel adhesions were dissected from the uterus and the vaginal conduit. Bowel graft which was attached to the cervix was opened at its proximal end. Transverse incision was made over the lower posterior surface of the uterus and the haematometron drained. Double J stent was inserted to the uterus proximally and distal end to the vaginal conduit. Vaginal conduit was anastomosed to the opening made over the uterus using 3/0 polyglactin. Total surgery duration was two and a half hours.

Patient had uneventful post-operative recovery and was discharged on day 3. She had her normal periods from the next cycle. The double J stent was removed after one year and the patient is having normal menstruation.

In a setting of adhesions and endometriosis laparoscopy could be a better option due to its magnified view and better vision. However, the operative efficacy is highly dependent on the surgeons' experience. This patient had two occasions that would have justified hysterectomy. Both these were managed effectively by laparoscopy.

AUDIT ON TOTAL LAPAROSCOPIC HYSTERECTOMY AT PROVINCIAL GENERAL HOSPITAL, RATHNAPURA

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Introduction and Objectives: In 1988, Harry Reich performed and published the first total laparoscopic hysterectomy in Pennsylvania. Since the first case was published, an increasing number of authors have reported their techniques. The general advantages in avoiding a laparotomy are now well established. This audit was conducted in order to gain better understanding of laparoscopic hysterectomy with special regards to operative and postoperative complications with an aim to improve care at Provincial General Hospital, Ratnapura (PGHR).

To ascertain the standards of laparoscopic hysterectomy at PGHR and to improve the quality of patient care and outcome.

Methodology: This clinical audit was conducted at PGHR, Sri Lanka, from September 2015 to October 2017. Data from all patients undergoing laparoscopic hysterectomy were recorded in to specially designed audit forms following their discharge and were analyzed.

Results: Total of 104 audit forms were filled, including 82 (78.8%) total laparoscopic hysterectomies, 15 (14.4%) laparoscopic assisted vaginal hysterectomies and 7 (6.7%) which

required conversion into laparotomy. Majority (70.5%) of patients who underwent laparoscopic hysterectomy were aged between 40 and 52 years. Heavy menstrual bleeding not responding to medical management (n=46, 44.2%) was the most common indication for laparoscopic hysterectomy and endometrial hyperplasia 38 (36.5%) was the second commonest indication. Concurrent oophorectomy was performed in 55.8% of cases (n=58) and increment in percentage was seen with the increase of the age. The mean $\pm$ SD of operative time for all the cases were 106.39 $\pm$ 35.23 minutes and mean $\pm$ SD of operative time for total laparoscopic hysterectomy was 104.39 $\pm$ 31.71 minutes. The overall complication rate was 26.9% (n=28) and post-operative fever was (n=21, 20.2%), being the most common postoperative complication. None of the patients developed wound infections, unintended reoperations and bladder, ureter or bowel injuries. The mean $\pm$ SD of number of the days of total hospital stay was 3.52 $\pm$ 0.975 days which included a day for pre-operative optimization.

Conclusions: Laparoscopic hysterectomy is a safe and effective method of hysterectomy with some of our parameters being similar to those reported in literature. Along with further experience we are expecting to achieve international standards of laparoscopic hysterectomy at PGHR further improving our standards of patient care.

Theme 10 SDG's and Women's Health

No abstracts available

Theme 11 Risk Management and Clinical Governance

AUDIT ON CARDIOTOCOGRAPHY REPORTING AND INTERPRETATION OF WARD 09, SRI JAYEWARDENEPURA HOSPITAL

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Introduction: Electronic fetal monitoring is performed using a cardiotocography, which is a paper record of the fetal heart rate (FHR) patterns plotted simultaneously in relation to uterine activity, with the objective of identifying hypoxia. Cardiotocography (CTG) is sensitive but less specific investigation. Reporting and interpretation of a CTG accurately and timely, is imperative not only as it is used widely, but also as it may be of medico legal importance in the event of adverse pregnancy outcome.

Objectives: To assess the documentation in admission CTG in ward 9, Sri Jayewardanepura General Hospital.

Methodology: A retrospective audit was conducted by analyzing the records from March to August 2017. Randomly selected bed head tickets of 51 patients were selected from ward admissions. Admission CTG reporting and interpretation was assessed. Recording of patient name, date, time, base line heart rate,

variability, accelerations, decelerations, contractions, signature of the reporter and overall comment was assessed. Sri Lanka College of Obstetricians and Gynaecologists (SLCOG) guidelines on cardiotocography recording and interpretation were used as standard for comparison.

Results: All the CTGs have been interpreted by the house officer of the ward (100%).

Among the components of interpreting the CTG accelerations, variability and basal heart rate were interpreted in all patients (n=51, 100%). The maternal heart rate, contractions frequency, strength and the name of the patient was not recorded in any of the CTG strips (0%). The overall interpretation of the CTG has been marked in 94.1% (n=48) of the cases and not marked in 5.9% (n=3). While decelerations were not marked in 2% (n=1) of the total cases, the date of interpretation was not marked in 13.7% (n=7) and the time was not marked in 37.3% (n=19) of the cases. Interpretation was accurate in all CTGs selected for the study.

Conclusion: Detecting fetal hypoxemia using CTG needs methodical assessment of the records in each patient. There least documented parameters were contractions and maternal heart rate. Name and BHT number was not recorded in CTGs which may lead to errors in judgment. Date and time of CTG interpretation was poorly marked. However overall interpretation was satisfactory. These deficiencies need to be addressed by training on importance of accurate documentation. Re-auditing needs to be done in 6 months.

CLINICAL AUDIT ON PARTOGRAM DOCUMENTATION IN WARD 09, SRI JAYEWARDENEPURA GENERAL HOSPITAL

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Introduction: The national partogram is a graphical representation of key maternal and fetal data during labour, intended to provide a record on the progression of labour with the aim of highlighting any delay or deviation from normal labour. It not only constitutes a legal document, but is also an avenue for identifying accountability in midwifery practice. The aim of this audit was to check the level of adherence to documentation as per the national guidelines on partogram maintenance.

Objective: To assess the documentation in the partogram of ward 9, Sri Jayewardenepura General Hospital.

Methodology: Partogram records of the parturient from ward 9, Sri Jayewardenepura Hospital over a 4-month period of July to November 2017 were reviewed retrospectively. The documentation of the partogram was compared to the national guideline which was considered as the standard.

Results: Partographic monitoring was carried out in 79 patients. Demographic data such as name, BHT, parity and blood group were documented in all mothers (100%). Age, gravidity, date and time and time of vaginal examination were documented in 78 mothers (98.7%). With regards to fetal well-being assessment fetal heart rate in 1st stage was marked in 74 (93.7%) partogram but 2nd stage fetal heart rate monitoring was not recorded in any

of the partogram. CTG features and Liquor color were documented in 74 (93.7%) and 57 (72.2%) partogram respectively. Maternal parameters such as blood pressure, pulse rate, temperature were marked in 73 (92.4%), 76 (96.2%) and 20 (25.3%) partogram.

Contractions were marked in only 74 (93.7%) partogram while abdominal descent was marked in 6 (7.6%) partogram. Cervical dilatation was documented in all partogram. Recording of abdominal descent 6 (7.6%), vaginal descent 59 (74.7%), alert line 53 (67.1%), action line 52 (65.8%) and Oxytocin dose 62 (78.5%). Full dilatation and commencement of pushing were marked in only 20 (25.3%) partogram. Postpartum monitoring of respiratory rate, pulse rate, systolic blood pressure, and diastolic blood pressure were marked in 77 (97.5%) partogram.

Conclusion: Demographic data such as name, BHT, parity and blood group were the most documented parameters followed by age, gravidity, date and time of vaginal examination. Despite fetus being more vulnerable to hypoxia in the 2nd stage, fetal heart rate monitoring was not recorded in most of the partogram. Documentation of abdominal descent, temperature, time of full dilatation and commencement of pushing was poor. The health staffs need to be trained and oriented regarding these deficit areas. A re-audit to assess the improvement is recommended.

AUDIT ON AWARENESS AND COUNSELING ON POSTPARTUM FAMILY PLANNING

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Introduction and objectives: Post-partum family (PPFP) planning has an important role in reducing of maternal and child mortality via reduction in unmet need for Family planning. The objective of this audit was to find out the awareness on PPFP among postpartum women and the adequacy of PPFP counselling.

Methods: Retrospective analysis on awareness and counselling on postpartum contraception of postpartum women in postnatal ward 11, De Soysa Hospital for women was conducted during March and April 2018 via an interviewer based questionnaire. Gold standard is 100% opportunity for PPFP counselling and accessibility.

Results: Total of 146 postpartum women were interviewed. 102 (69.8%) women have accepted some method of PPFP with 18 (17.6%) sterilization, 22 (21.5%) postpartum IUD, 42 (41.2%) Implants. Only 36 (24.7%) were aware on the time of return of fertility following delivery. Awareness on benefits of PPFP; reduction in maternal mortality, reduction in child mortality and prevention of low birth weight babies was 46.6%, 46.6%, 58.9% respectively. Awareness of effectiveness of sterilization, postpartum IUD, Implants, Depo Provera were 64.3%, 63%, 45.2%, 38.3% respectively. Awareness on period of cover of postpartum IUD, Implants, Depo Provera were 43.8%, 61.6%, 56.2% respectively. Awareness on interference with lactation with postpartum IUD, Implants, Depo Provera, and combined oral contraceptive pill (COC) were 71.2%, 61.6%, 46.6%, 53.4% respectively.

All (100%) had the PPFP counselling during their first antenatal visit, but only 65.7% had clarified their issues on PPFP. PPFP counseling was not offered during the subsequent clinic visits. 22.4% and 30.4% had PPFP during their first and second antenatal ward admission respectively but only 16.8% and 7.7% had the opportunity to clarify their issues on PPFP. 104 (83.9%) had offered the opportunity for PPFP counseling during the postnatal period but only 78 (62.9%) had offered the opportunity to clarify their issues on PPFP

Conclusion: Although the PPFP acceptance was high in the study population their awareness on the methods of PPFP and the benefits of PPFP is poor despite higher number of PPFP counseling sessions. So, the quality of PPFP counseling should be improved as well as it should accompany by the opportunity to clarify their issues on PPFP. Antenatal clinic visits as well as antenatal ward admissions should be used more effectively in order to provide opportunities for PPFP counseling. More audits should be carried out on this aspect in order to improve the quality of PPFP service.

VALIDITY OF FINGER STICK BEDSIDE GLUCOSE MEASUREMENT DEVICES IN COMPARISON WITH LABORATORY VENOUS PLASMA GLUCOSE MEASUREMENTS IN PREGNANT WOMEN WITH DIABETES

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Introduction and objectives: Diabetes during pregnancy confers greater risk for maternal and fetal complications. Self-monitoring of fasting, pre and postprandial blood glucose (SMBG) have been useful in preventing hypoglycaemia, adjusting Pre-prandial insulin dosage, adjusting medical nutritional therapy and physical activities. The validity and accuracy of different over the counter glucometer types vary significantly and, at present none of the local authorities carry out pre or post market evaluation of these devices. Since many variables can affect the accuracy of SMBG devices on pregnant women, this study intended to evaluate the accuracy and validity of 3 types of SMBG devices available over the counter, (model 1 = CC, model 2= OT and model 3 = FS) which were compared with a standard laboratory reference method.

Methods: A random 103 capillary and venous blood samples were drawn and analyzed from diabetic pregnant patients admitted to Teaching Hospital Peradeniya for Blood Sugar Series Testing. Haematocrit value was also obtained by microhematocrit method. Correlation co-efficiencies and Bland Altman plots were used to detect the analytical accuracy whereas surveillance error grid was used to analyse the clinical accuracy. The data were analyzed using statistical software for social sciences version 20.0.

Results: The mean age of participants was 31 ± 5 yrs. The standard deviations of the CC, OT and FS glucometers were 2.6, 4.7 and 13.2 respectively whereas correlation coefficients were 0.856, 0.880 and 0.873. The mean bias values were 3.94, 12.54 and 15.8. All glucometers met the ISO criteria for glucose values > 100 mg/dl whereas none of them met the criteria for values < 100 mg/dl hence does not completely meet the standards. Meeting American Diabetes Association criteria for accuracy of SMBG devices was not practical. Mild anaemia during pregnancy was not associated with glucometer errors. In surveillance error grid 87.8%, 87.8% 82.3% of the data points were within non risk zone for CC, OT and FS whereas 12.2%, 12.2% and 17.7% were within slightly lower risk hypoglycaemia area (both non risk and slightly risk areas are considered acceptable for glucometer errors). Both analytical and clinical accuracy data showed that glucometer devices were not reliable in detecting hypoglycaemia.

Conclusions: It can be concluded that, the over the counter SMBG monitoring systems are encountering problems in terms of accuracy and validity. Clinicians should exercise caution in making clinical decisions based on glucometer derived values when handling diabetes patients in pregnancy.

AUDIT ON THE USE OF SBAR TOOL FOR IMPROVING COMMUNICATION AND PATIENT HANDOVER

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Introduction and objective: Failures of communication are among the most common cause for adverse events in healthcare. Patient handover between shifts and teams is therefore a necessary and vital part of practice in order to reduce the risk of medical errors. It is important to optimize communication of critical information as an essential component of risk management and patient safety. Situation, Background, Assessment, Recommendation (SBAR) is a structured communication tool that helps organize information in to a logical, clear handover (Good practice No 12).

The objective of this audit was to assess the use of SBAR during handovers and communication between junior doctors, nurses and midwives during on-call shifts.

Methods: 3 intern house officers, 15 nursing officers and 3 midwives were assessed regarding handovers and communication between themselves and other medical staff during on-call shifts at the Health Ministry unit of obstetrics and gynaecology in Teaching Hospital Peradeniya, during the month of June 2018. Data was collected via an interview and evaluating their handover notes to assess awareness of SBAR and the quality of communication. Each component of SBAR tool was given a score out of 2. Following the assessment, the staff was educated regarding SBAR and its use in improving the efficacy of patient care.

Results: The overall score for the use of SBAR among staff accounted for 52.8%, including 70.8% for doctors, 47.1% for nursing officers and 45.8% for midwives. On analyzing the scores for the four components of SBAR, the staff had got 61.3% for

'Situation', 50% for 'Background', 56.3% for 'Assessment' and 43.8% for 'Recommendation'. Although only 10% of the staff was aware of the standard SBAR tool, following the education session all of them consented for the effective use of SBAR during communication and patient handover.

Conclusions: Among the medical staff only a minority were aware of the standard SBAR tool. The overall quality of communication and patient handover was not satisfactory especially among the nursing officers and the midwives.

The importance and relevance of capturing information need to be reinforced. Recommend re-audit to assess the use of standardized SBAR as it will minimize the number of incidents related to communication failure and improve long term patient outcomes.

OBSTACLES IN ACHIEVING THE RECOMMENDED STANDARDS IN DECISION TO DELIVERY INTERVAL IN EMERGENCY CAESAREAN SECTION – AN AUDIT CONDUCTED AT PROFESSORIAL GYNECOLOGY UNIT, TEACHING HOSPITAL PERADENIYA

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Introduction: There are recommended guidance on decision to delivery interval (DDI) in emergency caesarean section. According to National Institute for Health and Care Excellence (NICE) clinical guidelines on Caesarean section, the American College of Obstetrics and Gynecology (ACOG) and American Academy of Pediatrics (AAP) recommendation, the emergency caesarean section (category 1) should be performed in a time phase of 30 min from the decision to conduct it and category 2 within 75 minutes. Therefore Decision to Delivery interval (DDI) is the time interval from decision made to perform an emergency caesarean section till the delivery of the baby. However it may not be feasible to comply with these recommendations in all the instances due to various reasons. As per the urgency classification proposed by Lucas et al the emergency lower segment caesarean section (LSCS) is classified to 1-4 categories.

Objectives: To determine the reasons for delay in decision to delivery interval (DDI) in category 1 and category 2 emergency lower segment caesarean section and identify obstacles in achieving the recommended DDI.

Methods: Data was collected in a retrospective manner from the bed head tickets and with the aid of a questioner filled by medical officers, from those who underwent emergency LSCS by senior house officers and registrars at TH Peradeniya during October-November 2017. Descriptive statistics were used to analyse the data and they were interpreted as percentages.

Results: A total of 113 subjects who underwent emergency caesarean section over a period of two-months were included in to the audit. (Category-1 LSCS: 54 and category-2 LSCS: 59) The total number of deliveries during the same period was 796. Age range of the women was 18 to 38 years and the majority of them were primiparous (57.1%). In this study group only 11.9% had previous caesarean section. 10.9% of the total had diabetes

while 7.1% had hypertension and 4.8% had bronchial asthma. The mean DDI for category 1 LSCS was 46 minutes (Range: 35-60 minutes) while for category 2 it was 63 minutes (range 39-90 minutes). The major delay occurred at the patient preparation and arrival to the theatre (47%), then the lack of supportive staff have contributed for 21%, while unavailability of blood reports (FBC, DT) (15%), lack of theatre space due to on-going surgery (18%), multiple attempts at spinal anaesthesia (5%), failed spinal anaesthesia and conversion to general anaesthesia (1%), delays due to the adhesions because of previous surgeries (6%) have contributed to the rest.

Conclusion: In category 2 LSCS the DDI was within the recommended 75 minutes. However, various modifiable factors have contributed for the inability to achieve the desired average DDI of 30 minutes for the category 1 LSCS. By improving these factors it may be possible to achieve the recommended DDI of 30-minutes for the category 1 LSCS.

INTERPRETATION OF DOCUMENTATION OF CARDIOTOCOGRAPH – STILL NOT OPTIMAL?

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Introduction and objectives: Cardiotocograph (CTG) is an easy to carry out, bed-side, non-invasive investigation used to assess fetal heartbeat patterns which are plotted simultaneously with relation to uterine activity, with the intention of identifying fetal distress. Appropriate interpretation, reporting, documentation and action is absolutely essential.

The objective was to assess the level of documentation in CTG monitoring of patients in Ward 9, Sri Jayewardanepura General Hospital

Methods: 60 bed head tickets were selected randomly during a 3-month period from April to June 2018. They were retrospectively assessed for the patient name, date, time, baseline heart rate, variability, accelerations, decelerations, name/designation/ and signature of the assessing doctor, conclusion and action taken. The Sri Lanka College of Obstetricians and Gynaecologists (SLCOG) guideline on CTG documentation was used as a standard.

Results: There was poor documentation of the patient's name and bed head ticket (BHT) number on the CTG itself, with none of the selected patients having it recorded. The date and time of the CTG interpretation was documented in 54/60 (90%) and 50/60 (83.3%) respectively. In 50/60 (83.3%) of the patients, the attending doctor documented their name and designation. When assessing the CTG, 56/60 (93.3%) had correct interpretation and documentation of acceleration, deceleration, baseline and variability. An appropriate conclusion of the CTG was reached and documented in 54/60 (90%) of the selected records and out of these 91% of the time an appropriate action was taken and documented in the BHT.

Conclusions: Complete omission of the name and BHT on the CTG is extremely concerning as this is a basic risk management step. This oversight is extremely important as CTG strips may be mixed up prior to being pasted on the BHT, which could lead to major mismanagement issues leading to catastrophic results. Interpretation and documentation of CTGs were satisfactory.

AUDIT ON PARTOGRAM DOCUMENTATION IN WARD 9 SRI JAYEWARDENEPURA GENERAL HOSPITAL

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Introduction and objectives: A Partogram is a graphical representation of the events of labour. It is helpful in early identification of abnormal labour and fetal distress. It has been shown that appropriate use and completion of this document could lead to reduction in labour related complications. The national Partogram is a universal tool used across Sri Lanka. However, it is not always used appropriately.

The objective was to assess the level of documentation in the Partograms used in patients from ward 9, Sri Jayewardenepura General Hospital (SJGH) and compliance of given standards.

Methodology: 50 partogram records over a 4-month period from January to May 2018 of patients from ward 9, SJGH were used for this study. The results were compared with the as an auditable standard. Complete documentation of each segment of the partogram till the delivery as per national partogram guidelines was considered as the auditable standard.

Results: Date and time, name, BHT number, parity and blood group were documented in 100% of the cases. Liquor colour was documented in 39/50 (78%) of the cases. Fetal heart rate was completely recorded up until delivery in 45/50 (90%) in the first stage. However, in the second stage only 4/50 (8%) partograms were completely documented with regards to fetal heart rate. CTG analysis was correctly documented in only 3/50 (6%) of the cases. This does not correctly show the number of patients whose CTG was assessed.

Blood pressure and temperature was measured only in 33/50 (66%) and 5/50 (10%) of the cases respectively. Maternal pulse was measured in 47/50 (94%) of patients but out of them only 2/50 (4%) had continuous, uninterrupted documentation. Maternal contractions were measured in 42/50 (84%), abdominal decent in 36/50 (72%) and vaginal decent in 35/50 (70%). Cervical dilatation, alert and action lines were documented fully only in 34/50 (68%) while full dilatation in 9/50 (18%), commencement of pushing 23/50 (46%), and oxytocin use were documented only in 27/50 (54%). Most of the poor documentation was found during the duty shift of 7 pm to 7 am. Example: FHR was not fully documented in any of the 21 patients who delivered during this period.

Conclusion: Fetal monitoring in the second stage was extremely poor at 8% and is worrying given the increased risk of fetal hypoxia. Abdominal decent, vaginal decent, cervical dilatation, alert and action line documentation were also poor. All health staff involved in management need to have proper training into these deficient areas. A re-audit to assess improvements made is required.

Theme 12 Reproductive Medicine

PATTERN OF SEMINAL FLUID ANALYSIS IN A POPULATION OF SUB FERTILE MEN – A SRI LANKAN STUDY

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Introduction: Semen analysis is the first step to identify male factor infertility. The aims are to evaluate the pattern of semen analysis of male partners of infertile couples and identify the current status of the contribution of male factor towards the infertility.

Method: A retrospective observational study was conducted by the Department of Obstetrics & Gynaecology, Faculty of Medical Sciences, University of Sri Jayewardenepura to evaluate seminal fluid analysis findings in a group of men attending a sub fertility clinic at Colombo South Teaching Hospital from June 2017 to July 2018. In all the patients socio demographic characteristics and seminal fluid analyses findings were recorded. Seminal fluid analysis findings were reviewed with attention to volume, concentration, motility and morphology and compared with WHO standard lower reference values.

Results: Study population consisted of 54 study subjects between 21 to 50 years. Mean age was 35.29 ± 5.99 years. Of the study population, 75.92% (n=41) had normal volume ejaculate and 24.07% (n=13) had low volume ejaculate. Minimum volume was 0.8ml and maximum was 3.5ml with a mean of 1.87 ± 0.70 ml.

Of the study population, only 74.08% (n=40) had normal parameters. Mean total sperm concentration was $65.81 \pm 39.96 \times 10^6$ spermatozoa per ml, mean progressive motility was 49.27 ± 17.3 % and mean value of normal forms was 12.9 ± 8.10 %. A single factor abnormality was seen only 1.85% (n=1) of the population which is asthenozoospermia. Both oligozoospermia and asthenozoospermia was seen in 25.92% (n=14) in the sample. Azoospermia was seen in 18.51% (n=10). Combined factor abnormalities as oligoasthenozoospermia was seen in 24.07% (n=13) and oligoasthenoteratozoospermia was seen in 22.23% (n=12) of subjects

In conclusion, seminal fluid analysis plays an important role in the assessment of male subfertility. This study shows a high rate and variety of seminal fluid abnormalities in sub fertile patients. Male factor is increasingly assuming a significant role in the aetiology of infertility in our environment in the recent times and has become a source of concern to the affected couples with its attendant social and psychological effects and with the potential of threatening relationships.

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Theme 1

Maternal morbidity and mortality

A CASE REPORT OF BOUTONNEUSE FEVER IN A PREGNANT MOTHER

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Introduction: *Rickettsia conorii* is a gram negative, obligate intracellular bacteria in the spotted fever group. It causes human disease called Mediterranean spotted fever/Indian tick typhus (there are other names that designate the locality of occurrence). The vector is dog tick. This can be associated with adverse outcomes like low birth weight, prematurity, still birth, maternal morbidity and mortality

Case presentation: A 32 years old primi gravidae was presented with fever for 4 days and generalized body rash which appeared on third day of fever at the period of gestation of 34 weeks. Her liver function tests-aspartate alanine transferase (ALT) and aspartate amino transferase levels are elevated and indirect fluorescent antibody test (IgG IFAT) was positive for rickettsia conorii. She also had hypokalaemia. She was started with azithromycin and ceftriaxone. Fetal well-being was assessed with cardiotocography and ultrasound scans regularly. Hypokalaemia and liver function tests were improved during the course of antibiotics. Azithromycin was given for 7 days and ceftriaxone for 10 days. She was discharged from the ward, 12 days after the admission.

Discussion: Rickettsial infections in pregnancy are not common in Sri Lanka. Sometimes it may be confused with the other dermatoses in the pregnancy like papular eruptions in pregnancy, prurigo in pregnancy. Early identification and prompt treatment for rickettsial infection will reduce maternal morbidity and mortality.

A CASE REPORT OF UTERINE NECROSIS FOLLOWING THE LIGATION OF BI-LATERAL INTERNAL ILIAC ARTERIES FOR THE MANAGEMENT OF POSTPARTUM HAEMORRHAGE

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Introduction: Post-partum haemorrhage is one of the leading causes of maternal mortality and morbidity. Stepwise uterine devascularization including bi-lateral internal iliac arteries ligation is one of the surgical treatment for postpartum haemorrhage. Even though several anastomotic vessels other than the internal iliac arteries supply the uterus, it can be associated with some adverse effects like uterine necrosis.

Case description: A 18 years old primi mother underwent forcep delivery due to prolong fetal bradycardia during 2nd stage of the labour. Following the delivery, a massive post-partum hemorrhage occurred, and it was treated as primary PPH due to uterine atony. Emergency laparotomy was performed following the failure of medical management and balloon tamponade. Several compression sutures were applied, and bi-lateral internal iliac and uterine arteries were ligated. After the transfusion of four pints of blood patient was transferred to the ward.

Patient developed abdominal distention and fever from post-operative day two onwards. As her condition was not settled with antibiotics re-opening laparotomy was performed on post-op day 7. During the surgery it was noted that compressed part of the uterus was necrosed. Total abdominal hysterectomy was performed, and patient was discharged on post-op day 5.

Conclusion: Eventhough stepwise devascularization is a widely accepted surgical procedure for the management of postpartum haemorrhage, it can be result in catastrophic adverse effects like pelvic organ necrosis.

A CASE REPORT ON PREGNANCY COMPLICATED CATASTROPHIC ANTIPHOSPHOLIPID ANTIBODY SYNDROME WITH MULTIPLE THROMBOTIC EVENTS

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Introduction: Antiphospholipid antibody syndrome (APLS) is a form of acquired auto-immune disorder, manifests clinically as recurrent venous and/or arterial thrombosis with or without the history of fetal loss. Characteristic laboratory abnormalities in APLS include continually elevated levels of antibodies which is directed against membrane anionic phospholipids or their associated plasma proteins, predominantly beta-2 glycoprotein. Evidence of involvement of three or more organs, systems or tissues, Development of manifestations simultaneously or in less than a week, evidence of small-vessel occlusion, Laboratory confirmation of the presence of antiphospholipid antibodies are the criteria for the diagnosis of catastrophic antiphospholipid syndrome. This is a severe form of this disorder.

Case: 27 years old, P4C0, known patient of APLS admitted with severe lower abdominal pain to emergency department at 7+5 weeks of gestation. At her 22 years of age she had one episode of unprovoked Deep vein thrombosis (DVT). After year's later, complete loss of clinical follow up, she had history of sudden onset of severe abdominal pain. She was diagnosed to have small bowel ischemia and the right sided femoral artery thrombosis with complete occlusion of right femoral artery. Emergency laparotomy and small bowel resection and anastomosis done along with right sided above knee amputation.

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At this time, again she is admitted with the history of abdominal. Bowel, internal organ ischemia and ectopic pregnancy were excluded. Her transvaginal and transabdominal ultrasound scan reveals Intra uterine life fetus with the CRL of 7+4weeks, no free fluid noted in peritoneal cavity, urine analysis is positive for pus cells therefor urinary tract infection diagnosed treated accordingly. As discussed with hematology department, management was planned to regulate her PT/INR as an inward patient, tinzaparin was started with aspirin, and all pregnancy related screening normal until her 28 weeks of POA, mild IUGR was diagnosed at her 30 weeks of POA otherwise pregnancy was uneventful.

At her 35 weeks of POA, Haematology department decided to transfer the patient to castle street hospital for women for further pregnancy surveillance and for most specialized care.

Discussion: Treatment regimens for APLS must be individualized according to the patient's current clinical status and history of thrombotic events. In the case of catastrophic form intense treatment and monitoring is mandate to prevent life threatening events like pulmonary embolism.

RARE PRESENTATION OF PRE ECLAMPSIA AS ACUTE CORTICAL BLINDNESS IN A POST PARTUM WOMAN

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Introduction: Posterior reversible encephalopathy syndrome (PRES) is rare presentation of pre eclampsia. It is clinico-radiological diagnosis which first described in 1996. PRES most commonly associated with pre eclampsia or eclampsia which is more common in intra partum or post partum rather than antenatal period. Main stay of management is early identification, blood pressure control, prevent seizures and delivering of placenta.

Case: A 32-year-old multigravida with one previous vaginal delivery admitted to maternity unit at 38 weeks +4days of gestation with labour pains. Her antenatal period was uncomplicated. On admission blood pressure was 130/85mmhg, urine albumin strip test was negative. Same day she delivered a baby girl with birth weight of 2.25kg within two and half hours duration of labour. Intrapartum period was uncomplicated. Seven hours after delivery patient complained complete loss of her vision and headache. Within next 15 minute she developed a generalized tonic clonic seizure which last 1minute. At that time blood pressure was 170/105mmhg with exaggerated tendon reflex. Patient received magnesium sulphate 4g bolus followed by 1g per hour infusion. Blood pressure controlled with intravenous labetalol. Computed tomography brain shows no evidence of acute intracranial hemorrhages but hypodense area in parietal and occipital lobes. With control of blood pressure blindness was recovered completely in next two hours. Urgent biochemical investigations shows evidence of HELLP syndrome (platelet 58 000, ALT-586 IU, AST-347 IU, blood picture features of microangiopathic hemolytic anaemia). Patient received

magnesium sulphate infusion for next 24hours and blood pressure maintained <140/90mmhg. Patient was fully recovered in next 3 days clinically as well as biochemically and discharge on post partum day 7 without anti hypertensives.

Discussion: Posterior reversible leukoencephalopathy syndrome is a rare complication of pre eclampsia and eclampsia which may presented with headache, confusion, seizures and visual loss. Common visual abnormalities present in PRES syndrome are hemianopsia, visual hallucination, visual neglect, and cortical blindness. Visual abnormalities usually recovered within 4 hours to 8 days after commencing treatments. Hypertensive retinopathy and exudative retinal detachment are other reasons for visual loss in pre eclampsia and eclampsia.

Magnetic resonant imaging (MRI) is the investigation of choice which shows symmetrical white matter edema in the posterior cerebellar hemisphere mainly involving parieto-occipital region bilaterally. More severe radiological finding can be observed in more severe clinical picture.

Management of PRES is included blood pressure control, prevention or treatment for seizure with magnesium sulphate and delivery of fetus and placenta. Controlling of blood pressure is vital to prevent permanent brain damage and the aim is reduced diastolic blood pressure below 100-105mmhg. More aggressive control of blood pressure may lead to stroke and coronary.

A RARE CASE OF MILLER-FISHER VARIANT OF GUILLAIN-BARRE SYNDROME IN PREGNANCY

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Miller-Fisher syndrome (MFS) is a rare variant of GBS which is characterized by a triad of ataxia, areflexia and ophthalmoplegia. Incidence of GBS is 1-2 per 100 000 worldwide. Among them Asian countries have a higher prevalence of Miller-Fisher variant estimating 18-26% of GBS compared with 3-5% in west.

26 years old multipara at 24 weeks period of amenorrhea was admitted to our maternity unit with a history of vomiting and back pain for 2 days. Within the next 48h she developed progressive lower limb weakness with paraesthesia, unsteady gait, bilateral lower motor type facial nerve weakness and bulbar palsy. Her upper limb and chest muscle were not affected. Nerve conduction studies confirm the diagnosis and thus was managed with IV immunoglobulin 25g daily for 5 days with frequent monitoring of lung function. Pregnancy was otherwise uncomplicated. Labour was induced at 37 weeks +5 days along with oxytocin augmentation. Her labour progressed satisfactory and delivered vaginally within 5 hours' duration of labour. At post partum 6 weeks she was largely improved with residual lower limb weakness.

GBS in pregnancy is a rare condition and miller fisher variant is even rarer. High index of suspicion is needed for early diagnosis as it could be easily mistaken for psychological complains or as effects of hyper emesis in early pregnancy. Ataxia in MFS is usually severe and could make patient bed ridden which in turn

increase the risk of deep vein thrombosis and pulmonary embolism subsequently. Thrombo-embolic prophylaxis, adequate hydration physiotherapy and electrolyte monitoring are required simultaneously. In Addition to conservative management, plasmapheresis and intravenous immunoglobulin are used to modify disease progression, to which our patient responded well. In review of nelson and maclean literature, this condition does not affect pregnancy and therefore termination of pregnancy is not indicated. It also has no effect on uterine contractions or cervical dilation other than insignificant delaying of second stage. There for rate of instrumental delivery may higher than normal. Induction of labour or caesarean section in acute condition should avoid as it worsen the condition.

In conclusion MFS in pregnancy is a rare condition and high index of suspicion is important for early diagnosis. Overall management of GBS in pregnancy is similar to non pregnant woman which need early diagnosis and multidisciplinary input in order to achieve good pregnancy out come.

PREGNANCY IN THE HYPOKALEMIC PERIODIC PARALYSIS PATIENT – TWO CASE REPORTS

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Background: Hypokalemic periodic paralysis is a rare disease where episodic bouts of acute onset limb weakness occur in association with potassium levels less than 3.0 mEq/L (range 3.5 - 5.1 mEq/L). Two thirds of the cases are hereditary with autosomal dominant inheritance and one third is sporadic. High carbohydrate meals, extreme temperatures, stress, alcohol, heavy exercise, fasting, excess salt intake and diuretics may provoke attacks. Menstruation, anaesthesia and pregnancy also have been reported to exacerbate the familial form. Bouts of hypokalemic periodic paralysis in pregnancy are a rarer occurrence.

Case 1: A 33 year old lady with two children, had intermittent mild proximal muscle weakness for 2 yrs. Her 3rd pregnancy was a miscarriage at 8weeks for which she required blood transfusion. Two months later she developed marked weakness of proximal muscles with severe pain. On examination the lower limbs were weaker than the upper limbs, proximal more than distal. Serum potassium was 2.3 mEq/L. Familial hypokalemic periodic paralysis was diagnosed. Her father and uncle had the same disease. She was treated with KCl, Pottasium sparing diuretics and reassurance. A year and a half later she presents in her fourth pregnancy at 37weeks having had an uncomplicated antenatal history. Up to date she has not had repeated attacks.

Case 2: A 25 year old primigravida at 32 weeks of gestation complained of sudden onset generalized body weakness on the 3rd day of a viral upper respiratory tract infection. On examination the lower limbs were weaker than the upper limbs. Serum potassium was 2mEq/L with high urinary potassium, background metabolic acidosis and heavy proteinuria. She was treated with Potassium citrate, KCL, HCO₃⁻ and was referred to the Nephrologist. Fetal wellbeing was satisfactory and it was planned to review her serum potassium postpartum.

Discussion: Acute flaccid paralysis following glucose challenge

test, intramuscular steroid injection, hyperemesis, or simply inadequate hydration, could be due to hypokalemic paralysis in pregnancy. Undetected, this may lead to respiratory paralysis or fatal arrhythmia. Trigger identification, dietary modification, behavioural and environmental management along with drugs to maintain potassium levels are all that is required. Vaginal delivery is a possibility with careful monitoring, epidural analgesia and avoiding active maternal efforts. However the newborn is at risk of developing respiratory distress, flaccid paralysis and feeding difficulties.

PRE-PREGNANT EXCESS WEIGHT AND MATERNAL OUTCOMES

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Introduction: Overweight and obesity is increasing in prevalence worldwide over the past few decades. Pre-gestational excess weight has shown to influence maternal morbidity and mortality. This study describes the characteristics, associated factors and maternal outcomes of women with pre-gestational excess weight.

Objectives To describe maternal outcome of pre-gestational overweight and obese women delivering at Colombo North Teaching Hospital - Ragama.

Method: A hospital-based descriptive cross sectional study was conducted. A sample of 535 women with reported pre-gestational body mass index (BMI) >25 kg/m² in the pregnancy record delivering at all postnatal wards of Colombo North Teaching Hospital – Ragama were recruited using non-probability consecutive sampling method. Data was collected by an interviewer-administered questionnaire.

Results: More than 75% of women belonged to 26 -30 (38.1%) and 31 - 35 (38.5%) year age groups. A majority (n=410, 81.8%) had education above GCE (O/L). A monthly income level above Rs. 50,000/- was reported by 60.0% (n=321). Many (n=374, 69.8%) women were multipara and 35.7% (n=191) had a history of subfertility. During current pregnancy 47% (n=251) had gestational diabetes (GDM), 33% (n=177) had Pregnancy Induced Hypertension and 9.35% (n=50) had both. According to mode of delivery 54% (n=288) delivered by caesarian section and 7.28% (n=39) delivered by instrument. Post-partum period was complicated with haemorrhage (35.3%, n=189), difficulty in mobilization (15.1%, n=81), wound infection (15.2%, n=82), Elevated blood pressure (13.5%, n=72), difficulty in passing urine (2.8%, n=15), ICU care (1.1%, n=6) and hospital stay for >5 days 70.1% (n=375). Advanced maternal age (p<0.05), high income (p<0.05), being employed (p<0.05), multiparity (p<0.05), and GDM (p<0.001) were significantly associated with high maternal BMI.

Conclusions and recommendations: Well-educated, employed, multiparous and elderly women from high economical backgrounds reported excess pre-gestational BMI. They reported numerous antenatal and postnatal maternal complications which could be prevented by evidence-based and locally applicable approaches.

Key words: obesity in pregnancy, maternal outcomes

A RARE CASE OF PREGNANCY ASSOCIATED ATYPICAL HAEMOLYTIC URAEMIC SYNDROME PRESENTED WITH PLACENTAL ABRUPTION

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Introduction: Pregnancy associated haemolytic uraemic syndrome (p-aHUS) is a rare disorder with an estimated incidence approximately 1 in 25,000 pregnancies. Pathophysiology and presentation of the disease remains poorly understood. Mutations of genes coding for proteins involved in regulation or activation of the alternative complement pathway have been established as a risk factor for aHUS. It carries significant perinatal or maternal morbidity and mortality. Correct diagnosis and timely management is important to improve the outcome. We report a case of p-aHUS who presented with placental abruption and recovered completely.

Case report: A 27-year-old mother presented to us in her second pregnancy at 28+6 weeks of gestation with elevated blood pressure. Her first pregnancy ended up in a neonatal death after an emergency hysterotomy at 27 weeks for HELLP syndrome. Index pregnancy was complicated with GDM. However, blood pressure was normal till the presentation. Three days later she had an acute episode of vaginal bleeding with abdominal pain and underwent an emergency hysterotomy for placental abruption. Following the procedure her urine output was reduced and she was managed as HELLP syndrome with acute kidney injury in the intensive care unit.

Despite improvement of her urine output with fluid replacement, her serum creatinine level increased gradually with dropping platelet counts and low haemoglobin level without evidence of bleeding. Evidence of haemolysis was seen with rising LDH levels and microangiopathic haemolytic anaemia in blood picture. P-aHUS was suspected and immediate therapeutic plasma exchange was offered.

Following five cycles of plasma exchange, she improved with reduced LDH levels and improving platelet counts. She required further haemodialysis and recovered completely following 6 cycles of haemodialysis.

Conclusion: Diagnosis of p-aHUS is difficult since most severe pregnancy and postpartum diseases mimic the similar presentation. Prompt treatment with plasma exchange is necessary to prevent organ damage. These rare pathologies should be thought about when conventional treatment procedures fail to respond.

A CLINICAL AUDIT ON “ORAL GLUCOSE TOLERANCE TEST RESULTS OF PREGNANCY ACHIEVING CURRENTLY RECOMMENDED TREATMENT” AT TERTIARY CARE HOSPITAL

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Introduction: Gestational diabetes mellitus (GDM) is defined as impaired carbohydrate tolerance resulting in hyperglycaemia, which first develops or become diagnosed during pregnancy. It

is important to screen, diagnosis and start treatments of mothers who are at a risk as GDM as it can adversely affect to both mother and fetus.

Objectives: This was an audit conducted in De Soysa Hospital for Women, Colombo, Sri Lanka, ward 5 antenatal clinic over one month (11th January 2018 to 10th February 2018) of period to detect mothers who are presented to clinic after 24 weeks of gestation with an abnormal OGTT report. Diagnosed GDM, undiagnosed GDM and normal OGTT patient were identified. Medical officers who working at ward 5 antenatal clinic was educated with current NICE recommendations and planned for assess again with repeating the audit in three months period in future.

Methodology: We used a self-administered questioner to collect data among mothers who attend their antenatal clinic at De Soysa Hospital for Women, Colombo. Data was analyzed by SPSS.

Results: There were 96 participants who had screened for GDM. Out of them 16 (16.7%) were body mass index (BMI) over 30kg/m², 16 (16.7%) were had a previous history of GDM, 48 (50%) had a family history of diabetes among first degree relatives and 96 (100%) had a minority ethnic family origin with a high prevalence of diabetes. On OGTT assessment 20 (20.8%) had abnormal fasting blood sugar (FBS) value, 64 (66.7%) had an abnormal 2nd hour OGTT value and 12 (12.5%) had both abnormal FBS and 2nd hour value. 76 (79.1%) were identified and started on treatment modality. 20 (20.9%) were not identified and not commenced on treatment. 63% (n=76) were started on medical nutrition therapy, 15.7% (n=76) were started on Metformin, 15.7% (n=76) were started on Insulin and 5.2% (n=76) were started on both Metformin and Insulin.

Conclusion: As all our pregnant mothers are having 1 risk factor for GDM (Minority ethnic family origin with high prevalence of diabetes) we should offer screening for diabetes for all women. Tracing the reports and identification of abnormal results should be done vigilantly. Commencement of treatment should be carried out to minimize the complications of hyperglycaemia in pregnancy.

KNOWLEDGE, ATTITUDES AND EXPECTATIONS WITH REGARD TO CONTRACEPTION AMONG FEMALES WITH A HIGH RISK OF ADVERSE PREGNANCY OUTCOME

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Introduction: Although Sri Lanka has a relatively low maternal mortality figures in comparison to other South East Asian countries, still we are striving to achieve the single digit figure in maternal mortality. In making it a reality, women should be made aware of a suitable contraception method as there was an unmet need for Family Planning among the married women according to the Sri Lanka Demographic and Health Survey in 2006/07. In this study women who were followed up at medical and oncology clinics attending Teaching Hospital Kandy and

Peradeniya, were assessed with-regard to the contraception knowledge and attitudes as many medical disorders derange with pregnancy and unmet family planning still contribute to significant maternal mortality and morbidity.

Objectives: Assess the practice, knowledge and attitude on contraception among women followed up at medical and oncology clinics at Kandy and Peradeniya. As there was no similar study in this study population, therefore sample size was calculated using $P=50\%$, as this provides the largest sample to the relevant topic, in this study group giving a total of 400. The patients who fulfilled the criteria were invited to take part in the study until the required sample size is achieved on voluntary basis and data was collected using a pre-tested self-administered questionnaire.

Results: In this study population ($n=406$) majority were housewives (68.5%) and 48.5 % of their husbands were involved in skilled jobs. 92.1% expected their first child between 25-30 years and 51.5% thought the inter-pregnancy interval should be 1-2 years while 45.3% thought it should be less than 1 year. 67.9% of these women haven't received any pre-pregnancy counselling and 75.8% of these women are expecting more children. 55.7% acknowledged that they need to be educated on contraception and majority (78.9%) did not have knowledge on emergency contraception. With-regard to the contraceptive users, commonly used method among these women was oral contraceptive pills (31.8%) followed by depot medroxy-progesterone acetate (26.1%), Intra Uterine Contraceptive Device (15.2%), sub dermal implants (11.7%) and other methods (10.0%). Therefore the unmet need of family planning was 5.2% with compared to 7.5% according to National Family Planning Programme Review (NFPPR) – Sri Lanka 2016. Preponderance (37.0%) of these women preferred to be made aware by the Public Health Midwives on contraception and 16.6% liked to be educated by the educating nursing offices at their clinics while 13.4% preferred to be educated by their family doctor, the rest preferred other methods. This trend is in-line with previous reports according to NFPPR 2016.

Conclusion: Considering their preferences on knowledge acquisition on contraception, we should focus on improving the accessibility of knowledge on contraception and emergency contraception among these medical and oncology clinic follow up patients in-order to reduce unmet family planning, unplanned pregnancies, maternal morbidity and mortality.

VHL SYNDROME COMPLICATING PREGNANCY

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Introduction: VHL syndrome associated with benign and malignant tumors in CNS with kidneys, pancreas, adrenals or reproductive organ involvement. Pheochromocytoma is a catecholaminesecreting tumor of the adrenal gland. Seen in 1: 54000 of pregnancies. With the modern treatment maternal mortality could be reduced to <5% while the fetal mortality stays as <15%.

Case report: 35 years old para 3 at 10weeks of gestation got admitted with hypoglycemia. She was a type II diabetic on treatment since 7 years. At 28 weeks she had severe episodic headache, sweating and palpitation associated with fluctuations

of blood pressure. Highest recorded was 220/120 mmHg & lowest was 70/50 mmHg. With extreme fluctuations of blood sugar levels too. Ultra sound scan could not detect any supra renal mass. 24 hours Urine VMA level was marginally elevated 22.1mg (1-12.6) but said to be normal due to recent dietary habit. Blood pressure controlled with oral labetalol 100mg, Diltiazem 60mg and prazosin 2mg. She further experienced orthostatic hypotension and severe hypoglycaemic episodes at 33 weeks of POG. Repeat 24 hours urine normetanephrine level was high. Repeat ultra sound scan showed a right sided hypervascular suprarenal mass. Case was discussed with the multidisciplinary team consisting Obstetrician, Endocrinologist, Surgeon, Radiologist, Anaesthetist, Haematologist and Paediatrician. Elective caesarean section was planned at 36 weeks after commencing phenoxybenzamine 10mg and propranolol 40mg to prevent hypertensive crisis because uterine contractions and stress during labour could release more catecholamines.

CT scan abdomen was done after delivery confirmed right sided pheochromocytoma. She came up with severe headache again. CT brain showed suspicious lesions in the cerebellum and vermis which was likely to be a haemangioblastoma and obstructive hydrocephalus. Referred to the neuro surgeon where she was placed with a ventriculoperitoneal shunt. Contrast enhanced MRI was suggestive of metastatic deposits in roof of fourth ventricle and left cerebral hemisphere. She underwent laparoscopic right sided adrenalectomy after 6weeks. Genetic studies showed association with Von-Hippel-Lindau syndrome, autosomal dominant inheritance of a mutation of tumor suppressor VHL gene. Haemangioma of retina treated with laser. Currently she is clinically asymptomatic and on close neurological follow up, might need a neuro surgery in the future. Her baby is doing fine but her sister diagnosed to be having a pheochromocytoma.

Discussion: This is a rare case of VHL subtypes 2A/ B in pregnancy. Management of VHL syndrome is complex. Early multidisciplinary approach could reduce morbidity and mortality.

CLEAR CELL MENINGIOMA IN A PREGNANT WOMAN

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Introduction: Meningioma is a form of tumor derived from membranes cover the brain and spinal cord inside the skull. Signs and symptoms of meningioma can worsen during pregnancy due to increase plasma volume, engorgement of blood vessels and presence of sex hormone receptors on tumor cells which leads to accelerate growth of tumor. Incidence of meningioma is rare compared to non-pregnant women and it will affect perinatal outcome.

Case report: A 36 year old mother of one presented to her obstetrician with gradual onset generalized tension like headache associated with nausea and vomiting at gestation of 29 weeks. Symptoms were lasted throughout the day and they were more pronounced in morning hours. On neurological examination revealed bilateral horizontal nystagmus, slight ataxic gait with

involvement of 8th and 9th cranial nerves. Funduscopic examination noted retinal haemorrhages with papilloedema. Magnetic Resonance Image (MRI) scan was done and there was a 5*4*3.5 cm sized lesion in right cerebella- pontine angle compressing the 4th ventricle. Ventricular system was not dilated and suspect Acoustic neuroma or Meningioma on radiological grounds.

Following neurosurgical opinion, planned for elective caesarean section at 32 weeks of gestation due to persistent worsening symptoms. After a course of steroid and magnesium sulphate caesarean section was done and neonatal care was provided to baby. Under general anaesthesia right sided posterior fossa craniotomy done and CP angle tumor was identified and excised.

Histological examination compatible with clear cell meningioma. Following surgery patient developed right sided lower motor neuron type facial nerve palsy with syndrome of inappropriate antidiuretic hormone. Post-surgical MRI showed changes following surgery with mass effect over right side pons without any residual tumor mass.

Discussion: During pregnancy intracranial mass lesions can mislead with obstetrics complications like hyperemesis gravidarum, eclampsia and post-partum psychosis. Abnormal fundoscopic examination, focal seizures and lateralizing neurological deficits will support the diagnosis of intracranial mass lesions. MRI is the 1st line imaging modality to confirm the diagnosis. With fetal monitoring we can closely follow up the pregnancy with help of other specialty modalities and can continue pregnancy safely up to term. Urgent neurosurgical advice should seek if there is suspected malignancy, impending herniation of brain matters or with progressive neurological deficit.

CASE REPORT: A RARE CASE OF SPONTANEOUS HAEMOPERITONEUM IN PREGNANCY (SHIP)

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Introduction: Spontaneous Haemoperitoneum in Pregnancy (SHIP) is a rare condition which leads to sudden haemorrhage into peritoneal cavity in pregnancy without a history of trauma. It could be secondary to endometriosis, rupture of uterine artery or varicose veins and aneurysms of the splenic artery. SHIP occurred mostly in the third trimester of pregnancy.

A 27 years old primi mother at 29 weeks of gestation transferred to us with severe abdominal pain and shortness of breathing. Severe orthopnea noted. Blood pressure was 110/80 mmHg, pulse rate 84b/min. Ultra sound scan revealed mild free fluid with turbid material in the peritoneal cavity. No evidence of pancreatitis, cholecystitis, portal vein thrombosis or ovarian cysts. Liver, hepatic vein and inferior vena cava also looked normal. Haemorrhagic thickened fluid aspirated and sent for analysis. White cell count was 15 000. Haemoglobin 8.9 g/dl. CRP, serum electrolytes, serum creatinine, liver function tests, serum amylase, Urine full report, D-dimer levels, chest X-ray were all normal. Blood picture showed moderate to severe normochromic normocytic anaemia. No morphological evidence of infection or inflammation. Blood culture was sterile but urine culture was positive for candida albicans. 2D Echo was normal. CTG was reactive. Consultant obstetrician, surgeon, physician,

microbiologist and anesthetist involved in the management. Intensive care was given. Suspected as intra abdominal sepsis. IV Co-amoxycylav and metranidazole given. Then changed to IV Merapenam. Peritoneal cytology report detected blood stained smear with scattered foamy macrophages, lymphoid cells and reactive mesothelial cells. No atypical cells. Repeat USS on day5 indicated persisting free fluid collection in RIF region with internal septations. Trace amount of free fluid in morrison's pouch too. With the course of antibiotics symptoms improved. She discharged with on day 10 without long term morbidity.

Discussion: SHIP is rare but potentially fatal for both mother and baby. Correct diagnosis and multidisciplinary approach can save both mother and fetus.

CASE REPORT: SEVERE METABOLIC ACIDOSIS IN PREGNANCY – WHILE ON METFORMIN FOR TYPE II DIABETES MELLITUS

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Introduction: A rare complication of metformin is the development of lactic acidosis with an estimated prevalence of 1-5 cases per 100 000 population and mortality of 30-50%.

A 32 years old para 2 at 37 weeks of gestation admitted with mild intermittent abdominal pain. She was diagnosed with type II diabetes mellitus at 13 weeks of POA managed with metformin 1g x 3 times per day by consultant physician. Her fundus was more than her dates of POA. Ultra sound scan showed polyhydramnios with AFI 34 cm, EFW 2.5kg. CTG was reactive. Post prandial glucose values were 62/56/72mg/dl. Patient has vomited twice in the night. Following day, CTG was not reassuring and she was asked to stay nil by mouth until delivered by caesarian section. She has vomited twice again and passed only a few drops of urine but has not informed anybody. Then she developed severe shortness of breath. Patient was severely dehydrated and dyspnic. Pulse rate 140 b/min, blood pressure 110/70mmHg, sPO2 99%, Lungs were clear, abdomen was tense, no urine output, capillary blood sugar was 63mg/dl.

Rapid IV fluid boluses given. ABG revealed severe metabolic acidosis with pH 7.01, serum k+ 6.7. Serum creatinine 2.7mg/dl, blood urea, FBC, liver function tests were normal, ECG showed sinus tachycardia. CRP 74. IV NaHCO3, calcium gluconate, fluids and dextrose- insulin infusions given. IV antibiotics started. After multidisciplinary team discussion emergency caesarian delivery was carried out under spinal anesthesia. Liquor stained with thin meconium. Baby was fine. Postoperative ICU care given. Dialysis was not indicated according to the Consultant nephrologists. Serial venous blood gases, serum electrolytes, blood sugar levels being done. Urine output was 50cc/hour with IV fluids 100m/h infusion. Patient's vital parameters gradually improved. On post operative day 1 soft tissue oedema and positive fluid balance noted. But patient was not dyspnic. USS showed no renal parenchymal disease or any structural defect. Patient recovered well without residual impairment.

Discussion: Differential diagnosis for the acute renal failure are Pre renal causes like-Lactic acidosis due to metformin, Diabetic ketoacidosis even with normal blood sugar values or Post renal causes as compartment syndrome. But here we witnessed a case

of severe metformin associated lactic acidosis aggravated due to dehydration, which resulted in renal impairment. But managed the complications successfully with multidisciplinary approach. This case highlights the importance of stopping metformin treatment during dehydration and illnesses.

Theme 3 Gynaecological Oncology

GYNAECOLOGICAL ISSUES AND CERVICAL CANCER SCREENING AMONG GROUP OF SCHOOL TEACHERS AT KANDY

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Introduction and objectives: School teachers are one of occupational category whom are not regularly targeted for routine gynaecological issues. Objectives were contraceptive prevalence among teachers, prevalence of uro-gynaecological issues, knowledge assessment regarding the cervical cancer and screening for cervical cancer.

Methods: Over the hundred past and present school teachers took part in special gynaecology clinic at Kandy, 89 teachers volunteered to provide the information via self-administered questionnaire and 96 underwent pap smears. All the pap smears were analyzed by the consultant pathologist himself.

Results: Mean age of the participants was 55.4 years (SD 9.6) and of them 62.9% were menopausal. Mean parity was 2.2.

Of the participants at reproductive age only 24.2% were using proper contraception method.

When considering the urogynaecological symptoms, 2.2% had chronic lower abdominal pain and 4.5% had noticed lump at vulva. 4.5% of them has experienced urinary frequency while nocturia, urgency, stress incontinence and dysuria were experienced by 32.6%, 7.9%, 20.2% & 3.4% respectively. However only 6.7% were already diagnosed with diabetes and on treatment.

Of the participants 51.7% has never undergone a single pap smear in their life. Busy life style (47.9%), privacy concerns (12.5%) and unawareness (12.5%) were the reasons for not doing pap smears. Of those who have underwent previous pap smear, majority has done only a once (28/89).

16.9% believed cervical cancer is caused by a virus and 56.2% admitted they have no idea regarding the aetiology.

With regard to the initial symptom of a cervical cancer, responses were marked as true for unusual vaginal discharge, post-menopausal bleeding, irregular per vaginal bleeding and could be asymptomatic by 30.3%, 27%, 33.7% and 29.2% respectively by the participants.

72.9% of the pap smears were normal. 12.5% had inflammatory changes 10.4% had atrophic vaginitis. One had low grade SIL and another one had ASCUS high grade.

Conclusions: Contraception prevalence among teachers is significantly low compared to the average Kandy district 69.1%.

Bothersome urinary symptoms have affected significant number of teachers and needs to address them.

Current prevalence of cervical cancer screening among teachers is not satisfactory. Even with this small number, significant number of abnormal smears were detected including the smears with risk of malignancy. Though large number of data is needed for proper estimation, this study emphasis on further evaluation of school teachers and the need of special clinics targeting them.

OVARIAN YOLK SAC TUMORS, CAN IT BE FAMILIAL, TIME TO THINK: A CASE REPORT

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Introduction: Malignant ovarian germ cell tumors (MOGCTs) are rare ovarian tumors, up to 5% of malignancies. Yolk sac tumors (YSTs) and embryonic carcinoma (endodermal sinus tumors) are highly malignant and represent 20% of OGCTs. In literature Since few cases of familial malignant OGCT have been described, we present a family where two sisters have affected by YSTs to explore the hypothesis that gonadal GCTs might share a common genetic predisposition, and to expand our understanding of whether a family history of MOGCTs is a warning factor.

Case: Mrs N a 35 years old G2P2C2 who is diagnosed patient with ovarian yolk sac tumor and has under gone fertility preserving right side salphingo-oophorectomy at the age of 19 years(2002). Following that chemotherapy completed at 2003 and defaulted follow up after 2004. In 2018 she presented with CT scan findings of a complex ovarian tumor suggesting recurrence disease. Her CA 125 and Beta HCG were normal with elevated alpha feto protein level. She underwent staging laparotomy with total abdominal hysterectomy, left side oophorectomy, omentectomy with biopsy of para aortic lymph nodes. Still the histology is awaiting.

Mrs S, younger sister of Mrs N, descent from the same parents a 32 years old G2P2C2 who is diagnosed patient with ovarian yolk sac tumor and has under gone fertility preserving right side salphingo-oophorectomy at the age of 21years(2005). Following that chemotherapy completed at 2006, again found to have recurrent Stage 1A disease in 2017 had undergone complete primary surgery where histology came as yolk sac tumor with no other germ cell element with immunoprofile showing strongly positive for pan CK and alpha feto protein.

Discussion and conclusion: GCTs arise from embryonic germ cells that fail to properly differentiate and, instead, undergo malignant transformation. Available evidences has shown each of the histological subtypes shows recurrent molecular characteristics of ploidy indices, DNA copy number changes, and specific expression patterns of mRNA, miRNA, and proteins. Above family might also have some molecular patterns. Although the incidence of OGCTs in the general population is quite low, its occurrence in multiple members of the same family suggests that agene conferring susceptibility to GCTs may exist

in some families. But which test to carry out to rule out familial predisposition is not clear at the moment.

ENDOMETRIAL CARCINOMA IN A YOUNG WOMAN

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Background: Endometrial carcinoma is the sixth most common malignancy in women worldwide and eighth most common malignancy among Sri Lankan women. Although widely accepted as a disease in the post menapausal women, 20% - 25% occur in pre-menapausal women and 2% -14% in women less than 40 years particularly in women with polycystic ovarian disease.

Case report: 38 year old mother of one child, planning for her 2nd pregnancy, presented with irregular heavy menstrual bleeding for 3 months. She had irregular cycles from menarche at 13 years. She married at 30 years and had no history of subfertility. The physical examination revealed a BMI of 29.43kg/m². She was not hirsute, did not have acne or acanthosis nigricans. Abdominal and bimanual examinations were unremarkable. Trans-vaginal sonography showed an anteverted uterus of the size 7.8 x 4.6 cm with an endometrial thickness of 14mm. Dialation and curettage was done and histology confirmed endometrioid type adenocarcinoma. At the same time a cervical biopsy was taken at 3 o' clock & 9 o' clock positions due to erythematous cervix and histology confirmed benign endo-cervical tissue. A total abdominal hysterectomy and bilateral salphingo oophorectomy was done. Histology confirmed Grade 1 disease with 50% myometrial invasion. She was referred to the oncology team for further management.

Discussion: As she had early stage disease and she is young without any co-morbidities, the surgical procedure righteously done should promise a very good prognosis. Conservative management with progesterone therapy, would have also been an option for her where selection is determined based on immune-histochemistry, expression of progesterone receptor, PTEN gene, DNA mismatch repair gene MLH1, and phosphor AKT gene. She may need to be on HRT to counteract the surgically induced premature menopause. However it has been found that ovarian preservation offers significant benefit for the low risk population.

A RARE CASE OF PELVIC EPENDYMOMA, DISSAMINATED TO EXTRA PELVIC ORGANS

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Introduction: Ependymomas are rare nervous system tumours which arise from the ependymal lining of ventricles and central canal of spinal cord. Extra neural Ependymomas are very rare and commonly seen in child-bearing females. It shows morphological and immunohistological features that distinct from neural tumours. Commonest site of pelvic ependymomas are in ovary, broad ligaments and pelvic soft tissue.

We present a case of a 26 year old unmarried patient who underwent a laparotomy for a pelvic mass in a peripheral hospital, there she only had a biopsy taken from the pelvic mass. Histology confirmed it was an ependymoma. Further investigations including a contrast enhanced computerized tomography (CECT) revealed a solid retro peritoneal turnout in the pelvis. Her pre-surgical tumour markers were as follows, CA 125 was 145 IU and other tumour markers including AFP, LDH and Beta HCG were normal. Subsequently she underwent a laparotomy at National Cancer Institute, which revealed a large retroperitoneal pelvictumour occupying the pouch of Douglas with omental deposits. She had a fertility sparing surgery with preservation of both ovaries and the uterus since the tumor did not arise from the pelvic organs and was completely separate from them. Histology confirmed a tumour composed of nests and sheets of spindle cells with fibrillary cytoplasm and forming pseudo rosettes around blood vessels. The nuclei were oval and fairly uniform with occasional (2/10 HPF) mitotic activity. In view of immune profile, tumor cells were positive for GFAP, s-100 and NSE. Then four cycle of chemotherapy was completed with bleomycine, etoposide and cisplatin. During follow up recurrence of tumour was detected in pelvic organs; mesentery, omentum as well as liver. She underwent a complete debulking since the disease was now in stage IV. Adjuvant chemotherapy was started postoperatively

Discussion: Central nervous system ependymomas are commonly seen in children, but extraneural or pelvic tumors are confined to younger females. Ovarian or pelvic ependymomas may arise from mis-directed primordial germ cells by estrogenic influence. Pelvic ependymomas are slow growing tumours. Morphological variations in these tumors are wide. They often resemble primary ovarian tumours including papillary serous tumors, granulose tumours and adenexial wolffian tumors. Ependymomas rarely express estrogen and progesterone receptors (ER/PR). Mainstay of treatment for pelvic ependymomas is surgery with or without chemo-radiation. Ependymoma responds to radiotherapy with a variable degree and response to the chemotherapy has not been well established. Some studies show Etoposide having a good response on ependymomas. Because of positive hormonal receptors high dose of tamoxifen or GnRH analog are used as adjuvant therapies. Extraneural ependymoma recurrence is reported within 6 months to 30 years of follow up period.

A CASE REPORT OF CHORIOCARCINOMA OF THE UTERUS IN A PERIMENOPAUSAL WOMAN

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Introduction: Choriocarcinoma of the female genital tract is a rare malignant disease and it can either be gestational or non-gestational. Both tumors have a distinct immunogenicity, sensitivity to chemotherapy, and prognosis however, it is difficult to distinguish with routine histologic methods. Gestational choriocarcinoma is a malignant neoplasm of trophoblastic cells derived from a previously normal or abnormal pregnancy, whereas nongestational choriocarcinomas are extremely rare and they commonly occur in the ovaries, which can also arise in the uterus

from germ cell or trophoblastic differentiation within endometrial carcinomas. It primarily occurs during the fertile period and is extremely rare after menopause.

Case report: 45yrs old mother of three children, presented with heavy menstrual bleeding of 7 months duration, which was worsen during last two months. Her menstrual cycles were regular and not associated with pain. She also had symptoms of anaemia. She never had a history of being diagnosed or treated for gestation trophoblastic disease. She was obese, pale with pulse rate 110/min, BP 100/60 mmHg, rest of the examinations were negative except mild PV bleeding. Trans Vaginal Ultra sound scan revealed bulky uterus with posterior wall submucosal fibroid. Her Hb was found to be 6.9gdl and due to the severity of bleeding TAH was done. Histopathology report came as choriocarcinoma of uterus which infiltrate, the outer myometrium, endocervix, and one ovary and numerous lymphatic emboli were present. The tumor doesn't reach the parametrium, paracervix or both fallopian tubes. The other ovary is free of tumor but showed marked stromal edema. In immuno – histochemistry, tumor cells were positive for beta HCG and the morphological diagnosis of choriocarcinoma was confirmed. Initial serum beta HCG was 190,000 mIU/ml. CT scan of abdomen, pelvis, thorax and brain showed soft tissue mass in the region of uterus suggestive of recurrence, enlargement of common iliac lymph nodes(R>L) otherwise negative. According to the FIGO classification our patient was staged as IV: 14. She was referred to the cancer hospital for further management. The β HCG levels were reduced with chemotherapy. Unfortunately patient succumbed before the chemotherapy cycle two probably due to side effects of drugs and superimposed respiratory tract infection.

Discussion: Gestational choriocarcinomas mostly occur in woman of reproductive age. Latency period of Choriocarcinoma varies. In our case, we could not rule out the possibility of a non-gestational choriocarcinoma with genetic testing, but the good response to chemotherapy with histology, immuno-histochemistry suggested a gestational origin.

A RARE CASE OF ACTINOMYCOSIS ASSOCIATED WITH IUCD PRESENTING AS AN ADNEXAL MASS MIMICKING OVARIAN CANCER

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Introduction: Actinomycosis is a disease caused by Actinomycoses israelii. It is a slow growing filamentous gram-positive anaerobic-to-microaerophilic bacterium which is a commensal in human gastrointestinal tract, oropharynx and urogenital tract. Disease is initiated following mucosal damage leading to chronic suppurative granulomatous inflammation, and formation of multiple abscesses and sinus tracts that may discharge sulfur granules. The commonest sites of involvement are cervicofacial 50% (lumpy jaw), thoracic 15-20%, and abdominal <20%. In women, pelvic Actinomycosis is also rarely seen, specially associated with intrauterine contraceptive devices.

Case presentation: A 49 year old mother of two presented with moderate to severe abdominal pain for six month duration. She was also on a copper IUCD for 17 years. However there was no history of vaginal discharge or fever. She also developed

chronic cough for 3-4months and tuberculosis was excluded after investigations. However her ESR remained elevated. Investigations revealed a mass in adenexia which was confirmed by a CT scan. During laparotomy she was found to have a malignant looking right adnexal mass involving right fallopian tube and ovary which was densely attached to pelvic peritoneum. She underwent hysterectomy, bilateral salphingo-oophorectomy, pelvic lymph nodes dissection with omentectomy. Histology was suggestive of chronic inflammation with actinomycosis infection. After seeking opinion from the microbiologist, IV coamoxiclav was administered for two weeks and oral tablets were continued for 6 months. She was followed up with regular pelvic ultrasound scans to monitor the resolution of the mass with treatment.

Conclusion: Pelvic Actinomycosis can mimic a pelvic mass and lead to unnecessary surgical morbidity. This should be specially considered in patient who is on intra-uterine contraceptive devices. However, most of the time, diagnosis is retrospective. Most patients can successfully be treated medically with high-dose intravenous and oral antibiotics. They may require treatment for up to 18 months with close follow up.

RECURRENCE OF VERRUCOUS CARCINOMA OF VULVA

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Introduction: Carcinoma of vulva is an uncommon gynaecological cancer and signifies 1-2% of all the cancers in the female reproductive tract. Verrucous carcinoma contributes to a small proportion of them. This cancer also originates in the oropharynx, perianal, ano-rectal regions. Although metastasis is rare, invasion of underlying structures do occur. So it is considered as a slow growing low-grade squamous cell carcinoma. It seems that human papilloma virus is responsible as an etiological factor only in 27% of cases. Various modalities are used to treat in primary and recurrent disease such as surgery, radiation and chemotherapy but none have been fully satisfactory. Recurrence following surgery is as high as 30-50%. Radiotherapy has shown greater recurrence rates.

Case report: A 76 years old mother of 8 presented with vulval lump around clitoris, sparing urethra for 6 months duration. She under went vulval biopsy and histology revealed verrucous carcinoma showing papillary architecture with prominent acanthosis, hyperkeratosis and a deep pushing invasive border. Wide local excision was performed and resection margins were free of tumour.

But she presented with a recurrence 12 months after the primary surgery. CECT abdomen and pelvis showed a localized vulval recurrence with no definitive vaginal, cervical, lymph node and distal involvement.

Recurrence of tumor involved Upper 1/3 of labia majora, minora and clitoris with typical cauliflower appearance. Vulvectomy was done with 1cm, radical margins with urethral sparing. No palpable lymph nodes were noted. Vulval reconstruction was done with 2/0 proline to reduce the risk of infection. Regular follow up plan was offered due to the risk of recurrence.

Conclusion: Surgery is considered as the most effective treatment in verrucous carcinoma of vulva, despite the association with local recurrence. Low relapse have been reported following surgery compared to radiotherapy. Anaplastic change following radiotherapy have been identified. Chemotherapy with combination of bleomycin, cisplatin, methotrexate and leucovorin has been used in a case of verrucous carcinoma of the penis. No consensus has been reached in the management of recurrent verrucous carcinoma of vulva and multidisciplinary team involvement and further research are warranted.

DILEMMA IN DIAGNOSIS AND MANAGEMENT OF EARLY STAGE ENDOMETRIAL CARCINOMA FOLLOWING CHEMO-RADIATION FOR IN-OPERABLE CERVICAL CARCINOMA

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Case: A 63 year old lady was presenting with post-menopausal bleeding. There was inoperable moderately differentiated squamous cell carcinoma of the cervix with normal endometrial curetting. Tumour mass has involved bilateral parametrium. Primary chemotherapy with external beam radiotherapy (EBRT) and intra-cavitary radiotherapy (ICR) were administered. Again she presented with post-menopausal bleeding after 9 months follow-up. No recurrence of cervical malignancy was identified. Trans-vaginal sonogram showed thickened endometrium with irregular margins. Endometrial sampling showed grade 1 endometroid adenocarcinoma.

Discussion: In primary setting, since proper endometrial assessment was not done, there is a dilemma in diagnosing the origin of this endometrial carcinoma. Whether it is de-novo or chemo-radiation induced is a question.

Main stay of management for locally advanced cervical carcinoma is chemo-radiation with EBRT, ICR and Cisplatin. Even though chemo-radiation is curative, repeated radiotherapy could not be offered for second lesion or for recurrence in the same area. Management is primary surgery for early stage endometrial carcinoma. They are relatively insensitive for chemotherapy. Progesterone based therapy is reserved for relapse disease. More recently it has been shown that carboplatin with paclitaxel can be used for both adjuvant treatment and relapsed disease. Adjuvant radiotherapy is reserved for high risk patients. There will be a problem in staging the disease. Radiology and Primary surgery allows proper staging for endometrial cancers. In this context, we have to rely on primary radiological staging, if surgical intervention is avoided. MRI abdomen and pelvis might helpful in deciding depth of myometrial invasion, lymphovascular invasion and extra uterine metastasis. Biopsy for Histopathology examination and Immunohistochemistry will be helpful in decide the origin of metastatic disease. There is a dilemma in management in our patient, whether to go for possible debulking surgery with pelvic lymph node dissection or planning for primary chemotherapy or adjuvant chemotherapy. Place for the omentectomy is controversial.

Conclusion: Adherence with the gold standard practice of hysteroscopy in assessment of post-menopausal bleeding even

with the background of unhealthy cervix will avoid dilemma in diagnosis of such cases. Management should be under multidisciplinary approach with the aid of onco-surgeon, oncologist, radiologist and pathologist. Since chemo-radiation cured the primary cervical cancer, primary debulking surgery with total abdominal hysterectomy, bilateral salphingo-oophorectomy and pelvic node dissection followed by the progesterone therapy with tight follow-up might be the best option.

AGGRESSIVE ANGIOMYXOMA OF THE VULVA: A CASE REPORT

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Introduction: Aggressive angiomyxoma (AA) is a rare myxoid neoplasm which frequently found in female vulval and pelvic soft tissue parts. It is slow growing and because of its locally infiltrative nature which extends insidiously to adjacent soft tissues and tendency for local recurrences, is termed aggressive. AA usually presents as a non-painful cyst like or polypoid lesion which is often misdiagnosed as a vulvar abscess, lipoma, Gartner cyst, Bartholin cyst etc. The tumor grows and displaces pelvic viscera but rarely invades them. However, distant metastasis is rare. AA predominantly occurs in the reproductive age women and are often positive for estrogen and progesterone receptors which signifies the role of gonadotrophin releasing hormone agonists (GnRH) in the treatment. We present a case of aggressive angiomyxoma which was excised surgically and treated with GnRH and tamoxifen.

Case report: A 37-year-old unmarried lady presented to us with a history of a large vulval lump for 9 years. She gives a history of marsupialization of a Bartholin abscess and a small vulval lump excision where the records were not available. At presentation, her vulval anatomy was distorted with a large lump measuring 30 x 20 x 10cm.

CT abdomen and pelvis showed evidence of a large recurrent vulval lump with swirled enhancing tissue within representing an aggressive angiomyxoma of the vulva. There was no pelvic or para- aortic lymph node enlargement or evidence of distant metastasis.

She underwent vulvectomy which revealed an aggressive angiomyxoma of the vulva. Tumour involved the lateral medial and inferior excision margins and was positive for estrogen and progesterone receptors.

Following surgery, she was treated with GnRH agonists and tamoxifen. Now she is followed up closely.

Conclusion: The mainstay of curative treatment for AA is wide surgical excision based on correct histopathological diagnosis. However, this is not often achievable since the tumour often blends with the adjacent tissue inseparably and it is often in close proximity to vital structures as urethra, vagina and rectum. This leads to high rate of local recurrences following surgery. Imaging of these tumors before surgery therefore is important to determine its extent. GnRH agonists have a role in management both in primary and recurrent disease. Some authors report its

use as monotherapy where surgery could not be undertaken and as neoadjuvant therapy to shrink the tumor before surgery.

A RARE PRESENTATION OF GESTATIONAL CHORIOCARCINOMA MISDIAGNOSED AS INCOMPLETE MISCARRIAGE, LESSONS LEARNT; A CASE REPORT

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Introduction: Gestational choriocarcinoma (GCC) is an extremely malignant tumor arising from the trophoblastic tissue. They initially invade the endometrium and myometrium, however, early blood borne systemic metastasis is also seen. Even though this is commonly seen following molar pregnancy, GCC develops in approximately 1 in 30,000 non-molar pregnancies. Two thirds of such cases follow term pregnancies, and a third develop after a spontaneous abortion, extra uterine pregnancies or pregnancy termination. Vaginal bleeding is the most common presenting gynecological symptom in all groups. The diagnosis of GCC is reported to be delayed in patients with a non-molar pregnancy due to subtle signs and symptoms of the disease. We report a case of GCC following a spontaneous miscarriage which was initially misdiagnosed as an incomplete miscarriage at subsequent presentation.

Case report: A 19-year-old lady presented to us with recurrent episodes of heavy vaginal bleeding and a positive pregnancy test with an uncertain period of amenorrhea. She had a history of surgical evacuation for a missed miscarriage one year back. Five months following the initial admission, she presented again with profuse vaginal bleeding with very low hemoglobin of 4.5g/dL. Her pregnancy test was positive; however, ultrasound scan did not show any evidence of intrauterine or extrauterine pregnancy. She was treated as a complete miscarriage and discharged following blood transfusion. One month later, she admitted again with similar symptoms and severe anemia of haemoglobin 3.5g/dL. Her pregnancy test was persistently positive and serum beta hCG was 62327 mIU/mL. Transvaginal ultrasound showed an endometrial thickness of 15mm. A biopsy was taken after suspecting retained products of conception with suction curettage which confirmed the presence of a choriocarcinoma.

Conclusion: The diagnosis of GCC following non-molar pregnancy is often difficult due to variable symptoms and this causes potential delay in diagnosis and misdiagnosis. Clinicians should have some index of suspicion when abnormal vaginal bleeding persists after a therapeutic intervention. For this reason, it is advisable to evaluate an abnormal bleeding for more than six weeks following any pregnancy with serum beta hCG to exclude gestational trophoblastic disease.

ADENOSARCOMA OF THE UTERUS: A CASE REPORT

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Introduction: Adenosarcomas of the uterus is a very rare malignancy. Here we present a case of uterine adenosarcoma which was diagnosed in June 2018.

Case report: A 23 year old G0P0, presented to a general gynaecology unit with AUB for 3 months. On examination she was found to have a normal size uterus with 4 x 4 cm necrosed polypoid mass protruding through uterine cervix. Ultrasound scan revealed a heterogeneous mass protruding through the cervix with normal ovaries. She underwent cervical polypectomy with piecemeal removal followed by uterine curettage. Histopathology examination revealed adenosarcoma with mitotic count 2-5/10 HPF. Immunohistochemical staining was positive for CD10. This patient was subsequently referred to gynae-oncology unit of Apeksha Hospital Maharagama, where she underwent MRI of abdomen and pelvis. There was no evidence of myometrial invasion, residual polyp or distant metastasis. Since there was a risk of tumour dissemination due to the previous uterine curettage and due to unavailability of optimal adjuvant treatment options, she was offered abdominal hysterectomy with ovarian preservation at multi disciplinary team meeting.

Discussion: Adenosarcoma is a variant of mixed müllerian tumours of the uterus which composed of malignant stromal and benign epithelial components. It accounts for 8% of all uterine sarcomas. Although it usually arises in the endometrium, it can arise in the cervix, myometrium, fallopian tubes and ovaries. It is typically a low grade tumour and behave like low grade sarcoma. It is most common in postmenopausal women but can affect women of any age. Symptoms may include AUB, enlarged uterus and cervical polyp. Although adenosarcoma is a low grade tumour, recurrences have been reported in upto 30-40% of patients with mortality rate of 20-25%. Adenosarcoma with sarcomatous overgrowth is a high grade tumour and runs an aggressive course. Unfavorable prognostic factors are sarcomatous overgrowth, deep myometrial invasion, presence of heterologous elements and extra-uterine spread.

Surgery is the primary means of treating uterine adenocarcinomas with hysterectomy and salpingo-oophorectomy. The role of ovarian preservation in premenopausal women is unclear because of role of estrogen in the progression or the recurrence of this disease is unclear. The benefit of lymphadenectomy is a subject of debate. There is no optimal adjuvant of systemic treatment strategy but standard sarcoma chemotherapy regimens such as doxorubicin, ifosfamide or gemcitabine/docetaxel found to have efficacy. Adenosarcoma should be a differential diagnosis when a large polypoid mass is occupying the uterine cavity and protruding into the vagina.

A RARE CASE OF PRIMARY SEROUS BORDER-LINE TUMOUR OF MULLERIAN TYPE OF THE BROAD LIGAMENT. A CASE REPORT

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Introduction: Primary malignancies of the broad ligament are rare. Due to nonspecific symptoms and similar radiological findings, it may be difficult to differentiate from an ovarian neoplasm clinically.

Case report: A forty year old nulliparous woman presented

with colicky lower abdominal pain with bilateral loin to groin radiation, bloating, bilateral ankle edema and increased frequency of defecation for one week duration. She had primary subfertility for thirteen years and her diagnostic laparoscopy was normal. She had regular cycles, no co-morbidities or family history of cancer syndromes. She had a distended abdomen with a non-tender, irregular surfaced, abdomino-pelvic mass of a thirty two week size gravid uterus which felt separately from the uterus on examination. She had bilateral pitting ankle edema. Ultrasound scan showed a large mass with cystic and solid components with high vascularity and mild ascites. Contrast enhanced computerized tomography confirmed an ovarian neoplasm without distant metastasis. CA125 level was 565.7 IU/ml. Early ovarian cancer was diagnosed. At staging laparotomy 200ml of ascitic fluid with a solid and cystic mass of 30X 24x15cm attached to the right side broad ligament was seen. Bilateral ovaries tubes and the uterus appeared normal with no tumour metastasis. Total abdominal hysterectomy, bilateral salpingo-oophorectomy and infracolic omentectomy was performed.

Histopathology confirmed the diagnosis of serous borderline tumour of Mullerian type from right side broad ligament with no capsular invasion or omental deposits. Ascitic fluid was negative for malignant cells. Repeat CA125 at six months was 6.4IU/ml.

Discussion: Primary epithelial border line tumours of mullerian type in the broad ligament are rare. The patients' age ranged from 19-67years (mean 33). They were unilateral, 1-13cm in greatest diameter. There were no reported cases of large tumours like in our case.

It is difficult to clinically, radiologically or biochemically distinguish broad ligament tumours from ovarian tumours, as they presented with vague lower abdominal pain with palpable adenexal mass and an elevated CA125 level. Histologically also they are similar to mullerian type epithelial tumours of the ovary and peritoneum and it was almost always diagnosed at the laparotomy or by histology as it was within or in the surface of broad ligament completely separated from the uterus, ovary and tubes.

A CASE REPORT OF DIFFUSE LARGE B CELL LYMPHOMA OF UTERUS MISDIAGNOSED AS UTERINE SARCOMA

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Background: Diffuse large B-cell lymphoma of the uterus is a very rare disease, with non-specific clinical presentation. The incidence of non-Hodgkin's lymphoma is approximately 20 in 100,000. Even though it primarily affects the lymph nodes and other lymphoid tissues, it may affect the extra-nodal tissues in one-third of cases, including the female genital tract with the incidence of 0.5-1.5%. The uterus is a rare site of primary involvement. Its prognosis depends on accurate and timely diagnosis and therapy.

Case report: A 70 year old multiparous woman, post-menopausal for 25 years, was presented with abdominal discomfort and increased abdominal girth of three weeks duration.

She also had weight loss and loss of appetite. She never experienced post-menopausal bleeding. There were no associated urinary tract symptoms. Bowel habits were normal. Her past medical and surgical history was unremarkable.

Abdominal examination revealed 18 weeks size lump arising from pelvis extending into left iliac fossa which is firm in consistency, with regular surface and well defined margins. On vaginal examination, cervix was firm and healthy; 18 weeks sized mass with limited mobility with obliteration of adenexiae. The other clinical examination was unremarkable.

USS revealed a 16 x 12 x 7 cm uterine mass with lymphadenopathy. Subsequent CT scan of the abdominal and pelvic showed grossly enlarged uterus with bilateral adenexal extension with increased vascularity and focal calcification. Ovaries could not identify separately. There were enlarged Para aortic, retrocaval and bilateral iliac lymph nodes. There was no hepatosplenomegaly. CT scan of the chest found to be normal.

Considering the suspicious of uterine sarcoma with multiple lymph node involvement, total abdominal hysterectomy with bilateral salpingo-oophorectomy and supracolic omentectomy was performed.

Unexpectedly, a diagnosis of diffuse large B-cell lymphoma, extensively involving the endometrium, myometrium, lower uterine segment and cervix with focal omental tumour deposits determined as a result of the postoperative immunohistochemical profile analysis. The tumour cells were diffusely positive for LCA and CD 20. And negative for CD3, CD10, SMA, Desmin and Pancytokeratin. Thus, patient was referred to the Department of Haematology and Oncology.

Conclusion: Primary malignant lymphoma of uterus is a rare disease, and the diagnosis is typically made with an immunohistochemical analysis. The first-line therapy is immunochemotherapy with or without radiotherapy. As uterine lymphoma presents with symptoms similar to that of other gynaecologic diseases including leiomyoma or leiomyosarcoma, careful evaluation and accurate and timely diagnosis and appropriate management is necessary.

A CASE OF XANTHOGRANULOMATOUS OOPHORITIS OF THE RIGHT OVARY IN THE BACKGROUND OF A CHRONIC APPENDIC-ULAR MASS – A PSEUDO-TUMOR

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Introduction: Xanthogranulomatosis is a rare form of chronic inflammation in which the cellular architecture of the affected organ is replaced by the numerous foamy macrophages, neutrophils, lymphocytes and polygonal xanthoma cells, eventually destroying the organ. This is commonly seen involving kidney, bladder and intestinal mucosa but affecting ovary is a rare occurrence.

Case: A 68 year old woman presented with lower abdominal pain and distension for 6 months, found to have a 16 weeks size mass arising from right pelvis which was tender. Ultrasound examination showed complex pelvic mass with cystic and solid

areas. Contrast enhanced CT stated 11x7 cm sized multilocular right adnexial cyst with solid areas with possible colonic and bladder invasion, raising the suspicion of metastatic right ovarian neoplasm. However CA 125 and AFP levels were normal. Staging laparotomy was performed with the anticipation of possible advanced ovarian carcinoma. Intra-operatively, an inflamed necrotic ileo-caecal mass involving appendix noted. Right ovary and adnexia couldn't be separately identified. Omentum covering the inflammatory mass was adhered to bowel mucosa and bladder was found, which mimicked the tumor invasion in radiology. No evidence of other distant metastasis was found. Excision of ileo-caecal mass with the inflamed appendix, infracolic omentectomy, hysterectomy with bilateral salphingo-oophorectomy was performed. The histology revealed the appearance of xanthogranulomatous oophoritis of the right ovary, meso appendix and xanthogranulomatous serositis of the appendix in the background of severe acute appendicitis. No malignant cells were found.

Discussion: Xanthogranulomatous oophoritis is an uncommon form of chronic oophoritis. Exact pathogenesis for this is unclear. Involved ovary gets enlarged and becomes a solid, yellow lobulated well circumscribed mass, involving adjacent organs, thereby mimicking a malignancy. Preoperative radiological assessment cannot differentiate it from malignancy and increases the patient's as well as clinician's anxiety and lead to radical exploratory surgeries especially in young women. When occurred in a young woman it can cause premature ovarian failure. Oophorectomy is the treatment of choice for xanthogranulomatous oophoritis. A preoperative assumption of this diagnosis should be considered to avoid radical surgical treatment, especially in patients with the background of appendicitis PID, endometritis or IUCD insitu.

UTERINE SMOOTH MUSCLE TUMOUR OF UNKNOWN MALIGNANT POTENTIAL (STUMP) IN A YOUNG FEMALE: IS HYSTERECTOMY NECESSARY?

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Introduction: Smooth muscle tumour of unknown malignant potential (STUMP) is tumour which cannot be diagnosed unequivocally as benign or malignant. Diagnosis, management and follow up is controversial in a woman with fertility desires due to its rarity.

Case report: A 22 year old unmarried female presented with heavy menstrual bleeding for two months duration. 17 months back she underwent a myomectomy due to uterine fibroids which gave rise to a similar clinical picture. In her previous ultra sound scan, three fibroids (6 x 6, 3 x 2, 3x3cm) distorting the endometrial cavity was identified, and all three were removed during surgery. Her symptoms resolved following surgery. Histopathology reported mitotically active leiomyoma. Ultrasound scan following symptom recurrence showed multiple uterine fibroids. Magnetic resonance imaging showed nine fibroids with largest measuring 5.5 x 5.2cm which had high vascularity and suspected sarcomatous changes with an enlarged left iliac lymph node.

Myomectomy and left side pelvic node dissection was performed. 50ml of ascitic fluid noted. All nine fibroids were

removed. Endometrial biopsy was taken as uterine cavity was accidentally opened during the surgery. Histology confirmed the diagnosis of STUMP. Immunoprofile confirmed patchy positivity for progesterone receptors and p53 with a ki-67 index of 14%. There were no malignant cells in the ascitic fluid, and the endometrial biopsy was normal. All 10 pelvic lymph nodes yield, was reactive. Following a multidisciplinary approach and thorough counselling hysterectomy with ovarian preservation was planned.

Discussion: STUMPS is a rare tumour. Clinical presentation resembles uterine leiomyoma and its diagnosis, malignant potential, management and follow up is controversial due to its rarity. The risk factors and its clinical behavior is poorly understood. It has a recurrence rate of 8-11% and may be delayed. It also seems to have metastasis outside the pelvis. There are no tumour markers predictive of recurrence.

Considering the proved possibility of recurrence, the gold standard for treatment is hysterectomy. Any recurrence may represent a form of "borderline" tumour or a "low grade leiomyosarcoma". Recurrence risk is high with p16 and p53 positivity who may need more aggressive treatment. This patient has got a recurrence within 15 months with a more aggressive histology type, which makes her a high risk patient. Therefore a multidisciplinary approach is mandatory in managing young patients with fertility wishes.

KNOWLEDGE ON WARNING SYMPTOMS AND SCREENING OF GYNECOLOGICAL MALIGNANCIES AMONG POSTMENOPAUSAL WOMEN

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Introduction: Menopause is an inevitable milestone in the reproductive life of every woman. Besides being a major cause of morbidity such as heart disease and osteoporosis, it is associated with gynaecological malignancies such as ovarian, endometrial in origin.

Objective: To assess the knowledge on warning symptoms and screening of gynecological malignancies among postmenopausal women.

Methodology: A descriptive study was done among all post menopausal women attended gynecology clinic and admitted to gynecology ward at De Soyza Hospital for woman during study period. An interviewer administered questionnaire was used to collect the data. Analysis was done by SPSS.

Results: A total of 92 women were studied, mean age of the study population was 54 years.

Among 92 women of whom 79 (85%) were aware that even a single episode of PMB is abnormal. Only 5(5%) women were aware that ovarian malignancies can present with dyspeptic symptoms, upper epigastric pain or altered bowel habits. Only 23 (25%) women have undergone at least one PAP test in their lifetime. No one is on any regular follow-up. 39 (42%) women were aware about self breast examination and all of them are doing it. Only 3 women have undergone breast cancer screening via mammogram. None of the women were screened for colonic or ovarian malignancies.

Conclusion: Study population has very poor knowledge regarding symptoms and screening of malignancies.

BORDERLINE MUCINOUS OVARIAN TUMOUR: A CASE REPORT

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Introduction: Borderline ovarian tumours are a distinct pathological group of neoplasms that demonstrate higher proliferative activity when compared with benign neoplasms but which do not show stromal invasion. They are typically seen in a younger age group with better survival rates.

Case: 27 year nulliparous woman presented with intermittent suprapubic and right iliac fossa pain of two months duration and was found to have a 20 week size pelvic mass. Ultrasound scan revealed a 12x10x8 cm size complex multilocular ovarian cyst. CA-125, LDH, AFP, hCG were normal. The calculated RMI was 17.6. She underwent Right salpingo-oophorectomy and it was noted that the cyst was consisting of mucinous fluid, rest of the abdomen and pelvis was normal.

The histology revealed a borderline mucinous tumour of right ovary. She was referred to Gynae-oncologist where she underwent diagnostic laparoscopy to staging followed by appendicectomy. She was not offered chemotherapy. She is currently followed up at gynae-oncology clinic with serial ultrasound scans 3 monthly for first two years, 6 monthly for another two years followed by yearly ultrasound scan thereafter. She was counseled regarding early completion of family followed by bilateral oophorectomy.

Discussion: Borderline ovarian tumours are a separate entity among ovarian tumours with an excellent prognosis. Serous borderline ovarian tumours are the most common histological type followed by mucinous tumours. Risk factors are similar to those recognized for invasive ovarian cancer. They are more likely to be asymptomatic and to be diagnosed as an incidental finding or at routine examination. Management of borderline ovarian tumours is individualised and depends on the age of the woman, the stage of the disease, the desire for pregnancy and the nature of the peritoneal implants. The cornerstone of the management is exploration of the entire abdominal cavity with peritoneal washings, total abdominal hysterectomy, bilateral salpingo-oophorectomy, infracolic omentectomy and appendicectomy in the case of mucinous tumours. Fertility-sparing surgery can be performed in early-stage disease, without affecting overall survival. The risk of recurrence varies between

0-58%, depending upon the histological type of borderline ovarian tumour and extent of primary surgery. When a borderline ovarian tumour is diagnosed following primary surgery multidisciplinary team care with specialist input from a gynaecological oncologist is recommended to ensure best management.

LEIOMYOMATOSIS PERITONALIS DISSEMINATA (LPD): A RARE CASE REPORT

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Introduction: LPD is a rare condition characterized by peritoneal and subperitoneal nodules primarily consisted of smooth muscle cells. Though it is benign in nature, may rarely degenerate into malignancy.

Case report: A 40 year old G2P2C2, presented with DUB and dysmenorrhea. She was previously healthy and had used COCP for 12 years. She underwent a laparotomy at a peripheral hospital which revealed multiple uterine myomas with multiple peritoneal nodules. Abdominal hysterectomy and right salpingo-oophorectomy was done. Biopsies were taken from the peritoneal nodules. Histopathology confirmed multiple uterine leiomyomas and the peritoneal nodules were suggestive of benign spindle cell tumours. Spindle cells were positive for Desmin and Smooth muscle actin. The diagnosis of LPD was made and was referred to Apeksha Hospital. She underwent a CECT which showed multiple soft tissue lesions involving bladder, small and large intestine. Laparotomy revealed ascites and widespread multiple peritoneal deposits over omentum in supracolic and infracolic compartments, small and large intestine and the pelvic peritoneum. Liver, under surface of diaphragm appeared normal. Patient underwent left salpingite-oophorectomy, omentectomy and maximum debulking.

Discussion: LPD is a rare benign condition. Approximately 100 cases have been reported. It mostly affects premenopausal women but it can occur in postmenopausal women and in males. The aetiology and pathophysiology is not elucidated. But it is considered that LPD originates from metaplasia of submesothelial, multi-potential mesenchymal cells. These tissues express ER and PR and high levels of aromatase. LPD is associated with exposure to high levels of estrogens (COCP, HRT). Aetiological correlation with previous myomectomy/hysterectomy (morcellation) and endometriosis has been reported. In addition, familial clustering has been reported. Majority of patients are asymptomatic. Symptoms are nonspecific and include abdominal pain, bleeding from vagina and rectum. LPD has been associated with presence of ascites, endometriosis and lymphadenopathy. Preoperative imaging is not effective for the differential diagnosis of malignancies. Only the Preoperative biopsy and histopathologic analysis permits that. Intraoperatively LPD presents as multiple, round nodules, varying in size detected on peritoneal or omental surface of the abdominal cavity, intestines, mesentery and retroperitoneum. LPD is a benign disorder with a good prognosis. But degeneration of LPD into malignancy has been reported. There are no elucidated guidelines on the treatment of LPD. Management depends on age, comorbidities, symptoms and fertility wishes.

Raloxifene, Anastrozole and GnRH analogues has been used for medical management. Oophorectomy and more aggressive surgeries recommended in high risk cases with malignant degeneration.

A RARE CASE OF DISSEMINATED PLACENTAL SITE TROPHOBLASTIC TUMOUR (PSTT)

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Introduction: Placental site trophoblastic tumour (PSTT), is a very rare and unique gestational trophoblastic disease (GTD). We report a case of disseminated PSTT following a normal pregnancy with high β -hCG value.

Case report: A 28 year old gravida 2 para 2 presented with heavy vaginal bleeding five weeks following vaginal delivery. Her pregnancy was complicated with frank haematuria in the first trimester which settled spontaneously in the second trimester. There was frank bleeding from the left ureters but imaging did not reveal a focus. Her first pregnancy was uncomplicated and was a vaginal delivery three years back. She was apparently well afterwards with regular cycles.

On admission her haemoglobin was 8.5g/dl, transvaginal scan (TVS) showed retained products in cavity. Evacuation of the products were carried out and bleeding subsided. Ten days later she developed recurrent bleeding. Her serum β -hCG level was 225,500mIU/ml. Thickened endometrium of 15mm was seen on TVS. The histology confirmed the diagnosis of placental site trophoblastic tumour (PSTT) with intermediate trophoblasts, scattered syncytiotrophoblasts, myometrial invasion and myometrial vessel wall invasion with necrosis. Tumour involved full thickness of the myometrium on magnetic resonance imaging with multiple metastatic deposits in the lungs and brain on computerized tomography. Diagnosis of disseminated malignant PSTT was made.

She was treated with 6 cycles of EMA-CO regimen of chemotherapy. She developed fits during initial treatment. Following completion of chemotherapy her serum β -hCG level was 42mIU/ml. She underwent hysterectomy with ovarian conservation following multidisciplinary decision. Metastatic disease was not seen in repeat imaging.

Discussion: PSTT is an extremely rare form of GTD and mostly behaves as benign with only 10-15% being clinically malignant. It could occur following normal delivery, molar pregnancy or a miscarriage and presents with irregular bleeding or amenorrhoea. It is usually characterized by low levels of β -hCG due to proliferation of intermediate trophoblasts which do not secrete hCG although cases with high β -hCG is reported. Surgery is the mainstay of treatment in disease confined to the uterus as it is usually chemoinensitive.

For treatment of metastasis there are no guidelines as it is very rare, but it can be successfully managed with chemotherapy although mortality is high with metastatic disease. Our patient responded well to chemotherapy as she had high hCG value. Since she had metastatic disease hysterectomy was performed to prevent recurrence. Multidisciplinary care is of utmost importance in managing these rare cases.

Theme 4

Urogynaecology and Pelvic Floor

A CASE REPORT OF SUCCESSFUL LAPAROSCOPIC REPAIR OF RECURRENT VESICOVAGINAL FISTULA

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Background: Benign gynaecological surgery is a common cause for vesicovaginal fistula (VVF). In addition to the constant leakage of urine, odour, and discomfort, it causes significant impact to the women's psychological and social wellbeing. VVF's are corrected by transvaginal or transabdominal approach. Recurrent fistula formation is the main complication of VVF surgery and presents a surgical challenge.

Case history: 42 years old woman of three children underwent an ascending vaginal hysterectomy due to a symptomatic adenomyotic uterus in a peripheral hospital. Intraoperative bladder damage was detected which was repaired vaginally. She presented with left sided colicky renal pain in a week. A CT Urogram confirmed an ureteric obstruction and she was transferred to a tertiary care urology unit for surgical correction of ureteric obstruction. Failed stenting resulted in a nephrostomy to relieve the hydronephrosis. However, three weeks later, she developed severe urosepsis which led to the occurrence of a vesico vaginal fistula. Cystoscopy and cystogram confirmed a VVF of 1 cm size close to the left vesico-ureteric opening. From there onwards, over a period of 11 months, she underwent a series of surgical procedures for the correction of the VVF. These included transabdominal VVF repair with bi-valving of the bladder and reimplantation of left side ureter, a transvaginal repair, a laparoscopically assisted transvaginal repair and finally a combined laparoscopic and vaginal repair. All these repairs failed and the maximum she was continent post repair was for a period of 4 days. Referral to the professorial unit in Obstetrics and Gynaecology at Colombo South Teaching Hospital resulted laparoscopic repair of VVF. Both ureters were stented prior to surgery. Laparoscopic repair of the VVF was done by bi-valving the bladder and excision of the fistula. The vagina and bladder were closed and an omental flap interposed between the suture lines. Continuous urine drainage was performed with a Foley catheter for three months with antibiotic cover. She had a successful recovery and is now symptom free.

Conclusion: Urosepsis can be considered a major contributory factor for recurrent VVF. Laparoscopic repair of recurrent VVF can be carried out with very good outcome.

Theme 5

Education and Training

KNOWLEDGE AND PRACTICES ON ANTENATAL CARE AMONG PUBLIC HEALTH MIDWIVES IN KANDY

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Introduction: Public health midwives play a pivotal role in antenatal care specially in the health education and carrying out the basic ground level work. Hence it is necessary to update their knowledge as many pregnant mothers seek their advice.

Method: Seventy-one (71) midwives attached to hospitals who attended an in service training program were provided a self-administered questionnaire. It included antenatal care aspects such as antenatal drugs and supplements, symphysio-fundal height (SFH) measurements, ultrasound scan and identification of warning signs, and minor complains of pregnancy. The percentage of participants who knew the recommended standard for each of the above parameters were calculated.

Results: Mean age of the participants was 45 years (SD 7.5, range 27-58) and their mean service period was 18 years (SD 6.6).

According to Sri Lanka national guideline, the standards for iron supplementation is 60mg of elemental iron per day and less than 11 g/dl haemoglobin (Hb) level considers the diagnosis of anemia. Although 66.2% and 89.7% of them respectively knew above facts, only 16.9% could correctly state the repeat Hb to be assessed between 28-30 weeks.

Diabetes, hypertensive disease in pregnancy and multiple pregnancy are some of the indications for low dose aspirin while diabetes and epilepsy are indicated for 5mg folic acid supplements. 35.2%, 83.1% and 39.4% of them correctly stated the indications for low dose aspirin and 5mg folic acid supplements were taken as indications by 53.5% and 26.8% of the participants in order.

71.8% of them knew the correct technique of SFH measurement and 45.1% correctly stated that the SFH measurements are not accurate in predicting the growth in multiple pregnancy.

According to National Institute for Health and Care Excellence (NICE) standards gestational age estimation scan, anomaly scan and repeat placental localization to be done between 10-13+6, 18-20+6 and 32 weeks respectively. 50.7%, 74.6% and 85.9% of them knew above facts in order.

91.5% of them has advised to get admit immediately in cases of incomplete miscarriage with heavy bleeding but only 54.9% could identify the initial symptoms of suspected ruptured ectopic and referred for hospital admission immediately.

Only 22.6% of them had in-service training within last 2 years and 83.1% suggested they need in-service training at least per 3-6 months.

Conclusions: Overall knowledge was average with significant lapses in identifying warning symptoms. Conducting in-service training for public health midwives on regular basis is essential to improve the maternal health care.

AN AUDIT OF PARTOGRAMS – ARE WE DOING PARTOGRAM MONITORING SAFELY IN LABOUR ROOM?

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Introduction and Objectives: Partogram is a graphical record of key events which occur in labour, the progression of the

labour with both maternal and fetal conditions and the observed time of key events. It is the best tool to help to detect whether labour is progressing normally and to detect abnormal events early if any. Numerous researches done, have confirmed that intrapartum monitoring with the partogram will minimize the complications and prevent foeto-maternal morbidity and mortality. But the appropriate quality documentation of all events as per recommendations is mandatory to optimize the expected clinical outcome and to minimize litigation and medico legal implications.

Methods: This audit was done at labour ward number 22 Teaching Hospital Jaffna from November to December 2017. Hundred national partograms were selected from the previous bed head tickets randomly. Standards of the components were taken as 100 % documentation of each and every component of the national partogram.

Results: Documentation regarding the personal details of the patients including name, age, BHT number, parity, date and time of labour room admission and first vaginal examination time with findings were marked in all of the partograms. Contraction free interval and duration of contraction were marked correctly in only 62 % of partograms. Starting time of the oxytocin infusion and dose adjustment were marked properly in 67% of partograms. Only 67% of partograms had subsequent details of abdominal examination and vaginal examination documented. Maternal vital parameters were documented in 78% of partograms. Fetal heart rate and labour progression in the first stage was marked in 93% of partograms. The time of full dilatation was only documented in 26% and evidences for proper fetal heart rate monitoring in the second stage was only documented in 16 % of partograms.

Conclusion: Partogram is a low cost reliable monitoring tool of labour in Sri Lanka, especially with limited facilities and human resources. Proper documentation will predict problems early and appropriate action can be taken to minimize such complications. The legal issues too could be minimized if key events are properly documented as per recommendations in the SLCOG guidelines. During this retrospective analysis, overall satisfaction regarding documentation of partogram monitoring is poor, especially in second stage of labour, which is the most critical period that require vigilant monitoring to ensure safety of mother and fetus. The deficiencies identified in the audit were discussed at a meeting with the staff and the required action for improvement were emphasized. A re-audit will be done in 6 months.

Theme 6 Feto-Maternal Medicine

A CASE REPORT: HIGH TSH LEVELS CONTRIBUTING TO OVARIAN HYPER STIMULATION SYNDROME

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Introduction: Ovarian Hyper-Stimulation Syndrome (OHSS) occur in 3.1-8% of women who undergo invitro fertilization. However, it is significantly rarer in spontaneous pregnancies.

Etiology of OHSS is complex, but human Chorionic Gonadotrophin (hCG), either exogenous or endogenous is believed to be a contributing factor. Development of OHSS involves increased vascular permeability which leads to hemoconcentration and thereby hypercoagulability.

Clinical description: A 24 year old lady diagnosed with hypothyroidism on thyroxine, who defaulted treatment for over one year presented with a Period of Amenorrhea (POA) of 7 weeks with moderate lower abdominal pain, nausea and shortness of breath. When investigating she was found to have bilateral multi cystic ovaries with an ovarian size of 20 cm² and mild free fluid in the abdomen. There was a single live fetus with a Crown Rump Length (CRL) compatible with the POA. The Thyroid Stimulating Hormone (TSH) levels were >100 uIU/ml. All other investigations including full blood count, serum electrolytes, liver enzymes, urine full report and renal functions were normal. Diagnosis of hypothyroidism with moderate OHSS was made. Supportive management for OHSS was done while referring her to endocrinology clinic to start on levo-thyroxine. With subsequent follow up of one month and two months, her ovaries reduced to normal size while improving the thyroid profile.

Discussion: The alpha subunit of TSH and hCG are identical. Furthermore, evidence suggest that the homology exist in their receptors as well. This leads to the possibility that in situations where the TSH levels are very high, they could act on Corpus luteal cells together with hCG during pregnancy and augment the action resulting in OHSS despite normal levels of hCG.

Conclusion: In diagnosed patients with severe hypothyroidism with high TSH values, during pregnancy or during treatment for subfertility with ovulation induction agents, incidence of OHSS could be higher.

A CASE REPORT: MULTIPLE CEREBRAL VENOUS SINUS THROMBOSIS IN PUERPERIUM

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Introduction: Cerebral Venous Sinus Thrombosis (CVST) during pregnancy is an uncommon condition with an incidence 11.6 per 100,000 deliveries. Mortality in untreated cases of CVST range from 11.6-48%. The hypercoagulable state of pregnancy and puerperium is considered to be the main pathophysiology of CVST occurring in that period.

Clinical description: A 36 year old G4P4C4 Mother was transferred to us from a local hospital on Postpartum day 19 with a history of acute onset occipital headache, which was persistent and associated with Nausea, blurred vision and diplopia in the left eye. Her blood pressures were normal, with normal fundoscopy. There were no other clinical manifestations. The D dimers were high with a value of 766 ng/ml. The CT scan revealed a hyperdensity in left dural sinus suggestive of a left transverse sinus thrombosis. Thus a CT venogram was performed and it showed Filling defects in superior sagittal sinus, left transverse sinus, proximal part of right transverse sinus and sigmoid sinus suggesting multiple CVST. The full blood count, Liver enzymes, Renal functions, APTT and PT/INR were normal. After

confirming the diagnosis, according to Neurology team opinion she was started on IV heparin 1000u /hr in the acute phase followed by warfarin 5mg daily for 3 months while monitoring PT/INR levels and titrating the dose accordingly. Her symptoms gradually improved with no residual effect.

Discussion: This patient presented with classic symptom of headache with neurological deficit which lead to prompt evaluation with a CT scan which detected the thrombosis. Thus the treatment was started immediately despite the later CT venogram showing multiple site involvement.

Conclusion: As incidence of CVST is higher during puerperium due to hypercoagulable state, any patient presenting with headache, nausea, vomiting, neurological deficit or hemi paresis should carry a high degree of suspicion. If detected early, they would respond well for anti-coagulation therapy and complete cure can be expected while minimizing mortality rates. Furthermore, recurrence of CVST occur in about 6% with 80% of relapses occurring within the first two years. Therefore, close follow-up would aid in early detection and treatment.

CASE REPORT ON MANAGING CHRONIC PHASE OF CHRONIC MYELOID LEUKEMIA DURING PREGNANCY

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Introduction: The concomitant occurrence of pregnancy and chronic myeloid leukemia (CML) is an uncommon scenario. Worldwide prevalence of CML and its occurrence is not get quantified, but in some part of the world its incidence is around 0.7-1 in 100000 annually, but in pregnancy it is extremely low. The management of CML during pregnancy should be balanced between the therapeutic remission of diseases and the teratogenic effect of the treatment. Several mode of treatment have been used for CML during pregnancy which are cytotoxic drugs, alpha interferon and leukapheresis. Hydroxyurea is the main mode of treatment among the cytotoxic agents.

Case report: A 38 years P4C3 got admitted with the history of fever at her 15 weeks of gestation. She was diagnosed to have CML during her booking visit. She is previously healthy and during her booking visit found to have high WBC count which was 180000/ml³, so investigated and diagnosed as CML by blood picture and bone marrow biopsy but she is entirely asymptomatic.

She underwent leukapheresis three times and hydroxyurea was started which measures reduced her total WBC count up to 100000/ml³

Suddenly she developed high spike of fever with generalized lethargy, and her platelet was started to dropped, investigation reveals dengue antigen positive with high CRP level. She is treated with intravenous antibiotics and dengue regimen was initiated.

She is managing in a multi-disciplinary manner with the help of obstetrician and haematologist, as the mother like to continue the pregnancy after the careful counselling given by the treating team regarding fetal compromise during the highly potent chemotherapeutic agents such as tyrosine kinase inhibitors.

Discussion: Chronic myeloid leukemia (CML) is a myeloproliferative disorder characterized by the *BCR-ABL* oncogene, which results from a reciprocal t (9; 22) chromosomal translocation. Incidence ranges from 0.6 to 2.0 cases per hundred thousand in general population. The median age at diagnosis is 64 years, with the discovery of the pathogenetic *BCR-ABL* oncogene and the advent of tyrosine kinase inhibitors (TKI) in the treatment of CML, there has been a significant change in the natural course of the disease, changing the once fatal disease into a truly chronic condition.

In pregnancy when we consider the wellbeing of the fetus, the management is truly challenging.

CASE REPORT ON CONGENITAL DIAPHRAGMATIC HERNIA

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Introduction: Congenital diaphragmatic hernia (CDH) is a form of herniation of the abdominal contents by a weak point in the diaphragm leading to occupy the abdominal contents into the thoracic cavity interfering the normal development of the lungs. The condition may present as a part of a syndrome or an isolated lesion. The incidence of CDH ranges from 0.8 - 5/ten thousand births, and having male predominance.

Case Report: A 37 years old P5C4 admitted to hospital for confinement at her 38+4 weeks of gestation. Her booking visit was at her 20 weeks of gestation. She was defaulted to hospital clinics as well as MOH clinics after the booking visit, at her POA of 38+4 weeks, she got admitted for her confinement but she has the complaints of abdominal discomfort and shortness of breath. Examination reveals 45 cm of fundal height and dyspnea. Her random blood sugar was 198g/dl. Ultrasound scan reveals growth parameters compatible with 40 weeks of gestation and her amniotic fluid index was 24cm for all four quadrant but Doppler studies normal. Polyhydramnios was diagnosed and through anomaly scan was carried out. Complete right sided congenital diaphragmatic hernia was diagnosed and confirmed with the help of a consultant radiologist. Blood sugar was controlled with soluble insulin.

Mother and her husband was counselled regarding the mode delivery, place of delivery, treatment facilities for baby and the importance of contraception, patient agreed to get transferred to de soysa hospital for women for delivery. Baby boy delivered by elective caesarian section. Suddenly father of the baby denied to give consent for the urgent surgery for baby. So baby was kept in HI dependency unit and died by severe pulmonary hypoplasia

Discussion: The pathophysiology of CDH is due to lung hypoplasia, immaturity, pulmonary hypertension and cardiac dysfunction. Intra uterine fetal assessment of lung to head ratio and position of the liver by ultrasound are used to diagnose. Delivery usually recommended close to term gestation. Bowel decompression, avoidance of mask ventilation and endotracheal tube placement with or without extracorporeal membrane oxygenation are the main stay of treatment modalities than the surgical correction. Surgery is lifesaving but any how mortality still is around 50%.

CASE STUDY ON IDIOPATHIC INTRA CRANIAL HYPERTENSION IN PREGNANCY

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Introduction: Idiopathic intracranial hypertension (IIH) is a challenging disorder due to increased intra cranial pressure to diagnose, with a remarkably increasing incidence because of its close relation to obesity. The onset of symptoms is sudden and patients may seek medical advice from many different specialists before the IIH diagnosis is arrived. In the literature, IIH mainly affects young obese women with the incidence of 20 per hundred thousand. A well-established close relationship of IIH and obesity was studied,

Case report: A 31 years old P2C1 with the 9+2 weeks of period of amenorrhea attended to the antenatal clinic for her booking visit. She is a known patient of IIH since her 26 years old. Her body mass index was 34.2Kg/M². After gave birth of her first child, she was experienced a sudden onset of severe pricking type pain started from her occipital region.

With the aggravation of symptoms and impairment of social wellbeing, she sought an advice from a neurology specialist, who suspect space occupying lesion in the brain as she having papilledema and urgent contract CT was arranged. Two consecutive CT scans normal, MRI was planned. MRI imaging reveals Empty sella with Flattening of the posterior aspect of the globe so IIH was diagnosed but the gold standard test of lumbar Cerebro-spinal fluid pressure was not measured. Patient was strongly advice to weight reduction and avoidance of pregnancy because she is treated with high dose of acetazolamide. Symptoms was relived with acetazolamide and regular follow up planned.

This was an unplanned pregnancy but wanted according to mother. At booking visit harmful effect of acetazolamide to fetus was discussed with mother and care givers. Her entire pregnancy was uneventful and luckily baby have no gross structural anomalies.

Discussion: The main goal of management in IIH is prevent the visual loss and reduced the frequency of deliberating headache by reducing intra cranial pressure. Weight reduction, medical treatment with acetazolamide or other diuretics, Neurosurgical intervention with insertion of a ventriculo peritoneal shunt, Optic nerve sheath fenestration, CSF diversion, Dural venous sinus stenting are the treatment options.

Acetazolamide have some teratogenic effect in animal studies, but there are studies in literature with the promising good outcome of pregnancy after acetazolamide treatment for IIH in pregnancy.

CASE REPORT ON IDIOPATHIC SYRINGOMYELIA IN PREGNANCY

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Introduction: Syringomyelia is defined as the development of a fluid-filled cavity or syrinx within the spinal cord at any level. It can cause any spectrum of neurological deficits from mild to moderate depend on the size and involving segment of the spinal

cord. There are several causes for the development of Syringomyelia such as trauma, inflammation etc., but the idiopathic form is very rare and very difficult to manage during pregnancy.

Case report: A 23 years old mother of two children, known patient of idiopathic Syringomyelia (IS) referred from rehabilitation hospital to CNTH for shared care of pregnancy. She was at her 13 weeks of gestation. This is an unwanted and unplanned pregnancy. She had a history of sudden lower limb paraplegia in 2016. On examination she had motor as well as sensory impairment. Her MRI spine reveals a fluid filled cavity at her C2-C7 level of cervical spinal cord. Communicating Syringomyelia was diagnosed and surgery was planned. She underwent laminectomy at cervical spinal level C2-C7, after that she was improved her symptoms and her motor, sensory functions improved. Then she lost the follow up.

Two years later, she was brought to rehabilitation hospital again with the history of sudden onset of severe motor and sensory dysfunction with feco-urinary incontinence. Repeat MRI reveals syringomyelia at the level of C4 and C5. Repeat surgery was planned and sample sent for histopathology but report reveals inconclusive results and pathologist suspects low grade neoplasm or the post-surgical inflammatory reaction. No symptoms improvement was noted after surgery. Physiotherapy was arranged.

At her 23 weeks of POA, impaired glucose tolerance was diagnosed and put her on medical nutrition therapy. Symmetrical IUGR was diagnosed at her POA of 31 weeks and early delivery was planned. At her 37+4 weeks of POA baby boy was delivered by elective caesarian section under general anesthesia. Baby was taken to PBU care because of severe IUGR.

Discussion: Still the exact etiology for IS is not clear. Various theories such as the cerebellar piston theory, increased spinal subarachnoid pressure, intramedullary pulse pressure theory are somewhat can describe the pathophysiology. For most patients with idiopathic syringomyelia, conservative management may work well.

Continued progression of symptoms, could be approached using decompressive strategies depending on the level of pathology.

PREGNANCY OUTCOME IN PATIENTS WITH LARGE YOLK SAC

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Introduction: The secondary yolk sac is the first extraembryonic structure that becomes sonographically visible within the gestational sac. During embryonic development, the yolk sac is the primary route of exchange between the embryo and the mother. The yolk sac also provides nutritional, immunologic, metabolic, endocrine and hematopoietic functions until the placental circulation is established.

The yolk sac is one of the most important conceptional structures evaluated sonographically in the first trimester. At present, the most important benefit of sonographic evaluation of the yolk

sac is confirmation of an intrauterine pregnancy. It has been hypothesized that sonographic features related to the shape, size, and internal structure of the yolk sac can be associated with the gestational outcome. An abnormality in the sonographic appearance of a yolk sac can predict subsequent embryonic death or abnormalities. Therefore, the accurate recognition of normal and abnormal sonographic findings concerning the yolk sac can be used to anticipate the course of pregnancy.

Objective: To determine whether ultrasound findings of yolk sac size and morphology are valuable in relation to pregnancy outcome.

Method: 10 patients with yolk sac more than 6mm were detected through transvaginal ultrasound examination during the period of July 2017 to May 2018. They were followed up with high risk fetomaternal assessment and serial ultrasound scans until their delivery.

Results: From the 10 patients, 4 have completed their pregnancy. 2 patients ended up with a miscarriage and 4 are being followed up.

Out of the 4 patients who completed the pregnancy, 3 had low birth weight babies (less than 10th centile for period of gestation). Their pregnancies were complicated by PIH, significant IUGR and antenatal fetal distress.

Conclusion: Yolk sac is one of the early parameters in fetal development which can be measured accurately with advance fetal ultrasonography. Several authors have postulated bad fetal outcome associated with larger yolk sacs and irregular yolk sacs during embryonic life. More data and research are necessary to predict cut off points to categorise the pregnancies with large yolk sacs as high risk pregnancies in order to provide high risk assessment.

A CASE REPORT ON NON CIRRHOTIC PORTAL HYPERTENSION WITH GASTROPATHY COMPLICATING PREGNANCY

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Introduction: Portal hypertension is characterized by an increase in portal pressure (>10mmHg) due to Cirrhosis or non-cirrhotic diseases of liver. When compared cirrhotic type, non-cirrhotic type associated with spontaneous pregnancy as the liver function is preserved in latter. The physiological changes, in adaptation to the pregnancy and fetal needs, worsen the portal hypertension resulting in potentially life-threatening variceal bleeding and other complications. Therefore the management requires a multispecialty team in a tertiary care center with facilities for gastro intestinal endoscopy, portal vascular surgery, and perinatal and adult intensive care unit.

Case report: She is 28 yr old primi who is married for one year and diagnosed to have portal hypertension and oesophageal varices since 8 years of age. In the past she has undergone thrombophilia, infection and autoimmune screening including Direct Coombs' test, ANA, Acidified serum lysis test (HAM test) Prothrombin 20210G>A mutation, Factor V 1691G>A Leiden mutation, Antiphospholipid antibody screening, all of which were negative.

This was a planned pregnancy. She was normotensive and normoglycaemic throughout. During second trimester she had dengue fever and two episodes of hematemesis which was managed conservatively. USS revealed splenomegaly, Cavernous transformation of portal vein with splenic hilar varices, which are likely sequelae of portal vein thrombosis, mild dilatation of the portal vein with portal hypertension and there was no ascites. An Upper Gastro Intestinal Endoscopy was done, showed Grade 2 oesophageal varices but no evidence of portal hypertensive gastropathy. Fetal growth assessments were normal except Polyhydramnios. Other investigations including FBC, OGTT were normal. A multidisciplinary team meeting including Obstetrician, gastroenterologist, haematologist, Anaesthetist and neonatologist was held. She was negative for basal plasma homocysteine level, anti-thrombin assay, Flow cytometry for PNH, Protein C & S assays. Further decision was taken to offer elective caesarean section under spinal anaesthesia, as NVD may increase the risk of variceal bleeding due to Valsalva maneuver during labour.

Discussion: Pregnancy outcomes of Non-Cirrhotic Portal Hypertension (NCPH) are better when compared to cirrhotic portal hypertension. In NCPH common complication is upper gastrointestinal bleeding but ascites, splenomegaly, jaundice and fetal growth restriction may also occur. Prophylactic endoscopic variceal ligation, endoscopic sclerotherapy, portosystemic shunting can be done to reduce the risk of variceal bleeding. Our patient was optimally managed with good outcome by multidisciplinary inputs. Even though we opted for caesarean section, normal vaginal delivery can be offered with adequate analgesia and assisted second stage.

A CASE REPORT ON A PRIMI MOTHER WITH SECONDARY HYPOCORTISOLISM

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Introduction: Adrenal insufficiency (AI) could be primarily due to pathologies in the gland itself, secondary due to decreased production of ACTH from the pituitary or tertiary due to hypothalamic conditions. Secondary AI can occur due to postpartum pituitary necrosis, lymphocytic hypophysitis, intracranial or pituitary neoplasm. Adrenal disorders in pregnancy are relatively rare, yet can lead to significant maternal and fetal morbidity. Pregnancy may alter the manifestation of disease including signs and symptoms seen in adrenal disease. The feto-placental unit alters the maternal endocrine metabolism and hormonal feedback mechanisms.

Case report: Our patient was 27 year old who is married for 2 years, admitted to ward with excessive vomiting, nausea and mild per vaginal bleeding at 8 weeks of pregnancy. In 2015 she developed sleepiness, postural dizziness, and generalized body weakness. Examination revealed low blood pressure with buccal mucosa pigmentation. Plausible hormonal profile was performed and found to have low serum cortisol (4.9µg/dl (5- 25)), a subsequent short synacthen test was positive for secondary adrenal insufficiency. Her ACTH levels were at the lower limit (11.5ng/dl (10 - 60)). MRI brain revealed normal study including pituitary gland and ultrasound abdomen was normal. Since then she was on cortisol replacement in the form of hydrocortisone.

After the initial management for the hyperemesis and the threatened miscarriage a multidisciplinary team meeting consisting Obstetrician, endocrinologist, neonatologist was held regarding the future management. During this pregnancy she didn't have any adrenal crisis or features of excess corticosteroid. She was closely monitored in both endocrine and antenatal clinic. The doses of hydrocortisone were adjusted according to the period of gestation, symptoms, and blood cortisol level. Patient and the family were educated regarding the adrenal crisis, trigger factors and management. During pregnancy fetus had growth restriction with high resistant index in Doppler flow studies and therefore a caesarean section was offered at 37+ with IV hydrocortisone cover of 100mg. Post-partum period was uneventful and she was discharged with the follow up plan in endocrine clinic.

Discussion: Even though it is rare in pregnancy, secondary adrenal insufficiency may pose specific challenges during pregnancy. Recent studies showed no association between maternal corticosteroid use and cleft lip and palate in the offspring. Our patient had hypocortisolism secondary to isolated ACTH deficiency and was optimally managed with good outcomes at the multidisciplinary settings.

A CASE REPORT ON PRIMARY HYPOPARATHYROIDISM COMPLICATING PREGNANCY

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Introduction: Hypoparathyroidism is an endocrine disorder rarely encountered during pregnancy. It may be due to idiopathic, genetic, autoimmune and secondary to thyroidectomy. Physiological changes in calcium metabolism occur during pregnancy and lactation in hypoparathyroid patients poses a management challenge for the clinicians. Inadequate management of hypoparathyroidism during pregnancy can result in miscarriage stillbirth, preterm labour, and acute neonatal morbidity such as respiratory distress syndrome and neonate can develop secondary hyperparathyroidism which in turn can cause skeletal demineralization, sub periosteal bone resorption and osteitis fibrosa cystica. Over-treatment with calcium can lead to hypercalciuria, nephrolithiasis, renal impairment and neonatal seizures. Therefore management requires multidisciplinary inputs from obstetrician, endocrinologist and neonatologist to ensure optimal outcomes.

Case report: 27 years old primi mother, married for 11 months presented at a POA of 7+4 with vaginal spotting for 2 days. She was diagnosed with hypocalcemia and hypoparathyroidism at the age of 8 years following investigation for childhood seizures. She was on a course of antiepileptics for 2 years and was on calcitriol and calcium supplementation. She underwent bilateral Phacoemulsification with Intraocular Lens Implantation eyes due to cataracts. Underlying cause for hypoparathyroidism had not been investigated. Current pregnancy was a planned pregnancy with pre pregnancy counselling. On admission she had no features suggestive of hypocalcaemia such as perioral numbness, tingling sensations in the fingers and toes, muscle cramps, wheezing or dysphagia. Her examination findings were normal and she found to have impaired glucose tolerance so she was referred to endocrinologist, she was started on metformin

and her other investigations were normal. As fetal growth restriction is one of the complications of hypoparathyroidism she was also started on aspirin. During pregnancy she was continue to treated with calcitriol and calcium supplement and the dose adjustment made according to the serum ionized calcium level. She maintained normocalcaemia at an average of 1.17 (1.12-1.23)mmol/l throughout the pregnancy without any complications. Induction with prostaglandin was tried at the 38 weeks of pregnancy but failed and ended up in caesarean section and postpartum was uneventful.

Discussion: In our patient although clinically it looks idiopathic hypoparathyroidism an investigation planned was given to exclude other causes since these were not done in past. PTH is normally responsible for maintaining calcium homeostasis. Reduced level of hormone in conjunction with the increased calcium demands during pregnancy can result in hypocalcaemia and fetomaternal complications if inadequately supplemented and multidisciplinary management ensure optimal outcomes.

A CASE REPORT ON RECURRENT FIBROMATOSIS OF LEFT LOWER LIMB COMPLICATING PREGNANCY

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Introduction: Fibromatoses are benign tumours that affect connective tissues and grow rapidly in any part of the body, but do not metastasize. The neoplasm is composed of spindle (fibrocyte-like) cells and can also develop from muscles, fasciae and aponeuroses. The deep fibromatoses exhibit locally aggressive behaviour compared to superficial ones. The recurrence rate is 24 -77% after surgery. Other treatment modalities include radiotherapy, systemic medical treatment, hormone therapy, anti-inflammatory drugs. Morbidity and mortality of the condition is usually due to local recurrence and side effects of treatment.

Case report: A 29 yr old primi mother presented at 8 weeks of gestation to antenatal clinic with a past history of recurrent fibromatosis. She was diagnosed in 2005 when she developed painful lumps on the left side buttock and back of the thigh for 3 months duration. She underwent wide local excision (WLE) and the histopathology report showed low grade fibromyxoid sarcoma widely infiltrating gluteal muscle. Thereafter she was investigated at National Cancer institute with a CT scan which showed a local infiltration. Re-exploration was done and histopathology results were compatible with fibromatosis and lesion extending to all resection margins. She was treated with 20 cycles of radiotherapy and followed up at 6 monthly intervals. Since then she had undergone about 08 WLE due to recurrent fibromatosis. The last surgery histopathology result showed a low grade fibro sarcoma with free resection margins. Immunohistochemistry showed tumor cells strongly positive for vimentin, SMA and negative for Desmin and S 100, Ki 67 index 1%, consistent with recurrent fibromatosis. CT scan pelvis abdomen and chest was negative for metastasis. She also underwent a breast lump excision at 2014 which was found to be a fibro adenoma in histology and underwent a colonoscopy for pain in defecation in 2016 which was negative. A multidisciplinary team meeting was done regarding the future

management of pregnancy; a conservative approach with close follow up was decided. She had difficulty in using squatting toilet, climbing stairs, sitting for prolonged period, flexing and abducting the left hip. Her antenatal period was uneventful and she delivered a healthy baby by elective Caesarean section. Postpartum period was uneventful.

Discussion: Recurrent fibromatosis is a non-metastatic locally infiltrating tumor with high recurrence rate. Histopathology may confuse with low grade fibrosarcoma. WLE is the primary mode of treatment. In our patient, pregnancy had no effect on the progression or recurrence.

A CASE REPORT OF SARCOIDOSIS COMPLICATING PREGNANCY

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Introduction: Sarcoidosis is a chronic condition that is commonly seen in women of reproductive age. Its prevalence of 10 to 20 per 100,000 population with lifetime risk of 0.85% among whites and 3-4 times more common in the black population. Lung is the commonly affected organ. Therefore, found incidentally on routine chest x-rays.

Case report: We report a case of pulmonary sarcoidosis in pregnancy which was found incidentally during routine medical checkup 6 months prior to conception. Routine Chest X ray revealed bilateral hilar shadows which were biopsied. Stage 1 pulmonary sarcoidosis were diagnosed with the radiographic findings. Lung function tests did not reveal obstructive or restrictive lung disease. No pulmonary hypertension. As she was asymptomatic, treatments were not started. Following conception routine follow ups did not reveal deterioration of her lung functions. Pregnancy continued with routine antenatal follow ups. Calcium supplementation was not offered as it may complicate the pregnancy. Growth of the fetus was average and healthy. Pregnancy terminated at 38 weeks by elective caesarean section. Post-partum period was uneventful and referred back to routine chest clinic for follow up.

Conclusion: This case report confirms that sarcoidosis in pregnancy is usually associated with good prognosis.

A CASE REPORT ON CHRONIC AUTOIMMUNE HEPATITIS COMPLICATING PREGNANCY

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Introduction: Chronic Autoimmune hepatitis (CAH) is an uncommon female predominant inflammatory condition of unknown aetiology. Autoantibodies directed against liver parenchyma leads to cirrhosis, hepatic failure and death. It is rare in pregnancy as it is associated with amenorrhea and reduced fertility. During pregnancy there is higher incidence of pre-eclampsia, obstetric cholestasis, premature delivery and increased caesarean section while pregnancy itself may worsen the liver disease.

Case report: 38 yr old mother of one child, diagnosed with CAH presented at 11 weeks of pregnancy with a threatened miscarriage. She was diagnosed at 13 yrs of age following investigation for jaundice. Liver biopsy revealed autoimmune hepatitis with active cirrhosis for which she was on steroids since childhood.

Her first pregnancy, following spontaneous conception was complicated with severe obstetric cholestasis leading to an emergency Caesarean section. Postpartum was uneventful. Her current pregnancy after 2 years was a planned pregnancy with pre conception counselling. Booking investigations including liver functions, fasting blood sugar were normal. During the second trimester she developed recurrent hypoglycemic episodes, and subsequently diagnosed with Gestational Diabetes. Second trimester full blood count revealed thrombocytopenia. A multidisciplinary team meeting including obstetrician, gastroenterologist, endocrinologist, neonatologist, consultant transfusion medicine and haematologist was conducted. She was started on metformin and continued on steroids for autoimmune hepatitis. Second trimester endoscopy revealed mild gastropathy with duodenitis with no varices. Fetal growth was normal. At 32 weeks she developed obstetric cholestasis with serum bile acid of 19.9 μ mol/L (upper limit 10). Despite treatment with Ursodeoxycholic acid (UDCA) serum bile acid rose to 35.7 μ mol/L following a drop to 8.6 μ mol/L. Therefore, UDCA was increased to maximum dose and delivered by elective Caesarean section with tubal resection at 36 weeks.

She developed primary postpartum haemorrhage of 800ml managed with balloon tamponade, vitamin K and ICU care. She was discharged on postpartum day 5 with follow up arranged with hepatologist for future management and possible liver transplantation.

Discussion: Our case was complicated with hypoglycemia, obstetric cholestasis, postpartum haemorrhage which are known to complicate CAH in pregnancy. Azathioprine though a treatment option for CAH is contraindicated in pregnancy. Therefore steroids form a suitable alternative. Management of pregnancy complicated with CAH is challenging requiring multidisciplinary input for optimal outcome.

A CASE REPORT OF ISOLATED CONGENITAL COMPLETE HEART BLOCK IN PREGNANCY

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Introduction: A complete heart block occurs due defects in the atrio-ventricular conduction system and is usually associated with structural cardiac anomalies and systemic diseases such as Systemic Lupus Erythematosus with positive anti La/ Ro auto antibodies. Rarely it can present in an otherwise healthy individual without any associations. In such instances, complete heart block remains undiscovered until adulthood and may, therefore, present during pregnancy. Concerns regarding haemodynamic changes during delivery and labour lead to temporary pacing in asymptomatic women.

Case report: 33 yr old in her second pregnancy, diagnosed with congenital complete heart block, presented at 10 weeks for routine booking visit. She was diagnosed at 1 year of age with isolated

congenital complete heart block following investigation for recurrent seizures. Since then she was mostly asymptomatic. Her first pregnancy was complicated by fetal growth restriction which required elective Caesarean section under spinal anaesthesia with temporary pacing peri-operatively. Pregnancy was otherwise uncomplicated. Postpartum period was uneventful. Her current pregnancy was a planned pregnancy and was on Aspirin prophylaxis. This pregnancy was complicated with pregnancy induced hypertension, gestational diabetes mellitus and hypothyroidism. The ECG showed sinus bradycardia at a rate of 41 beats per minute and 2 D echo showed mild mitral regurgitation and mild LV dilatation due to pregnancy changes and congenital heart block. Multidisciplinary team meeting with obstetrician, cardiac electrophysiologist, nephrologist, endocrinologist and anesthetist was conducted. Accordingly she was started on Metformin and thyroxine with close surveillance of blood pressure and heart rate. She was relatively asymptomatic throughout pregnancy and fetal growth was normal. A temporary pace maker was inserted with a set rate of 70/min prior to elective section at 38 weeks. Postpartum period was uneventful and she was started on ACE inhibitors postpartum. There were no Neonatal rhythm abnormalities. Pacemaker was removed postpartum day 5 and she subsequently underwent permanent pacemaker placement after 2 months post-partum. Repeat 2 D echo was normal.

Discussion: Isolated congenital complete heart block is a rare finding in pregnancy. In an asymptomatic pregnant woman with otherwise structurally normal heart, requirement of pacing is debatable. Few studies and reported cases suggest pacing is not always required. Our patient was managed with multidisciplinary input with good maternal and neonatal outcome.

ABDOMINAL DYSTOCIA DUE TO POLYCYSTIC KIDNEY DISEASE

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Introduction: Bilateral multicystic kidney is not uncommon ultrasound finding during fetal anomaly scans. Autosomal recessive kidney disease is a one differential diagnosis with poor prognosis. Multidisciplinary input is required for diagnosis and management of the condition. Abdominal dystocia is a known rare complication of this anomaly.

Case: A 33 years old, mother in her 2nd pregnancy with 1st pregnancy is a neonatal death in day 2 due to polycystic kidney disease. Pathological postmortem has revealed autosomal recessive kidney disease.

This was a planned pregnancy. Anomaly scan at 21 weeks has revealed enlarged, homogeneously hyperechogenic kidneys with the absence of corticomedullary differentiation, difficulty in

identifying fetal bladder and oligohydroamnios. She was referred to the genetist and couple was counselled regarding the poor prognosis.

She received routine antenatal care. She was diagnosed with gestational diabetes at 28 weeks and on medical nutritional therapy.

She was admitted at 37 weeks with reduced fetal movements. The ultrasound scan revealed absent liquor with extended breech and fetal weight of 3.4 kg. She was allowed to progress.

She went into established labour after 2 days and had an intrauterine death at cervical dilation of 9 cm. Her labour was augmented but there was a poor progress in 2nd stage.

Intrapartum abdominal ultrasound was performed. Fetal kidneys were above the pelvic brim causing abdominal dystocia. EM-LSCS was done.

As tissue genetic studies not available in Sri Lanka and fetal blood cannot be used as baby expired, it was decided to conduct parental genetic studies later if needed after pathological post mortem.

Pathological post mortem was done. Mother was counselled and discharged after 2 days of LSCS.

Post mortem report revealed no other abnormalities but the kidneys were enlarged, each measuring 11 x 8 x 4 cm. The cut surface showed spongy appearance with poor corticomedullary differentiation. There were multiple tiny cysts with some at right angles to the cortical surface. Microscopy of both kidneys showed numerous cysts lined by a single layer of low cuboidal epithelial cells with thick peritubular mesenchyme. The glomeruli appeared normal. Liver showed normal histology. The gross and microscopic features were in favor of ARPKD.

FBS after 6 months was 97mg/dL and she was discharged from medical clinic with advices for early booking in next pregnancy.

Recommendation: Genetic testing has a place in diagnosis. Sequence analysis of PKHD1 is performed first and followed by gene-targeted deletion/duplication analysis if only one or no variants found. So even though the first test is negative then exome sequencing and genome sequence should be completed to get the genetic diagnosis.

So worldwide expert opinion been use following diagnostic criteria of ARPKD which was modified from Zerres. In our case we had ultrasound findings and postmortem finding of the previous sibling which was cost effective and noninvasive

All pregnancies are associated with risk of fetal anomaly 2%. MuPre-natal detection is improving in Sri Lankan setting. But termination of pregnancy is limited only in case of threat to maternal life. Even though the diagnosis has increased, pregnancy is continued until full maturity and follow natural course. This has added psychological and physical morbidity to mother and family.

A CASE REPORT OF ACRODERMATITIS ENTEROPATHICA IN PREGNANCY

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Background: Acrodermatitis enteropathica is a rare Autosomal Recessive (AR) form of metabolic disorder, results Zinc (Zn) deficiency, characterized by periorificial and acral dermatitis, alopecia, severe diarrhea, opportunistic infections (candidiasis) and bacterial infections.

Genetics is due to mutation of SLC39A4 gene located on chromosome 8q24.3 which encodes a transmembrane protein that is part of the Zinc/Iron regulated transporter-like protein (ZIP4) need for zinc absorption in the enterocytes in the duodenum and jejunum. Affected individuals have reduced ability to absorb zinc from diet and absence of binding ligand need to transport zinc may further contribute to zinc malabsorption. The features of the disease is commonly manifest when the infant is weaned from breast milk. Zinc is very important as it is involved in the function of approximately 100 enzymes in the body. Diagnosis includes plasma zinc level and histology of skin biopsy. This may be fatal without proper treatment and no cure in this condition and treatment include dietary zinc supplementation and zinc treatment.

Although much data is not available in literature, during pregnancy condition may be exacerbates in some women and it can cause several foetal adverse outcomes.

Case: 26 year old G3P2 woman from estate sector, diagnosed as acrodermatitis enteropathica at the age of 6 years. Latest serum zinc level was 24.6mcg/dl. During childhood she was on zinc containing syrup and later changed to zinc sulphate tablets. She was not on proper follow up and not on continuous treatment but currently on zinc sulphate tablets. Her husband has same ethnic origin but no consanguinity. Her first pregnancy was a first trimester complete miscarriage. She has one 3 year old son, was delivered vaginally following uncomplicated antenatal period, birth weight of 2.68kg. Child has no clinical features of the disease.

She was referred from field antenatal clinic at 10 weeks of period of gestation. All antenatal investigations were normal and dating scan was done and expected date of delivery was confirmed. She was referred to the dermatologist for expert opinion regarding her skin condition. Decision was to stop zinc sulfate as she had no acute lesions and continue dietary zinc supplementation. She was followed-up at both antenatal and dermatology clinics and foetal growth was optimal. Healthy baby boy was born vaginally at (39+5) weeks of gestation with a birth weight of 2.84kg. Following delivery zinc sulphate was restarted.

Discussion: Acrodermatitis enteropathica in pregnancy cause zinc deficiency and can increase risk of foetal growth restriction, miscarriages. There are some case reports of foetal neural tube defects, pre term delivery and still births. Zinc sulfate is a FDA category C drug and it is better to stop in pregnancy if serum zinc level is in desirable level and no active lesions. Careful evaluation of possible complications and close monitoring is important for better outcome.

CONGENITAL PYROPOIKILOCYTOSIS AND HYPERTENSION DURING PREGNANCY

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Introduction: Hereditary pyropoikilocytosis (HPP) is a severe, relatively rare, autosomal recessive hemolytic anemia, associated with instability of red cell membrane resulting abnormal red cell morphology including microspherocytosis, aniso-poikilocytosis, schistocytosis and a moderate degree of elliptocytosis. Assembly of the red cell skeleton is abnormal in these patients due to a result of one or more inherited defects in the spectrin molecule

Case Report: A 25-year-old pregnant lady, admitted to the ward at 24 weeks of gestation due to high blood pressure detected at antenatal clinic. This is her second pregnancy previous baby was delivered by caesarean section. Her blood group was O positive. She is a known patient with congenital pyropoikilocytosis and on follow up. On admission her blood pressure was 160/100mmHg with no PET symptoms. On examination Her reflexes were exaggerated and clonus was absent. Her urine albumin was negative, PET screening was sent and found to have normal. Methyldopa 250mg 8 hourly added to her drug regime and subsequently blood pressure control was achieved throughout her pregnancy. Her hemoglobin was found to be low and blood picture was sent and found to have hypochromic microcytic red cells with anisopoikilocytosis, which was compatible with congenital pyropoikilocytosis. She was transfused with 2 packs of blood and started on double dose iron treatment after hematology team opinion. She was followed up at antenatal clinic and her blood pressure and Hb were checked regularly. At 38 weeks she delivered a baby by elective caesarean section.

Discussion: Hereditary pyropoikilocytosis is mostly asymptomatic, rarely may present as hemolytic anemia. Therefore their diagnosis is most of the time incidental. They experience marked hemolysis and anemia in their early life and then improve gradually, evolving into typical hemolytic hereditary elliptocytosis in later life. In this case she had anaemia at early pregnancy but it improved after blood transfusion and there were no deterioration of hemoglobin level thereafter. She did not developed hemolysis and her hypertension was well controlled during her antenatal period.

A CASE SERIES OF DENGUE HEMORRHAGIC FEVER IN PREGNANCY

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Dengue fever in pregnancy has shown to affect the both the mother and the fetus, particularly with the uncommon but dangerous complication of dengue hemorrhagic fever (DHF). We report 4 cases of DHF in pregnancy. In all the cases labour was precipitated by the dengue infection. Two resulted in intra uterine fetal demise (IUFD) and two developed neonatal dengue infections with one leading to a neonatal death (NND).

A 29 year old primigravida who developed DHF at gestation of 36 weeks and 4 days, on the fifth day of the illness went into the critical phase. Cardiotocography (CTG) showed reduced

variability and absence of accelerations during this period. Moderate elevation of liver transaminases was observed. Platelets dropped to $12 \times 10^9/L$ but she recovered and was discharged on day 9. CTG taken before discharged was normal. Next day the patient was admitted in labour and delivered a fresh still birth shortly afterwards. Post mortem examination (PM) showed a morphologically normal adequately grown fetus with features suggestive of intra uterine hypoxia.

The second case of IUFD was a 20 year old primigravida who developed DHF at a gestation of 32 weeks and 1 day. On day 3 critical phase intervened and IUFD occurred. The fetus was delivered vaginally the next day, at a platelet count of $6 \times 10^9/L$ and developed post-partum hemorrhage (PPH). Her condition got complicated with dengue hepatitis with elevated AST to 6644 IU/L, ALT 2011 IU/L, LDH 6355 U/L, INR 2.1, hypoglycemia, hyperbilirubinaemia, acute liver failure and stage 2 hepatic encephalopathy. PM suggested intra uterine hypoxia and chorionitis of the placenta.

Neonatal dengue infection occurred in a setting where the mother developed DHF at a gestation of 37 weeks and 3 days and baby delivered on 38 weeks and one day. Mother developed ventricular bigemini and PPH. NS1 antigen was positive on the third day of the neonate, but did not develop overt dengue infection.

NND occurred in a 19 year old primigravida who developed DHF at 36 weeks, delivered in the critical phase with a platelet count of $5 \times 10^9/L$ at a gestation of 36 weeks and 4 days and developed PPH. Baby developed thrombocytopenia and both dengue Ig G and Ig M were positive on day 6. Baby died of an expanding intracranial hemorrhage on day 7.

The emphasis in managing DHF is on the mother, but it could have significant fetal and neonatal effects as well.

EXTREME CASE OF OBSTETRIC CHOLESTASIS PRESENTING AT EARLY SECOND TRIMESTER

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Obstetric cholestasis is a multifactorial disease which affects 0.8 to 1.46% of pregnancies in south Asia. It is linked to the impairment of conjugation and excretion of bile acids due to the elevated levels of estrogen in genetically susceptible individuals. Usual presentation is in third trimester where the estrogen level is maximum. Here we report a case of obstetric cholestasis presenting in early second trimester.

A 35 year old primi gravida presented at a gestation of 18 weeks with a generalized pruritus more intense over palms and soles gradually worsening over 2 weeks duration. There was neither any history recent infection nor past history of liver disease. Clinical examination was normal except for scratch marks. Serum bile acids were elevated to $37 \mu\text{mol/L}$, AST 58 IU/L, ALT 67 IU/L total bilirubin $4 \mu\text{mol/L}$, GGT 51 IU/L, and INR 0.9. Ultrasound scanning of the abdomen showed normal liver and hepatobiliary tree. Serological testing for Hepatitis A, B, C, CMV, EBV, were negative.

She was started on ursodeoxycholic acid (UDCA) 300 mg/bd (Udihep 300®) dose initially and bile acids came down to 17µmol in 1 weeks' time. Pruritus went into a remission but it never settled completely until the delivery. Along with the progression of the pregnancy her pruritus got aggravated necessitating UDCA dose increment to 600mg tds. She developed evidence of fat malabsorption with steatorrhea and increase in INR to 1.8. She was supplemented with oral vitamin K 10 mg/daily. Patient developed depression due to troublesome pruritus and insomnia irrespective of UDCA, chlorpheniramine 4 mg/nocte, fexofenadine 60mg/bd, topical ointments such as aqueous cream with menthol and calamine lotion. Psychiatric support was given counselling and fluoxetine 20mg/mane.

Fetus showed growth restriction and reduced AFL. Considering both the fetal and maternal conditions labour was induced at a gestation of 37 weeks. Fetus showed tachycardia of 170bpm during the latter part of the first stage and developed sudden bradycardia in second stage which necessitated urgent delivery. Live baby weighing 2.4 kg was delivered by mid cavity forceps. Both the mother and the baby had an unremarkable post-partum period. Pruritus improved within 48 hours. At 6 weeks review all laboratory investigations were normal and retrospective diagnosis of obstetric cholestasis was made.

This is an extreme case of obstetric cholestasis and she may have a strong genetic predisposition. Long duration may have affected the placental circulation leading to fetal growth restriction and may precipitate fetal cardiac rhythm abnormalities.

COMPARISON OF ULTRASONOGRAPHIC ESTIMATED FETAL WEIGHT AND ACTUAL BIRTHWEIGHT OF BABIES BORN AT THE WARD 2A, PROVINCIAL GENERAL HOSPITAL, RATHNAPURA

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Introduction and Objectives: Ultrasonographic estimation of the fetal weight is a commonly available, relatively inexpensive technique used to determine the weight of the baby, which is strongly associated with adverse perinatal outcomes.

Our main objective was to determine the accuracy of measuring estimated fetal weights (EFW) by senior house officers, by comparing them with actual birth weights.

Methods: A prospective study was carried out by selecting 381 term singleton pregnancies excluding pregnancies complicated by fetal diseases and those who delivered within seven days of the ultrasound date delivered at Provincial General Hospital, Rathnapura (PGHR), between February 2017 and August 2017.

The EFW was measured by 03 senior house officers (SHO) using trans abdominal ultrasound with Hadlock formula. Actual birthweight (ABWT) was recorded. Age, parity and period of gestation at EFW assessment and birth weight were obtained from patients' records.

Results: The mean age of the patients was 28 years. The gravidity ranged from 1-7 and the parity ranged from zero to

five with 53.5% of the patients being nulliparous.

Mean estimated and actual birth weights were 2769±505g and 2804±561g respectively. The weight difference was calculated as EFW - ABWT. There was an average over-estimation of 35 grams. However, the difference between mean EFW and mean BWT was not significant (p=0.056) based on a two-sided paired test.

Bland and Altman plot showed strong agreement between EFWs and ABWs because it was only in very few instances that differences between the two fell outside the 95% limit of agreement.

The difference between mean EFW and mean BWT according to each senior house officer was not significant. (P=0.199, P=0.058 and P=0.056).

Conclusion: EFW using ultrasound appears to be precise enough for clinical purposes. The training and experience provided at our unit for the senior house officers to perform EFW is adequate.

ACEPHALIC ACARDIAC MONSTER – A RARE CASE REPORT

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Introduction: Acardia represents one of the rarest congenital anomalies. It is characterized by the absence of a normal functioning heart. Acardius is commonly associated with acephaly and failure of development of most of the thoracic organs and upper limbs. Acardiac has been reported only as an asymmetrical product of a monochorial multiple pregnancy, in which co-twin usually appears to be normal. Acardiac thrives as a parasite by getting blood supply from the donor hydropic twin. Incidence is 1 in 100 monozygous twin pairs or one in 38,000 births.

Case presentation: 39 year old house wife, with her first ongoing pregnancy, admitted to the ward for elective cesarean section at the POA of 37 weeks. She is previously healthy, at her POA of 13 weeks she underwent dating scan, date confirmed and single active fetus. Pregnancy was uncomplicated until 36 weeks of POA, underwent ultrasound scan and found to have a mass lesion inside the amniotic cavity and decided to deliver at 37 weeks. Elective cesarean section done, delivered MCDA twin with one active baby girl with birth weight of 2.2kg, an acardiac Acephalic twin without head, no features of life and malformed lower limbs. A small cord like structure connected to the placenta from the mass lesion. There were no placental or uterine anomalies seen. X-ray of the acardius shows no skull bone, having vertebral column, bilateral pelvic bones, bilateral femur, partially developed tibia, few meta-tarsal bones and few phalanxes.

Discussion: Acardiac twin is a rare malformation resulting from extensive anastomoses between the placental vessels, with reversed flow TRAPS sequence in the recipient twin, causing hypoxia particularly to the cephalic pole leading to acardia acephaly and abnormalities of the upper body. The pump twin is at high risk, due to the hazards of congestive heart failure from

a prolonged high output state plus the risk of prematurity. The mortality rate is reported to be between 50% and 70% for the pump twin. The burden of providing circulation for two fetuses can result in cardiac hypertrophy, congestive failure, hydrops fetalis, or premature birth of the normal fetus, but fortunately in our case the normal twin is healthy and grows up to full term. Management aims at interrupting the blood flow from the pump twin to the acardiac twin without harming the normal twin. The in-utero treatment modalities that have been attempted include medical therapies, selective delivery of the acardiac twin in the 2nd trimester followed by prolongation of pregnancy for the normal twin, and umbilical cord blockage.

In this case the twin pregnancy not identified in first trimester and mid trimester scan was not performed and in third trimester scan acardius was diagnosed. Until 36 week the normal twin did not has any abnormality with acceptable growth. Even if we diagnose it early, the limitation of facility for inutero management influences the management and delivery plan.

CASE OF SYSTEMIC VASCULITIS IN PREGNANCY IMPROVING FOLLOWING THE DELIVERY

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Vasculitis in pregnancy is a rare condition. Outcome of pregnancy has shown to be better with vasculitis first presenting during the pregnancy in contrast to preexisting vasculitis. We report a case of systemic vasculitis first presenting in pregnancy as a pyrexia of unknown origin.

A 32 year old, previously well primi gravida presented at a gestation of 28 weeks and 4 days with a history of fever for 3 days. On day five patient developed a non-blanching macular papular vasculitic type rash over bilateral lower limbs which became more coalescent over the time. Urine Albumin was 3 + with 60-70 red cells in full report and CRP was 117mg/dl. Ultrasound scanning suggested left sided pyelonephritis. FBC, AST, ALT, ECG, and 2D Echocardiogram were normal. She was commenced on IV antibiotics. On day 8, patient developed Type I respiratory failure with CXR PA showing left sided lung consolidation. Considering the possibility of secondary vasculitis following atypical pneumonia she was treated with Meropenem, Ceftazidime, Teicoplanin, Clarithromycin, Tamiflu, thromboprophylaxis and respiratory support. CXR PA became normal in 48 hours. Procalcitonin was 0.01ng/ml. Skin biopsy confirmed small vessel vasculitis.

High Resolution Computed Tomography (HRCT) showed evidence of diffuse pulmonary hemorrhage but Broncho Alveolar Lavage (BAL) was inconclusive of pulmonary hemorrhage. As the patient deteriorated she was started on IV Methylprednisolone 1g/daily along with plasmapheresis on day 13. Fever settled and CRP became 9.2mg/dl, but the respiratory distress and proteinuria were persistent. Suspecting lung fibrosis termination of pregnancy was considered in view of commencing cyclophosphamide to prevent permanent lung and kidney injury. Serological testing of ANA, Rheumatoid factor, C3, C4, C-ANCA, P-ANCA, IgA, HIV, CMV, Mycoplasma, Rickettsia,

Melioidosis, Pneumocystis jiroveci Pneumonia (PJP) and pulmonary aspirate testing for PJP PCR, TB culture, Aspergillus, bacterial culture, fungal culture, influenza A and B, and CMV were negative.

On day 18, live baby weighing 1475g, was delivered by Cesarean section at a gestation of 31 weeks and 1 day. Patient improved drastically following the delivery. Plasmapheresis 6 cycles given. Oral high dose prednisolone was continued for one month and then tailed off over a period of two months. Patient became completely asymptomatic over few days, proteinuria settled in one months' time.

Multi organ involvement with lung, kidney and the skin suggests systemic vasculitis. The fact that all etiological identification investigations became negative and the drastic improvement following the delivery arise the suspicion of a pregnancy associated vasculitis, but needs further research.

Theme 7

Postpartum Care, Labour, Antenatal Care

A CASE REPORT: UNDIAGNOSED IDIOPATHIC THROMBOCYTOPENIC PURPURA (ITP) PATIENT PRESENTING WITH A POST-PARTUM HAEMORRHAGE

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Introduction: Post-partum haemorrhage (PPH) is a life threatening condition which could occur due to uterine atony, retained products, trauma or a coagulation defect. Among the coagulation defect which occur due to thrombocytopenia, ITP is a recognized disorder which commonly affect women in their reproductive age. ITP occurs in one or two of every 1,000 pregnancies. ITP is usually diagnosed before conception and treated with steroids to minimize its detrimental effects during labour. However, if it's not controlled, the reduced platelets can result in PPH.

Clinical description: A 32 year old lady in her 2nd pregnancy was admitted for confinement to our ward and she was induced with prostaglandins at 40 weeks +4 days. She went into labour the next day morning and delivered a baby boy at 11.15 a.m. She then developed a PPH despite no retaining products, hard uterus and no lacerations. A clotting profile with full blood count was sent immediately while resuscitating her with, fluids, uterotonics and blood. A condom catheter was attempted but as she continued to bleed a post-partum hysterectomy was done and hemostasis was achieved. Estimated blood loss was 2.25 liters and therefore total of 5 pints blood, 4 packs FFP and 8 packs of platelets were given. The total count revealed a low platelet count of 31×10^3 /ul. She was then sent to ICU where she continued to have a positive drain and the platelets continued to drop up to 11×10^3 /ul. All other investigations including Liver enzymes (ALT, AST), Serum bilirubin, LDH, White cell count were normal. The blood picture revealed, thrombocytopenia with large platelets suggestive of ITP. As ITP diagnosis was made by exclusion of other possible causes treatment was started with prednisolone 25mg/day and

IV Ig 0.4g/kg/day. The platelet counts then improved and patient was sent to ward after 3 days and discharged 5 days later with a platelet count of 104×10^3 /ul on steroids.

Discussion: If a full blood count which includes platelets was performed instead of only haemoglobin levels at any time during the pregnancy or beforehand, the thrombocytopenia would have been noticed and further blood picture would have been done which could aid in the diagnosis of ITP and treated accordingly anticipating PPH during labour.

Conclusion: A full blood count to be done as oppose to only Hb values at routine screening during pregnancy and if there is any suspicion, further investigations should be carried out.

A CASE REPORT OF BICORNUATE UTERUS WITH PREGNANCY

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Introduction: Development of female reproductive system is a complex process. Abnormal differentiation, migration, fusion and canalization of mullerian system result variety of congenital abnormalities in uterus and vagina. Prevalence of uterine anomalies depend on population and diagnostic methods. Bicornuate uterus is a unification defect of mullarian ducts and it represent 10-40% of uterine anomalies. In most of case this condition is asymptomatic. Commonest adverse pregnancy outcome of this condition are recurrent pregnancy loss, pre term birth and cervical incompetence. Reproductive outcomes can be improved by early diagnosis, necessary treatment and regular follow up. This is a case of pregnancy continued up to 36 weeks in a diagnosed woman with bicornuate uterus.

Case: A 30-year-old multigravida with previous history of two second trimester miscarriages at POA 14weeks and 17weeks referred to gynaecology clinic for management of secondary subfertility. Nothing abnormal found on clinical history and examination. Ultrasound scan revealed separated uterus with normal ovaries. Laparoscopy was planned after evaluation of sperm full report and ovulation. Patient was diagnosed with complete bicornuate uterus with single common cervix. Bilateral tubes were patent for dye and no anomaly observe in other organs. four months later patient presented with a 5 weeks of amenorrhea following 2 cycle of ovulation induction and intra uterine insemination. Intrauterine pregnancy was confirmed with single live fetus which located in left horn of uterus. At 10 weeks dating scan was performed and date confirmed. Cervical length was 30mm at 10 week of gestation. A prophylactic cervical cerclage was arranged at POA of 14 weeks. Patient was received daily vaginal progesterone supplement since 8 weeks of gestation. Patient was in ward from 35 weeks due to on and off abdominal pains. Cervical cerclage removed at 36 weeks due to increasing abdominal pain. Same day she was delivered baby girl with birth weight of 2.3kg. post partum period was uncomplicated. Patient discharge on 5th day of postpartum with her child.

Discussion: Defective lateral fusion of mullarian ducts give arise bicornuate uterus. It has two symmetrical cornua which

connect caudally with communication of endometrial cavity often at level of uterine isthmus. Pregnancies in bicornuate uterus are considered as high risk because it associated with certain complications like recurrent miscarriages, preterm delivery, malpresentation, uterine rupture and fetal deformities. Out of uterine anomalies, highest prevalence of cervical incompetence associated with bicornuate uterus. Prophylactic placement of cervical cerclage in selected patients has been reported to increase fetal outcomes. Limited space in uterine cavity may attribute to deformities in foetus as continuous pressure application to fetal parts and mal presentation. Uterine rupture during pregnancy is another possible complication since it has thin wall and inability to expand with advance pregnancy. Other than obstetric complication, failure of contraception with IUCD is another complication with bicornuate uterus.

Conclusion: Bicornuate uterus associated with adverse pregnancy outcome rather than subfertility. These adverse outcomes can be reduced with early detection, close follow up and applying appropriate managements. Surgical correction should be reserve for patients with recurrent preterm deliveries which are not respond to cervical cerclage.

INTRAPARTUM MANAGEMENT OF A PREGNANCY WITH GLANZMANN THROMBASTHENIA

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Introduction: Glanzmann thrombasthenia (GT) is a rare autosomal recessive bleeding disorder. Which is characterized by lack of platelet aggregation resulting bleeding manifestations. The clinical presentation may vary, some patients may have only minimal bruising while others have frequent, severe and potentially fatal bleeding. As this does not affect the fertility, pregnancy is not uncommon, but an association is rare. Pregnancy and delivery have been associated with a high risk of severe hemorrhage.

Case report: A 21 year old primi, transferred from local hospital with per vaginal bleeding at 37 weeks of gestation, who is a known patient with Glanzmann thrombosthenia. It was a painless bleeding with clots. Her blood group was O positive. On examination, she was not pale and parameters of cardiovascular system were normal. Abdomen was soft and non-tender. Speculum examination showed fresh bleeding through cervix. Digital vaginal examination was not performed.

Blood investigations were requested and HDU care was given. Her hemoglobin level was 10.8g/dl and platelet count was 213 000/ul. WBC, renal function test, liver function test and INR/APTT were normal. CTG done and it was normal.

Following day, Due to the pains, she was sent to the labour room. Labor was induced with ARM and augmented with IV syntonin. MDT including Transfusion physician, Hematology and neonatology team were involved in the management. After 6

hours, she delivered a baby boy. Active management of third stage was performed. IV syntocinon 5 units bolus followed by 10-units/hour infusion given for next four hours. IV tranexamic acid 1g, misoprostol 800ug per rectal inserted to prevent bleeding. Intrauterine balloon catheter also inserted to stop bleeding. 3 packs of platelet were transfused and IV tranexamic acid was changed into oral and continued for next five days.

Discussion: Glanzmann thrombasthenia is characterized by a prolonged bleeding time and a severe hemorrhagic mucocutaneous diathesis. Routine cesarean sections are not indicated but episiotomy and instrumental delivery should be avoided. Regional and epidural anesthesia are contraindicated. To prevent the platelet immunization, platelet transfusion should be limited and recombinant factor VII a is an alternative. Plasmapheresis followed by platelet transfusions have also been successfully used for prevention and treatment of intra and postpartum bleeding in cases of Glanzmann's disease as this reduces the number of antiplatelet antibodies making transfusions effective.

INTRAPARTUM MANAGEMENT DURING DENGUE HEMORRHAGIC FEVER – A CASE SERIES

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Introduction: Dengue is a common disease in Sri Lanka. There are 3 phases such as febrile, critical and recovery phase. Management of dengue in pregnancy has become immense challenge. Furthermore, if patient goes into labour during the critical phase management become more challenging.

Details of cases: There are four cases we have managed labour during the critical phase. Out of four, three were hospitalized early in febrile phase and one admitted at critical phase. Critical phase diagnosed according to standard criteria by using ultrasound scan (USS) of the abdomen to confirm the presence of fluid leaking. All the investigations were done during the period to monitor the disease progression, including full blood count, renal function, liver function and USS. Out of four, two went through spontaneous onset of labour (SOL) during the critical phase and one patient during recovery phase. In those three, two were preterm (34 weeks and 35 weeks respectively) and other one was at term (38 weeks). They were allowed to normal labour and during the active phase of labour, close monitoring was carried out at labour room for fetal and maternal wellbeing. Birth weights of all babies were more than 2 kilograms. All were admitted to the special baby care unit (SBCU). One baby died due to massive intracranial haemorrhage due to low platelet count, probably due to transplacental transmission of the disease. Second baby died due to a congenital anomaly. Patient, who delivered term baby was not develop any neonatal problems. Out of four one was delivered by caesarean section at 33 weeks of period of gestation. Patient developed per vaginal bleeding. It was decided to do caesarean section on suspicion of placental abruption. Caesarean was done under general anesthesia following platelet transfusion due to low platelets count. Mother sent to intensive care unit and baby sent to SBCU. However, mother passed away during post-operative period and baby

was discharged in good health. All the cases were managed by multi-disciplinary team.

Discussion: Considering four cases main intervention of the management was the close monitoring and optimizing the patient. One baby died due to a congenital anomaly, which was diagnosed antenatally. Two babies were discharged. Only one baby died due to possible complication of maternal dengue.

Conclusion: Vaginal delivery appears to be the safest option during the critical phase. There is possibility of trans-placental transmission of Dengue fever.

Keywords: dengue haemorrhagic fever, labour

CLINICAL AUDIT ON CORRECTION OF ESTIMATED DUE DATE ACCORDING TO ANTENATAL ULTRASOUND SCAN AT BOOKING VISIT

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Objectives: This audit is to determine whether correction of estimated due date (EDD) is practiced in professorial unit of teaching hospital Peradeniya, according to the guideline of American college of obstetrics and gynecology and NICE.

Methodology: This audit was designed as a retrospective study, covering dating antenatal scans in professorial gynecology & obstetrics unit of Peradeniya in two weeks among 200 pregnant women, who got admitted to antenatal ward. Data was gathered retrospectively from their antenatal records.

Result: Among 200 pregnant women 61% (n=122) of dating scans were done in optimal dating time period (in between 10-13 +6 weeks NICE). 15% (n=30) of dating scan were pre-dating scans (<10 weeks). 24% (n=48) of scans were post-dating (>14 weeks). 41.7% (n=20) of post-dating pregnancies were in 15 to 18 weeks and 25% (n=12), 12.5% (n=6) & 21% (n=10) of post-dating were in between 19 to 22 weeks, 23 to 26 weeks and 27-30 weeks respectively. Most of dating scans (60% [n=120]) were done by obstetricians. 34% (n=68) of dating scans were done by registrars. Rest of dating scans (6% [n=12]) were done by senior house officers.

90% estimated due dates were calculated according to guideline, given by the American collage of obstetrician and gynecologist (committee opinion). 10% were wrongly calculated. 8% of pregnancies were sub-optimally dated. Rest of dating were done before 22 weeks of gestation.

Conclusion: It's important to do dating scan in optimal time period of gestation for correction of estimated due date (EDD). Proper dating and correction of EDD prevent pre-mature, post-mature deliveries and misdiagnosis of fetal growth restrictions and fetal macrosomia. So all medical officers, in obstetrics units, should be trained on obstetrics scans and should be updated on current practices. It's helpful to reduce incorrect dating related neonatal morbidity and mortality.

IMPLEMENTATION OF REVISED ANTENATAL GUIDELINES AT THE COMMUNITY LEVEL AND THE FIRST LEVEL HEALTH CARE FACILITIES IN THE MATARA DISTRICT

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Introduction and objectives: Antenatal care according to standard guidelines provides the base for a better outcome of the pregnancy. Present study aims to assessing the implementation of revised antenatal care guidelines in the Matara district.

Methodology: A descriptive cross sectional study was carried out among pregnant mothers who received antenatal care from health care workers of Matara district and admitted to delivery at major hospitals in Matara district. A sample of 403 mothers was selected proportionate to the number of deliveries in each selected hospital during previous year. All the pregnant mothers registered in the admission book of the obstetric wards from the date of data collection were recruited for the study until the allocated sample size was achieved in each hospital. Interviewer administered questionnaire and checklist was used as study instruments.

Results: The participation rate for the study was 97% and majority of pregnant mothers (81.6%) has sought care from the MOH system. Health care workers adhered to most of the procedures given in the revised antenatal care guidelines. However, some service areas that were identified to be improved. Six percent of pregnant mothers were not visited by PHM during the pregnancy. Heart examination in all three trimesters by a medical officer was done only in 39.9% mothers. It was revealed 10.5% of pregnant mothers and 48.6% of their husbands never attended to antenatal sessions conducted by public health staff. Majority of pregnant mothers (85.9%) were educated on family planning but only 47.3% of pregnant mothers decided the family planning method at the time of study.

At the same time poor documentation was identified in pregnancy records; expected family planning method (14.6%), plan for delivery (36.8%), maintaining of symphysis-fundal height graph (29.9%). More than 95% of pregnant mothers were satisfied with the antenatal care provided at the clinics though the satisfaction was relatively low for the services given by PHM during home visits (82.6%).

Conclusions: Implementation of revised antenatal care guidelines at community level and first level health care facilities were satisfactory except in few service areas.

CHALLENGES FACED BY THE HEALTH CARE WORKERS IN IMPLEMENTATING REVISED ANTENATAL GUIDELINES IN MATARA DISTRICT

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Background: Providing antenatal care according to a standard guideline results better outcome of the pregnancy, a healthy mother and a healthy newborn. Present study aims to assess the challenges faced by the health care workers in implementing these guidelines in the Matara district.

Methodology: Focus group discussions were carried out to assess the challenges faced by public health care workers in implementing the revised antenatal guidelines. Medical Officers of Health (MOOH) and Public Health midwives (PHM) were taken as study sample. Focus group discussions were conducted till it reaches the saturation of ideas. Thematic analysis was done.

Results: Almost all public health care workers were aware on the new guidelines. However, the MOOH who transferred during last year were not well aware on some components of new guidelines and they are facing difficulties in implementing some procedures given in guidelines. Only one third of study population accepted new clinic schedule due to practical problems. Almost all the MOOH and PHMs were agreed on the usefulness of the new pregnancy record compared to the previous one.

All the PHMs claimed that new guideline is useful them to identify the risk conditions and educate pregnant mothers. However, they are facing problems due to lack of time to perform all the tasks given. At the same time PHMs are expected to perform many other tasks than maternal and child health activities such as dengue control activities which they consider a wasting of time.

Almost all the MOOH and PHMs were agreed on the usefulness of the birth and emergency preparedness plan in new guideline and all the PHMs prepared it.

PHMs are facing a difficulty to get the husbands of pregnant mothers for the antenatal classes and they requested to conduct mass awareness campaign to improve the public awareness on antenatal classes. At the same time PHMs are not having adequate facilities to use the new technology during antenatal classes. In their words it is worth to provide information using a computer and multimedia than delivering a health talk.

PHMs do not have a clear guideline to conduct health education in clinics and they are facing a problem to organize the topics.

Conclusions: Although revised antenatal guidelines are more useful, challenges faced by public health staff need to be addressed.

A CASE OF SUCCESSFUL RECOVERY FROM SEVERE PERIPARTUM CARDIOMYOPATHY BY USING EXTRA CORPOREAL PERCUTANEOUS INTRA-AORTIC BALLOON PUMP (IABP)

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Introduction: Peri-partum cardiomyopathy (PPCM) is rare form of dilated cardiomyopathy, occurs in later part of pregnancy and early postpartum. Incident rate is around 1 in 2000 pregnancies. It carries higher maternal morbidity and mortality.

Most of the time etiology is unknown. Current hypothesis are cardio tropic viruses, autoimmunity, immune dysfunction and hyperprolactinemia causing cardiac myocytes damage.

Case: A 36 year old mother in her Second pregnancy with present and past history of Pregnancy induced hypertension (PIH), admitted at 34 weeks due to Pre-eclampsia (PE) with high uric acid level. She was on Aspirin and Nifedipine. Emergency Caesarean section (CS) was performed and post-operative intensive care (ICU) given. Following day she developed sudden onset Shortness of breath and lower limb oedema with low SPO₂. Peri-partum cardiomyopathy (PPCM) diagnosed by 2-D Echocardiogram with ejection fraction (EF) of 15%. Patient was ventilated and inotropes has been started. Her condition was being worsening due to multi-organ failure. Percutaneous intra-aortic balloon pump (IABP) was inserted following Multi-disciplinary (MDT) meeting. Post-op day 8, she developed acute left lower limb ischemia due to thromboembolism despite continuous heparin infusion. She had undergone above knee amputation. Following 14 days of ICU treatment, her ejection fraction improved to 50% and discharged from the ICU.

Discussion: Importance of early diagnosis and treatment could save the mother with PPCM. Primary treatment is beta blockers, diuretics and supportive management. In severe cases it carries 20% mortality rate and may need cardiac transplant or external cardiac devices.

IABP is a mechanical device which introduces through the femoral artery and sits in the aorta 2cm below the left subclavian artery and above the renal arteries. It inflates during diastole that increases myocardial perfusion, reduces after load and improves the ejection fraction. It is commonly use in cardiogenic shock during myocardial infarction and cardiothoracic surgery. IABP has a place in management of patient with cardiomyopathy, after considering morbid complications. Arterial thrombosis in lower limb leads to ischemia is common complication. It can be prevented with anticoagulation and inspection of limbs during pump in-situ. Other common complication is blockage of renal arteries by balloon which causing acute kidney failure.

Conclusion: Apart from traditional pharmacological managements, when comparing advantages and disadvantages IABP is a life saving option to deal with severe cases of PPCM. Arterial thrombosis and mechanical obstruction are common complications with IABP. Vigilant monitoring and prophylactic anticoagulation would prevent associated complications.

AUDIT ON DISCHARGE CHECKLIST OF POSTPARTUM MOTHERS, WHO HAVE UNDERGONE VAGINAL DELIVERIES OF WARD 22 IN TEACHING HOSPITAL ANURADHAPURA, SRI LANKA

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Introduction: Episiotomy infection/ dehiscence, unattended vaginal packs and poor knowledge on identifying postnatal complications are leading causes of postnatal morbidity and mortality. Therefore provision of postnatal care and systematic documentation is important in identifying features and risk factors associated with perinatal morbidity and mortality. A checklist was designed and introduced to identify early postnatal

complications, to minimize maternal morbidity and mortality and to provide essential care for the neonate during the first few hours after birth. An audit was conducted on compliance to the checklist introduced.

Objective: Assessing the adherence to the checklist introduced. Improving the practice of documentation amongst medical professionals.

Methods: A checklist designed to assess immediate postnatal status of the mother and the neonate was introduced to the postnatal wards in 2015, to be filled by intern medical officers and nursing officers. This is the first audit conducted after the introduction of the checklist. In this audit only few items of the checklist and the completeness of the checklist were assessed. The audit was carried out evaluating 100 patient bed head tickets retrospectively, to observe practice against agreed standards. The checklist is attached (annex 1).

Results: Breastfeeding has been established in 97% of cases. Vitamin A mega dose and BCG vaccine have been given to 92% and 94% neonates respectively. Vaginal examination and episiotomy examination was documented in 97% and 93% respectively. Contraceptive advice has been given to 97% of mothers. Only 71% was documented as been given advice on identification of post natal complications. Ninety five percent of nursing officer sections and 67% of intern medical officer sections of the checklist were complete.

Conclusions: Completion of the checklist by the nursing officers was satisfactory. Breastfeeding establishment and neonatal care have demonstrated good practice. Early postnatal care of the mothers, are documented as satisfactory. Areas of improvement/ recommendations.

Documentation and completion of checklist by the intern medical officers have failed to reach compliance. Specific attention should be given on postnatal complication identification advice as it was only 71%.

Keywords: perinatal morbidity, postnatal complications

AVAILABILITY OF HIV AND SYPHILIS STATUS OF MOTHER PRIOR TO DISCHARGE THE NEONATE AT A TERTIARY CARE CENTRE OF SRI LANKA; A CLINICAL AUDIT

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Objectives: Universal HIV testing in order to improve maternal health and prevention of mother-to-child HIV transmission and screening on syphilis in view of preventing congenital syphilis is recommended in all pregnant women according to international guidelines. But in developing nations the coverage is not up to the standards and even though the test has been performed, it is not available by the time the neonate gets discharged from the hospital.

Methods: This clinical audit was done at ward 02, Castle Street Hospital for Women, Colombo, Sri Lanka. Data were collected from postnatal wards by direct questioning on HIV and Syphilis testing prior to their neonates being discharged.

Results: Study group was consisted of 108 mothers where 64 (59.25%) of them were multipara. 22 (20.27%) of HIV test and 28 (25.92%) % of syphilis test results were not available by the time of discharging the neonate. Among them HIV and Syphilis testing was not offered to 10 (9.2%) and 18 (16.66%) respectively. That means HIV test results of 12 (11.1%) and syphilis test results of 10 (9.2%) were not traced even though it was offered. Only 50 % of all mothers were properly educated and consented prior to tests being carried out. 62% of mothers get the test done from field clinics and the rest from the hospital.

Conclusions: Offering the HIV and syphilis screening to all mothers following proper information should be optimized. Protocol of checking for the availability of the tests results during antenatal period to guarantee the disease free neonate is mandatory and will be established. Re-audit will be conducted in six months following adherence to the protocol.

A CLINICAL AUDIT ON POSTNATAL THROMBOSIS RISK ASSESSMENT AND MANAGEMENT

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Introduction and Objectives: Pregnancy is a prothrombotic physiological state. VTE (Venous Thromboembolism) is up to ten times more common in pregnant women than in non-pregnant women. Puerperium is the most vulnerable period. Meanwhile, systematic review of risk of postpartum VTE found that the risk varied from 21- to 84-fold from the baseline non-pregnant, non-postpartum state. In 2016, maternal mortality in Sri Lanka was 33.8 per 100,000 live births and reported cases of DVT/thromboembolism were 5. It is possible to have unidentified cases and still no collection of data with regard to morbidity and near-misses due to VTE/PE. In Sri Lanka DVT and PE might be playing a significant yet unrecognized role in maternal mortality. Objective of this audit is to evaluate the correct thrombosis risk assessment, risk classification and appropriate management of pregnant mothers in the postnatal period.

Method: An institutional based retrospective audit was carried out in Sri Jayewardanapura General Hospital. The sample was comprised of postpartum mothers, who were delivered during a time period of three months (n=245). Interviewer administered questionnaire, pregnancy records and clinical assessment were used to collect data after informed written consent. RCOG recommended antenatal VTE risk factors assessment, classification and management were used as review criteria to categorize the risk level and management. Level of performance was set at 80%.

Results: Out of 245 mothers, 131 (51.5%) had and 123 (48.5%) hadn't risk for VTE during postnatal period, however, out of that 113 (86.2%) was correctly identified. postpartum mothers who had actual risk for VTE (131) were classified according to their risk factors as, high risk group (2/131), intermediate risk group (98/131) and low risk group (31/131), out of that all high and intermediate risk group were correctly classified but only 51.6% (19/31) were classified as a low risk group. All high and intermediate risk group mothers were managed appropriately with the aid from haematology team, but only 57.8% (11/19) were managed in low risk group.

Conclusions: Prevalence of risk factors for VTE amongst postpartum mothers was relatively higher than it is perceived. Overall thrombosis risk assessment was satisfactory in this initial audit, meantime, identification and management of high and intermediate group were good. Changes were implemented and planned to carry out re-auditing in the future. This will improve correct VTE risk identification and management in postnatal period and it is expected to reduce maternal morbidity and mortality in Sri Lanka.

RELATIONSHIP BETWEEN LEVEL OF PHYSICAL ACTIVITY AND THE LOWER BACK PAIN IN PREGNANCY

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Introduction: Pregnancy related low back pain is common complain among pregnant women. having great impact on quality of life and daily living activities among pregnant population. Physical activity during the pregnancy period is one of the consistent evidence for primary prevention of low back pain compared to no activity. However, it's debatable whether physical activity may reduce the risk of getting low back pain or oppositely, may increase the risk of getting low back pain. Gap of knowledge can be identified in relationship in between level of physical activity and the low back pain disability in literature. Hence objective of the study is to identify the relationship between level of physical activity and low back pain disability among pregnant women who attended to the antenatal clinic at teaching hospital, Peradeniya.

Methodology: Study conducted as descriptive cross-sectional study, among 118 pregnant women in their 3rd trimester. A self-administered questionnaire was distributed. Validated Sinhala version of the Modified Oswestry low back pain disability questionnaire and the pregnancy physical activity questionnaire (PPAQ) used to assess the level of back pain and level physical activity during pregnancy respectively. Forward and backward translation method, translation and cross-cultural adaptation, expert panel discussion and pilot interview carried out as a part of this study for questionnaire validation. Pearson correlation coefficient test and the Pearson chi-square tests were adopted in data analysis using SPSS20.

Results: Mean age of the participants (N=118) was 29.28 ± 4.663 years (ranges 19-41 years), and majority of respondents were in their first (33.9%) or second (45.76%) pregnancy. Average physical activity level is 106.1MET hr/week which representing the moderate level. They have expended average of 8.6, 66.3, 29.9 and 1.3 MET hr/week (p< 0.05), on sedentary activities, light activities, moderate and vigorous activities respectively. The mean low back pain total score of the participants was approximately 31.85±12.86. No statistical significant correlation can be identified among total level of physical activity and lower back pain in third trimester (r=0.056, p=0.547). Relationship with the lower back pain and sedentary activities, light activities,

moderate and vigorous activities are $r=0.128$, $r=-0.062$, $r=-0.058$, $r=-0.134$ in ($p<0.05$), respectively.

Conclusion: There is no correlation in between physical activity and lower back pain during pregnancy. Future studies on developing of the aerobic exercise guide can be designed in order to improve health and quality of life.

ASSESSING THE KNOWLEDGE AND ATTITUDE ON TRIAL OF SCAR AFTER CAESAREAN SECTION AMONG PREGNANT MOTHERS WITH PREVIOUS ONE CAESAREAN SECTION

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Introduction and objectives: Caesarean section is being as the most common major obstetric surgery nowadays. RCOG states that maternal death rate of Elective repeat caesarean section (ERCS) is higher (13/100000) when compared to trial of labour after caesarean (TOLAC -4/100000). Implementation of a Vaginal birth after caesarean (VBAC) versus ERCS checklist or clinical care pathway is recommended by the RCOG to facilitate best practice in antenatal counselling, shared decision making and documentation and it should be 100%.

The objective of this study to provide data on the level of existing knowledge, attitudes and preference of modes of delivery, which can be used as a platform to raise knowledge among pregnant women regarding VBAC Versus ERCS.

Methods: This Survey was done at antenatal clinic, Teaching hospital Jaffna from February 2018 to March 2018 from 100 patients using interviewer administered questionnaire at the period of amenorrhea of 36 weeks.

To assess the knowledge, Patients were asked to answer for a question sheet which contained 20 questions regarding risks benefits and complications of VBAC and ERCS. Each Question was given 5 marks. Target level of marks was 75%.

Results: Among the 100 mothers only 21% of mothers were willing for VBAC. 68% of mothers were willing for ERCS and rest of the mothers were not given the confirmed decision regarding the mode of delivery. Among the people who were willing for VBAC, 16% mothers said that vaginal delivery will be safer than LSCS as their reason for the willingness and 5% mothers were fear of going for LSCS. 71% mothers were fear about VBAC and 8% of mothers had previous bad experience during vaginal delivery.

62% of mothers told that they acquired some knowledge on VBAC and ERCS at least from one sources of the following include MOH clinic, Antenatal clinic, from internet or any other ways. But only 28% of mothers acquired the knowledge before the 3rd trimester. Only 7% of mothers achieved the target level of 75%, when assessing the knowledge.

Conclusion: Overall knowledge and attitude towards VBAC is not satisfactory according to the results. Counselling regarding mode of delivery in previous caesarean section mothers need to be started atleast from the mid trimester after excluding the possible contraindications for VBAC. Audits need to be done at

regular interval among health staffs to findout the effectiveness of counselling about TOLAC.

HANDHELD DOPPLER VERSUS PINARD FETAL STETHOSCOPE FOR INTERMITTENT MONITORING OF FETAL HEART RATE DURING THE SECOND STAGE OF LABOUR

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Introduction and objectives: Perinatal mortality is a good indicator to assess the quality of the intrapartum health care strategies. Foetal heart rate monitoring is a well-accepted procedure to ensure foetal wellbeing during the intrapartum period. In the routine clinical practice, foetal heart rate monitoring is done by midwives in the labour room with the help of a Pinard foetal stethoscope. The reliability issues encountered with the Pinard stethoscope would be overcome by the handheld Doppler ultrasound foetal heart rate monitoring method.

Objectives of this study is to compare the incidence detection rate of handheld Doppler versus Pinard foetal stethoscope in intermittent monitoring of foetal heart rate during the second stage of labour.

Methods: An analytical cross sectional study was conducted among 423 pregnant women who were admitted for their confinement to Teaching Hospital Jaffna. Term singleton pregnancies with cephalic presentation were included. Pregnancies complicated with medical disorders, previous history of antepartum hemorrhages and past sections were excluded. Interviewer administered structured data collection sheet was applied for data collection and data analysis was done by using SPSS 23.0.

Results: Mean age of the study participants was 27.97 years (SD=5.72 years). Foetal heart rate abnormalities were not detected among 63.3% of the study participants (N=269). In 17.9% (N=28) participants, foetal abnormalities were first detected by the Pinard stethoscope and in 28.2% (N=44) participants abnormalities were first detected by the handheld Doppler machine. Significantly higher percentage of participants were detected by the handheld Doppler machine than the pinard foetal stethoscope ($z=2.159$; $p<0.05$). In 53.3% of the (N=84) mothers with complicated deliveries, foetal heart rate abnormalities were detected at the first time by both methods. Identification of foetal heart rate abnormalities by both methods significantly indicates the risk of proceeding to a complicated delivery (OR=2.508; 95% CI =1.230 - 5.115).

Conclusion: Using the handheld Doppler method for foetal heart rate monitoring is more effective than using the traditional pinard stethoscope. Predictions gathered by using findings of both methods are more accurate. Further studies should be conducted regarding the use of handheld Doppler monitoring method as a highly sensitive and diagnostic test during the intrapartum period. Health care staff should be directed and motivated to use the handheld Doppler machine and to take the measurements along with the pinard foetal stethoscope.

Key words: Pinard Stethoscope, Doppler, Heart rate

AUDIT ON SUCCESS RATE OF VAGINAL BIRTH AFTER CAESARIAN SECTION (VBAC) IN A TERTIARY CARE HOSPITAL

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Background: Caesarian section is the commonest major surgery done in the females in obstetrics. Caesarian section rate is increasing all over the hospitals in Sri Lanka in the view of reducing perinatal mortality rate. Common indications for elective repeat caesarian section are past section and maternal request. As this is a surgery, there would be increased duration of hospital stay, analgesic requirement and morbidity to the mother and also reduced chance of skin-skin contact of baby immediately after birth. Therefore in order to reduce the complications of caesarian section VBAC is introduced since old days. VBAC is a safe alternative to mother, aiming to reduce caesarian section rate. Planned VBAC is indicated for majority of females with singletons pregnancy and cephalic presentation at or beyond 37 weeks of gestation, who had previous single section with or without previous vaginal birth. Thus counselling on VBAC should be started since booking visit at the antenatal clinic and then should be reviewed at 36 weeks of gestation for assessing the fetal growth by ultrasound scan and for assessing cervical favourability, thereby decide on allowing VBAC. Set standard for VBAC success rate is 72% according to RCOG green top guideline.

Materials and methods: Audit was conducted in Obstetric ward and labour room, ward 18 at Colombo South Teaching Hospital by descriptive retrospective analysis of birth registers and bed head tickets. This was performed from July 2017 to January 2018 for 7 months duration. We have allowed 32 mothers for VBAC for 7 months duration, analysed and success rate was calculated. Here unit policies and informed written consent for VBAC of patients were included in study. After the audit, doctors and nursing staff were educated and guidelines were discussed and prepared for what standard indications VBAC can be tried. After 3 months reaudit was planned.

Results: Among total of 32 mothers, 14 mothers delivered success fully without any complications, 18 mothers finally went into caesarian section and there were no instrumental deliveries. Those delivered by VBAC were 43.8% and those went into caesarian section were 56.2%. Among those who got success in VBAC (14), 35.7% (5) mothers had previous normal vaginal deliveries and 64.3% had no previous vaginal deliveries. Among those who went into caesarian sections, 5% were due to meconium, 17% were due to lack of progression and 78% were due to unfavourable cervix. VBAC success rate was 43.8%. There were no mothers following uterine rupture or dehiscence.

Conclusion: Our study population is less and VBAC success rate was 43.8%. This low rate of VBAC was due to elective repeat caesarian section due to maternal request. According to RCOG green top guideline, previous vaginal delivery, particularly previous VBAC is the single best predictor for successful VBAC and is associated with a success rate of 85-90%. Appropriate counselling of females regarding mode of delivery after one caesarian section is essential to avoid repeat caesarian section for maternal request. We should strongly encourage the mothers as well as partners and family members for fixing the mind on normal vaginal delivery rather than direct request of caesarian

section, for those who had previous normal vaginal deliveries, especially those with previous successful VBACs. It highlights the importance of regular systematic clinical audit for improvement of health care system. Repeated education of doctors, nurses and midwives, repeated audits and reinforcements can improve the successful VBAC rate and thereby reduce the caesarian section rate. This will reduce the burden to mothers and increase the quality of life of mothers.

AUDIT ON RATE OF EPISIOTOMY AMONG TERM VAGINAL DELIVERIES IN LABOUR ROOM IN A TERTIARY CARE HOSPITAL

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Background: Episiotomy is an incision made on perineum in between vagina and anus. It is not a routine procedure. Episiotomy is performed in most of the primi mothers and many multigravidae mothers. Perineal tissue is cut diagonally from vagina outwards towards ischial tuberosity. This is called mediolateral episiotomy. This can prevent third degree and fourth degree perineal tears and it reduces perineal damage. Disadvantages are increased pain and bleeding, difficult to repair and heal and increased risk of scarring. Indications are to hasten the delivery of distressed/ large birth weight babies/ baby with abnormal presentation and allows space for application of instrumentation.

Materials and methods: Audit was conducted in ward 18 labour room. This was done in two cycles during the months of June, July 2017 (1st cycle) and January, February 2018 (2nd cycle) by analysing Birth and Episiotomy Registers. Total vaginal deliveries for June 92, July 108 and January 82, February 54 patients. After the first cycle labour room staff were educated on indications for episiotomy and how can we avoid episiotomy and reaudit was done after 6 months in January and February (2nd cycle).

Results: In June, July 2017 and in January, February 2018 percentage of results as follows: Among vaginal deliveries episiotomy rate for June 2017 81%, July 2017 76% (1st cycle) and January 2018 85%, February 2018 88%. Among vaginal deliveries with episiotomy in 1st cycle, primi and multi mothers for June 2017 40%, 39% respectively, primi and multi mothers for July 2017 38.8%, 49% respectively and in 2nd cycle, primi and multi mothers for January 2018 40.2%, 48.7% respectively, primi and multi mothers for February 2018 46.2%, 40.7% respectively. Among primi mothers episiotomy rate for June 2017 97.3%, July 2017 97.7% (1st cycle) and January 2018 97%, February 2018 100% mothers (2nd cycle). Among multigravidae mothers episiotomy rate for June 2017 74%, July 2017 77.9% (1st cycle) and January 2018 83.3%, February 2018 75.8% (2nd cycle). Among instrumental deliveries episiotomy rate for June 2017 100%, July 2017 100% (1st cycle) and January 2018 100%, February 2018 100% (2nd cycle).

Conclusion: Our results show there is no significant difference in episiotomy rate among vaginal deliveries between 1st and 2nd cycle. There is 98% -100% episiotomy rate among primi mothers in both 1st & 2nd cycle. There is no significant difference in episiotomy rate among multigravidae mothers between 1st and

2nd cycle. Steps on education for staff to reduce the episiotomy rate significantly, must be studied and implemented. Repeated education, reinforcements and audits would improve the current status.

MATERNAL PERCEPTION ON LABOUR COMPANION: A CLINICAL AUDIT

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Introduction and objectives: Childbirth is one of the most significant events in woman's life and her family. It is associated with many social and emotional implications. Research has shown that continuous non-medical support during labour improves maternal, perinatal and neonatal outcomes. Even though our unit facilitate a labour companion (LC), we observed only 27% of mothers receive this support. Objective of this audit is to assess the maternal perception on labour companion and to identify means to improve the acceptance of this facility.

Methods: Data was collected from mothers admitted for confinement to ward 09, Castle Street Hospital for Women from 02nd of March 2018 to 20th March 2018. An interviewer facilitated self-administered questionnaire was used to collect data from the participants. It assessed the participant's acceptance, knowledge and choice of labour companion.

Results: Total number of 52 mothers were interviewed during the audit. The mean age was 28.76 years and 44.4% were primigravidae whereas 55.6% were multigravidae. Most of the mothers (93.4%) were educated above ordinary level.

Among the 52 mothers, 62.2% were aware about a LC before admission to the ward. The source of knowledge for most of them (78.5%) was the antenatal clinic. Only 10.7% mothers were informed by the field midwife about LC.

Only a few (15.6%) mothers did not like to keep a LC. Privacy was the main concern of them and significant number of them thought they can face the stress alone.

Of the mothers who wish to have a LC (84.4%), partner was preferred by 51.1% and mother was preferred by 24.4%.

Most of the mothers (93.3%) were aware of the emotional benefits from a labour companion. However, the knowledge was found to be poor on other important benefits like less requirement of analgesics (26.7%), shorter duration of labour (31.1%) and improved perinatal outcome (28.9%).

Conclusions: Most of the mothers prefer to have a companion during labour. However, the level of knowledge should be improved prior to admission to labour ward, particularly during antenatal period, which allows mothers to arrange facilities for a companion. Pregnant mothers and their families should be adequately counselled about potential benefits other than emotional help through continuous non-medical support during labour.

PRETERM UTERINE RUPTURE

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Introduction: Uterine rupture is associated with scarred uterus, mostly previous cesareans scar. Its prevalence is 1 in 200 women but this risk is high in previous 2 or more cesareans section or classical cesareans section or inverted 'T' or 'J' shape incision. There was insufficient data available to conclude the risk and safety of inverted 'T' or 'J' shape incision.

Case report: She is Mrs. M.M.R, 29 years old in her second pregnancy with period of gestation of 33 weeks and 1 day. Admitted with abdominal pain and reduced fetal movement for 4 hours duration.

Her first pregnancy was uncomplicated up to 32 weeks. She had anomaly scan at 20 weeks and glucose tolerance test at 28 weeks, those found to be normal. She was developed dribbling at 32 weeks, it was confirmed by speculum examination. Ultra sound scan showed growth parameters were equal to dates, liquor volume reduced, placenta anterior fundal and breach presentation.

Then she was managed conservatively with erythromycin and dexamethazone coverage, then 10 days after she develop labour pain. The consultant obstetrician was decided to do emergency cesareans delivery, during cesareans section uterine incision was extended as inverted 'T' shape incision to deliver the baby and baby was died on 5th day of delivery. Her postoperative period was uneventful and she was discharge on day 5.

This pregnancy she had booking visit at 8 weeks and she attended 7 visit, all have been seen by consultant obstetrician. The last visit plan was elective cesareans section at 36-37 weeks but on her first day of 34 weeks (33w + 1 day) developed intermittent lower abdominal pain and reduced fetal movement.

Four hours later she got admitted and diagnosed as intrauterine fetal death and free fluid noted in the peritoneal cavity. Then she underwent emergency exploratory laparotomy, there fetus and placenta was in the peritoneal cavity and uterus was ruptured in sagittal plan up to fundus.

The consultant obstetrician was did hysterectomy and send her to ICU for further management. The postoperative period was uneventful and she was discharged on day4.

Discussion: Uterine rupture during labour is uncommon in scar uterus women but this risk is high in 'T' shape extended uterine scar women. These kind of women should be monitored closely and delivered by elective cesareans section at 36-37 weeks of pregnancy with dexamethazone injection.

CLINICAL AUDIT OF KNOWLEDGE & PREFERENCE OF METHOD OF CONTRACEPTION IN WOMEN WHO DELIVERED IN PROFESSORIAL UNIT OF THP AND ASSESSMENT OF THE QUALITY OF HEALTH EDUCATION ON CONTRACEPTION

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Objectives: To audit maternal preference of methods of postpartum contraception and the knowledge of methods of

contraception and the assessment of quality of health education on contraception.

Methodology: This audit was designed as a cross sectional study covering quality of health education on contraception, preference & knowledge of method of contraception in 59 women who delivered in professorial unit of THP in two weeks.

Result: Among 59 women, most of women (25.4% [n=15]) preferred combined oral contraceptive pills (COCP) as method of post-partum contraception. 20.3% (n=12) preferred Judelle (subdermal Levonorgestrel releasing implant). 15.2% (n=9), 13.5% (n=8), 11.9% (n=7) and 8.4% (n=5) of women preferred Intramuscular Depot Medroxyprogesterone acetate (DMPA), natural family planning methods/fertility awareness methods, Copper intrauterine device (IUD) and barrier methods respectively. Minority of women 5% (n=3) preferred tubal sterilization.

Most of women (95% [n=56]) were aware of barrier methods (mainly male condoms). Next popular method of post-partum contraception was the COCP (84.7% [n=50]). 76.2% (n=45), 72.8% (n=43), 59% (n=35) of women were aware of tubal sterilization, Intramuscular DMPA and IUD respectively. Minority of women 34% (n=20) were aware of judelle.

51 out of 59 (86.4%) women didn't receive information of methods of post-partum contraception either during pre-pregnancy or during antenatal period. Rest of women [13.6% (n=8)] have been educated on methods of post-partum contraception before delivery by professionals (doctors, nurses or midwives)

Conclusion: Receiving Information on contraception for women during Pre-pregnancy and pregnancy period is poor. So it's important to look in to whether standard contraceptive awareness program is currently proceeded or not in local clinic level as well as, tertiary level. Because usage of suitable contraception has indirect contribution for reduction of the maternal mortality and morbidity, especially in developing countries.

ASSOCIATION BETWEEN SQUATTING HABITS AMONG PREGNANT MOTHERS DURING ANTENATAL PERIOD AND THEIR LABOUR OUTCOME: A DESCRIPTIVE CROSS SECTIONAL STUDY

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Introduction and Objective: Globally to prevent obstetric bad outcomes, pregnant mothers are prepared with inclusion of various exercises to their periodical preparations because muscle strength is an important factor in child birth. Among them are squatting exercises which will lead to strengthening of the Pelvic floor, abdominal, back and thigh muscles. But there is a dearth of prior studies pertaining to the squatting posture. We sought to describe pregnant women's squatting activities during the antenatal period and examine its association with the labour outcome.

Method: A cross sectional study was conducted at a single teaching hospital ward from June to December 2017. Primi mothers who went into labour were included. Inclusion criteria

were single live fetus at cephalic presentation, with no significant co morbidities and not exercising regularly. Data were collected from antenatal records, bed head ticket and interviewer administered questionnaire on squatting activities and perception of pain. At least 246 minutes of squatting per week was considered satisfactory. Pearson chi-squared, student t-test and SPSS version 15.0 were used for statistical analysis.

Results: 368 (86%) engaged in at least one squatting activity, 147 (34%) of whom reached the satisfactory level. Squatting activity was most common among the 254 (59%) squatting pan users at mean (SD)=146 (155) minutes. Mother's age 20-30 years, those with BMI <18.5 or > 30 kg/m², low educational level and housewives showed significantly greater activity, but no differences were seen across ethnicities. Satisfactory squatters had greater Bishop's score (p=0.006), rapid labour progression (p<0.001), less need for labour augmentation (p=0.017), less need of pain relief (p=0.013) and greater rate of carrying beyond 40 weeks of gestation (p=0.001). No significant differences were seen in caesarean rate, APGAR score, birth weight, tear and episiotomy rate.

Conclusion: Squatting more than 246 minutes per week may improve the labour process. Incorporate acquisition of squatting position in daily activities would be helpful in Sri Lankan demography. Use of squatting pans or elevating legs, while using a commode could be considered.

AUDIT ON ANTENATAL RECORD MAINTENANCE

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Introduction: Antenatal record is a comprehensive document used to assess and document risk factors in pregnancy in order to initiate timely interventions. Incomplete documentation and record keeping may pave way to sub optimal management of pregnancy.

Method: Random antenatal records of 40 antenatal mothers, delivered within November and December 2017, at ward 9 Sri Jayawardenapura General Hospital were reviewed retrospectively for completeness of booking history, examination, investigations and follow up records. The unit antenatal record protocol was used as standard for comparison.

Results: Mean age was 29.8 (±4.18) years. Booking visit at a mean POA of 15.5 (±7.83) weeks.

Pregnancy related risk factors, pregnancy complications, management plan, blood group and unexpected antibodies were not documented in 7 (4.5%), 10 (33%), 8 (25%), 2 (5%) and 10 (25%) while pre pregnancy counselling, folic acid use, Rubella vaccination 1 (2.5%) each. Parity, last menstrual period, obstetric, medical, surgical and allergic history were recorded in all.

Documentation of body mass index, cardiovascular, lung and breast examination was 100%. Although early pregnancy scans were recorded in 39 (97.5%), recommended dating scan between 11-14 weeks was done in only 6 (15%).

Booking investigations fasting blood sugar, RBS, HbA1c was documented in 27 (67.5%), 2 (5%) and 35 (85%). OGTT was not recorded in 1 (2.5%). Although booking haemoglobin was recorded in all (100%), repeat haemoglobin at 32 weeks was not

mentioned in 21 (52.5%). Thyroid functions, Syphilis screening, retroviral screening, Hepatitis B surface antigen, urine full report and urine culture were recorded in 40 (100%), 32 (80%), 30 (75%), 38 (95%), 38 (95%) and 31 (77.5%). Anomaly scan findings were mentioned in only 4 (40%) where indicated.

Documentation of antenatal supplement prescription was present in 32 (80%). Tetanus toxoid 1st dose, 2nd dose, booster dose administration, blood pressure chart was not recorded in 5 (16.6%), 12 (46%), 7 (35%) and 15 (37.5%). Rh negative anti D administration and contraception counselling was only 1 (2.5%) each. Breast re examination at 34 weeks and postpartum plan were not recorded in all. Preferred family planning method was recorded in only 4 (10%).

Conclusion: Antenatal record keeping was overall satisfactory. However, documentation of blood group, unexpected antibodies, contraception counselling, re examination of breast, family planning method, postpartum plan was poor. A repeat audit cycle after intervening on these deficient areas is recommended.

AN AUDIT ON ACCURACY OF VISUAL ESTIMATION OF BLOOD LOSS IN OBSTETRIC HAEMORRHAGE IN TEACHING HOSPITAL JAFFNA

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Introduction: Massive obstetric haemorrhage is a major cause of maternal mortality and morbidity. A delay in the correction of hypovolaemia, a delay in the diagnosis and treatment of defective coagulation are the avoidable factors in most maternal death caused by haemorrhage. Visual method is the main way of estimation of blood loss after vaginal/abdominal delivery in developing countries. Inaccurate visual estimation by medical team can end up in poor medical management.

Objectives: To find out the difference between estimated and actual blood loss.

Method: An audit was conducted on 2/2/2018 at Teaching hospital Jaffna. 50 obstetric ward staffs, were participated. Obstetric ward staffs were given questionnaire with multiple choices to access visual estimation of blood volume of small swab (30 ml), large gauze swab (80 ml), sanitary pad (soiled-30 ml, soaked -100 ml), kidney tray (500ml) and delivery bed (1000 ml). Questionnaires were analyzed with SPSS version.

Results: Twelve doctors, twenty three nursing officers and fifteen midwives were participated. 91% of doctors, 87% of nurses and 100% of midwives have seen patients with obstetric haemorrhage. Out of six stations significant under estimation of actual blood loss occurred in three (sailed, fully soaked sanitary pad and delivery bed)

Only 40% of mid wives, 69% of nurses and 60% medical officers correctly evaluated fully soaked sanitary pad. And 66% of midwives 43% of nurses and 75% of medical officers correctly evaluated the spilled blood in delivery bed. Blood volume in small swab was correctly identified by more than 80% of participants.

Conclusion: Overall visual estimation of visual blood loss by the participants is unsatisfactory. For the recognition and

management of massive obstetric haemorrhage there should be suitable pictorial assessment chart which will help to improve the timely resuscitation of these patients. Re audit should be done after six months of time.

KNOWLEDGE REGARDING LABOUR AMONG ANTENATAL TERM MOTHERS ADMITTED TO TEACHING HOSPITAL MAHAMODARA

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Background: Delivery is the most stressful event in pregnancy. It is stressful not only to the mother but also to the health care worker involves with the care. In many developing countries including Sri Lanka maternal morbidity and mortality still pose a substantial burden, though Sri Lanka has maternal mortality rate (MMR) figures in par with developed countries. Birth preparedness and complication readiness is paramount as the initial essential step early obstetric care. Raising awareness of women about the warning signs of labor and delivery empowers women to undergo a successful birthing process. The objective of this study was to access the knowledge regarding delivery, (fetal wellbeing, obstetric danger signs, and analgesics in labor) in mothers admitted to teaching hospital Mahamodara, a tertiary care hospital in Sri Lanka.

Methodology: Descriptive cross sectional study was done over two months at all three antenatal wards at teaching hospital Mahamodara. Data was collected from 403 term antenatal mothers in varying age groups, educational levels, and parity. Data was collected through self-administered pre tested questionnaire, with the informed consent. Analysis was done by SPSS 20 package.

Results: Three hundred and seventy nine mothers (94.1%) were between 20 to 49 years, 228 (59%) having up to ordinary level. Most were primies 171 (42.4%).

Three hundred and seventy seven (93.5%) of the mothers had participated health educational programs at antenatal clinics of whom 353 (87.5%) had participated such programs at field level while Fifty (12.41%) had not participated. Of mothers did not participated health educational programs at field level, half of the mothers 201 (50.62%) had followed the health education programs conducted by teaching hospital Mahamodara. Majority of the mothers 240 (59.6%) were participated more than three health educational sessions. 233 (57.8%) mothers had good knowledge on signs of labor and delivery. Majority 282 (70%) had good knowledge on indications for hospital admission. There is no statistically significant knowledge difference according to the parity, age or occupational state of the mother. But who has education level above ordinary level has significantly higher overall knowledge 233 (57%). Mothers who had participated in health education programs had significantly higher knowledge compared to mothers who have not participated in health education programs.

Conclusion: Educational state of the mothers and participating in educational programs had a significant more knowledge regarding the early warning signs of labor and delivery.

Recommendation: Health education information, targeting pregnant women and their partners regarding danger signs of labor and delivery is recommended.

KNOWLEDGE AND PRACTICES ON THE CORRECT USE OF THE PARTOGRAM AND MEOWS CHART: A STUDY AMONG MATERNITY STAFF OF A TEACHING HOSPITAL IN SRI LANKA

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Background: The partogram is the most effective tool to monitor the progress of labour and complications associated. We conducted a study assessing the knowledge, attitude and practices of maternity staff on the effective use of the partogram in a tertiary care maternity hospital in Sri Lanka; teaching hospital Mahamodara.

Methods: A cross-sectional descriptive study was done using a self-administered questionnaire among 60 randomly selected maternity care staff.

Results: Participants were from wards (34) and labour suits (26), including nurses (40), nursing sisters (2), doctors (8) and ten midwives. The mean (SD) work experience was 143.3 (93.92) months and mean labour room (LR) experience was 34 months. Regarding partogram training 14 (23%) had never received a training, while 16 (26%) had received it during basic training period, further 28 (46%) had received a special midwifery training. Forty (66.6%) had ever used partogram, of them only 1/3 (33.3%) knew at what stage patient should be admitted to labour suit. 24 of 60 (40%) participants had correctly started documenting partogram. Both first and second stage fetal heart sounds monitoring documentation performed had been similar where latent (in 1st stage) and passive (in 2nd stage) phases were correct in 66.6% (40) and active (in 1st stage) and descent (in 2nd stage) phases correctly documented in 86% (52) respectively. Twelve (20%) knew about indication for continuous CTG monitoring, while 24 (40%) knew palpation is the method of choice to assess contractions correctly. Thirty four (56.6%) knew about time duration of contraction monitoring. Majority 56 (96.6%) were aware about categorizing strength of contraction to mild moderate and strong accordingly. 48 (80%) knew about uterine hyperstimulation, while 52 (86%) knew about initial treatment. 42 (70%) knew to draw action line accurately. Majority 34 (56%) didn't know to define head engagement. 36 (60%) were correct in time intervals blood pressure monitoring during labour and 58 (96%) knew correct pulse rate and temperature documenting intervals. Allowed maximum duration of second stage was correctly known for primi and multipara were 40 (66.6%) and 36 (60%) respectively. 36 (60%) could diagnose a retained placenta.

At monitoring of third stage 30 (50%), 42 (70%) and 48 (80%) correctly marked monitoring of blood pressure, pulse rate and uterine tone respectively. Of monitoring required for all mothers 50 (83%), 54 (90%), 54 (90%) were the numbers who knew uterine tone, blood loss estimation and bladder distension are essential monitoring items, respectively. 34 out of 60 (56.6%), correctly marked MEOWS chart.

Conclusion: The knowledge and practices of maternity staff on the effective use of the partogram are substandard.

Recommendations: Frequent training sessions on partogram maintenance is recommended.

PERCEPTION, KNOWLEDGE AND ADHERENCE TO MEDICAL NUTRITION THERAPY OF PREGNANT MOTHERS WITH HYPERGLYCEMIA

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Introduction and objectives: Diabetes mellitus is at an exponential rise throughout the world due to multifaceted changes in life style. Simultaneously, prevalence of hyperglycemia in pregnancy is also at a rise complicating pregnancy. Medical nutrition therapy (MNT) is considered the corner stone of treatment in hyperglycemia in pregnancy. It is primarily dependent on the communication between the medical practitioner and the patient and the co-operation of the patient. This study aims to evaluate the perception, knowledge and adherence to MNT of pregnant mothers with hyperglycemia.

Method: A descriptive cross-sectional study was conducted in the castle street hospital for women in 124 antenatal mothers with hyperglycemia attending antenatal clinic in the month of May 2018. A pretested interviewer administered questionnaire was used to collect the data. Analysis was done using t -test and Chi-square test.

Results: Mean age of the study participants was 32 years (SD +/- 5.34). Majority (58.1 %) were Sinhalese while Moor and Tamil were 29% and 12.9 % respectively. Education level of 86% was ordinary level or above. Gestational diabetes (GDM) was seen in 56.5%. Type 2 and 1 diabetes was seen in 41.9% and 1.6% respectively.

MNT was a known concept by 86.3 % participants. Majority (88.7%) expressed it was effective. About 55.6% of participants thought that MNT alone can be used to control hyperglycemia. More participants with GDM (70%) perceived that MNT alone can be used, compared to participants with type 2 diabetes (38.6%).

About 74.2 % participants were knowledgeable on carbohydrate portions and exchanges. Awareness on high and low glycemic index food was reported in 76.6%. But glycemic load concept was known to 26.6% only. 71.8% participants knew about frequent small feeds while 63.3% of participants knew portion sizes of their preferred food.

Among participants 87% could practice MNT. Of pregnant mothers with GDM the ability to practice MNT was 92.9% and among type 2 diabetes was 80.8%. Among non adherent participants, 37.9% found it difficult to change their dietary patterns.

The age, ethnicity and education level did not show any significant association with the perception, knowledge and adherence to MNT. (P>0.05)

Conclusion: Majority were aware of MNT. Perception and adherence to MNT was better in pregnant mothers with gestational diabetes compared to type 2 diabetes. Glycemic load

awareness needs to increase while food preferences should be offered more. Type 2 diabetes mothers need more emphasis in MNT during pregnancies.

CASE REPORT: MONOCHORIONIC MONO-AMNIOTIC TWIN WITH CO-TWIN DEATH

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Introduction: Monochorionic monoamniotic twin is rare and co-twin death is associated with high risk of morbidity and mortality to surviving twin. These risk are due to cord entanglement transfusion of blood from surviving twin to death twin at the time of co-twin death

Case report: She is Mrs. P S, 24 years old, married for 8 months and primi gravida admitted for the management of monochorionic monoamniotic twin (MCMA) with co-twin death.

She has no family history of twin pregnancy and it was a plan pregnancy. She had booking visit at 11 weeks of gestation where ultra sound scan confirmed the viability, date and monochorionic monoamniotic twin.

Plan was given by consultant obstetrician as monthly clinic upto 16 weeks then 2 weekly until delivery around 34 weeks. She had anomaly scan at 20 weeks by fetal medicine specialist, it showed MCMA twin with growth were equal to date and there was no growth discrepancy between fetuses. There was no evidence of twin to twin transfusion syndrome (TTTS) or any fetal anomaly and her glucose tolerance test at 28 weeks found to be normal.

At around 25 weeks onwards she develops sudden abdominal distension, regurgitation and shortness of breath. Then she had a second scan by fetal medicine consultant at 28 weeks concluded that MCMA twin with second twin was stage 5 TTTS and fetal death and first twin alive with polyhydramnios and moderate cardiomegaly. Middle cerebral artery (MCA) and umbilical artery(UA) doppler were normal and the plan given as if there is no signs of acute fetal anaemia, consider delivery at 35 weeks.

She got admitted to ward at 28 weeks and she had every 3rd day MCA and UA doppler, weekly growth scan, amniotic fluid volume and DIC screen. In 30 weeks of gestation she received dexamethazone injection and mgso 4 4gram bolus dose infusion.

At 32 weeks her liquor volume was grossly reduced, MCA and UA doppler were normal and estimated fetal weight was 2.076kg. The consultant obstetrician was decided to do emergency cesarean after confirming NICU beds.

Same day emergency cesarean was done and live baby was 1.96 kg and 5,10 minutes APGAR were 8 and 9 and other twin was macerated. The mother's postpartum period was unevenful and discharged on D4. Live baby was taken into NICU and brain scan showed no periventricular leucomalacia or ventriculomegaly and baby handed over to mother after one week.

Conclusion: Management of MCMA twin pregnancy is a challenge. Eventhough the RCOG guideline said neurological abnormality was 26% in surviving twin of MCMA twins, in our twin does not have any evidence for major neurological deficit.

Theme 8 Post-reproductive Health

KNOWLEDGE ON OSTEOPOROSIS AMONG POST MENOPAUSAL WOMEN

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Introduction: Menopause is a well known major cause of osteoporosis. Thus women should have a reasonable knowledge on risk factors, screening and prevention of it, in order to have a quality life after their menopause.

Objective: To assess the knowledge on osteoporosis among post menopausal women.

Methodology: A descriptive study was done among post menopausal women attended gynecology clinic and admitted to gynecology ward at De Soysa Hospital for Women during the study period. An interviewer administered questionnaire was used to collect the data. Analysis was done by SPSS.

Results: A total of 192 women were studied. The mean age was 54 and mean age at menopause was 51 years. Mean BMI was 28.6 kg/m². Out of 192 women, 123 (64.1%) have heard about osteoporosis but only 38 (19.7%) were aware about risk factors for osteoporosis. 78 (40.6%) were aware that osteoporosis can be screened. 23 (12%) were screened for osteoporosis radiologically because of the fractures they had. 113 (59%) of women knew at least one lifestyle modification which can prevent osteoporotic fracture. Only 26 (13.5%) are doing walking and jogging as regular exercises. All women are doing household work and such as cleaning, washing, cooking and 140 (73%) are baby sitters for their grand children.

None of them has a family history of diagnosed osteoporosis, but 30 (15.6%) women have a 1st degree relative with spontaneous fracture after the age of 45. Common medical disorders among study group are dyslipidaemia and diabetes found in 58 and 51 women respectively.

Conclusion: Knowledge on osteoporosis was low among study population and the screening should be strengthened.

Theme 9 Benign Gynaecology

A CASE REPORT: COMPLETE BICORNUATE UTERUS IN A PATIENT WITH RECURRENT PREGNANCY LOSSES

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Introduction and Objectives: Anatomical abnormalities of female genital tract can occur due to failure of development, fusion canalization, or reabsorption of the Mullerian Duct in between 6/52 and 22/52 in utero. Of these, failure of unification gives rise to Unicornuate, Bicornuate or Didelphys uterus.

Incidence of Bicornuate uterus is around 0.4% in general population but rises in women with subfertility and recurrent miscarriage to 1.1% and 2.1% respectively. Even among the women who conceive, their term delivery rate is only 40%.

Clinical description: A 49 year old lady who was G4P4C0 was referred to the gynaecology clinic. Her 1st and 2nd pregnancies had ended with late 2nd trimester miscarriages and her 3rd and 4th pregnancies had ended up with IUDs at 27 and 30 weeks. Despite this history, she had defaulted further evaluation due to inadequate awareness and family support. She presented this time with heavy menstrual bleeding for 6 months' period which was not responding to medical management and associated with dyspareunia and history of intermittent episodes of urine retention. Her ultrasound scan revealed a Complete Bicornuate Uterus. Her haemoglobin value was 8.9g/dl. Rest of biochemical investigations were normal. Due to her poor compliance and failure of medical therapy, a Total Abdominal Hysterectomy was offered. At the surgery the diagnosis was confirmed and renal anomalies were excluded.

Discussion: The diagnosis of bicornuate uterus was missed in this patient in all pregnancy losses either due to not cautiously looking for a cause or poor ultrasound scan techniques. However, her poor compliance would have contributed to it. As patients with bicornuate uterus are also more likely to develop abnormal uterine bleeding, it was finally detected during her premenopausal period and correctly removal was done to alleviate her symptoms.

Conclusions: In patients with subfertility and recurrent pregnancy losses, uterine anomalies should be considered as a cause and evaluated. Although there is a low term delivery rate, with corrective surgery and close follow up during pregnancy they could successfully carry a pregnancy.

CASE ON LIPOLEIOMYOMA OF BROAD LIGAMENT MIMICKING THE OVARIAN TUMOR

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Introduction: Lipoleiomyomas are a mixed form of uterine smooth muscles and lipid tissue, account for approximately 0.03-0.2% of all uterine leiomyomas and are comprised of a mixture of variable amounts of smooth muscle cells and mature adipocytes. Lipoleiomyomas commonly occur in post-menopausal women, whereas leiomyomas occur mostly in reproductive age women and usually regress after menopause. The frequency of common location of a lipoleiomyoma is uterus, cervix, ovaries and, on occasion, the retroperitoneum. However, lipoleiomyomas on the broad ligament are extremely uncommon

A 65 years old postmenopausal women of five children referred to Gynaecological clinic from surgical department for further management of solid right sided ovarian tumor. She is previously well and complaints of dull aching pelvic pain for last six month. She sought medical advice from surgical specialist, her pelvic ultrasound scan reveals there is a 4.5 cm into 4cm solid right sided adnexial mass, lateral to the uterus. Her uterus and left sided ovaries visualized and looks normal. No free fluid in pouch of Douglas or no evidences for metastasis.

After she came to our clinic, our inward pelvic and abdominal ultrasound scan findings also compatible with previous findings. Her CA125 level was 10.1u/ml, which was in normal limit. According to her ultrasound findings and CA125 level, her Risk of Malignancy Index was 40.4, which indicates low risk of having malignancy.

As her pre-operative investigations normal and considering symptoms she have, treating team decided to go for an explorative laparotomy. Intra operatively bilateral atrophied ovaries and normal uterus identified. There was a yellowish solid lump located at right sided broad ligament close to the uterus. Clear surgical plane was achieved and surgical excision done specimen sent for histopathological examination. Histopathology report reveals, the randomly distributed mature fat cells and admixture of normal myocytes. There was no evidence of lipoblasts, mitosis, necrosis or angiomatosis. There was no cytological atypia in the spindle cells or adipocytes. Lipoleiomyoma was the diagnosis.

Discussion: Broad ligament lipoleiomyomas are difficult to diagnose preoperatively upon radiology and may be mistaken for an ovarian carcinoma. However, it is important to distinguish between these entities as broad ligament lipoleiomyomas can be treated conservatively with a lumpectomy.

CASE STUDY ON PRIMARY UMBILICAL ENDOMETRIOSIS

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Introduction: Endometriosis is a chronic benign condition. it is range from asymptomatic to severe debilitating condition. Depend of the location of ectopic endometrial tissue it's presentation entirely asymptomatic or severely affecting the quality of life. Primary umbilical endometriosis is extremely rare condition but its occurrence can cause severe cyclical umbilical pain.

A 47 years old woman with three children, attended Gynaecology clinic with the six month history of central abdominal pain. She is a known patient of type 2 Diabetes Mellitus, and in regular follow up. Her glycemic control is in targets. She having her periods regular but in last six months she experienced a cyclical pain in her umbilicus. Pricking type pain starting with her menstruation and last for around 10 days also she notice abnormal swelling in her umbilicus in those days. Umbilicus appears light blue color. All symptoms subsided after around 10 days of menstruation.

Examination reveals worm blueish nodular umbilicus with severe tenderness. Her umbilical ultrasound reveals a 2.1cm hypoechoic nodule in her umbilicus suggesting umbilical endometriosis.

Wide excision of the endometriotic tissue was done and sent for histopathology, histopathological examination report revealed fragments of connective tissue with irregular tubular structures surrounded by stromal cells. She was completely recovered in two months

Discussion: Endometriosis is a chronic benign disorder, 1 in 10 women in the reproductive age. The umbilicus may be an extraordinary site of endometriosis and is affected in 0.5-4% of

the women with endometriosis. Umbilical endometriosis mainly secondary but primary cases also reported in literature. The pathogenesis of primary umbilical endometriosis (PUE) is not fully elucidated. Pathogenesis of PUE could be due embryological ectopic retarded migration of endometrial cells. Secondary umbilical endometriosis is caused by iatrogenic dissemination of endometrial cells, for instance, after a caesarean section or laparoscopic operation.

In patients with a symptomatic umbilical nodule due to primary umbilical endometriosis, surgical exploration and excision of the nodule should be considered. Recurrence of primary umbilical endometriosis after thoroughly surgical excision is rare.

A CLINICAL CASE REPORT ON SPIGELIAN HERNIA, A COMPLICATION AFTER LAPAROSCOPIC OVARIAN CYSTECTOMY AND ADHENOLYSIS

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Introduction: linea semilunaris is defined by Adriaan van der Spiegel as a transition zone between the umbilicus and the aponeurosis of transversus abdominis and internal oblique. It is bordered by the ninth costal cartilage above and pubic tubercle below. Herniation of internal organs may occur at this point of junction between the linea semilunaris and the Douglas semicircular line, Josef Klinkosch was the first to describe it.

Mrs M, 44 years old married subfertile woman for 23 years, attended our gynaecological clinic with the history of pain and lumpiness in the flank. She is one of the regular follow up patient for pelvic endometriosis and subfertility. She is suffering from severe menorrhagia since her age of twenties. Her condition is refractory to medical management and she underwent two laparoscopic surgeries for ovarian cystectomy three years apart. After the last surgery she was symptom wise improved but last six months, she noticed a gradually increasing lump at her right sided flank and experiencing dull aching pain there.

Her abdominal and pelvic examination reveals a reducing solid lump at secondary laparoscopic port site which is located 2cm above and medial to the anterior superior iliac spine so the Spigelian hernia was suspected.

Her ultrasound abdomen and pelvis reveals bilateral moderate size ovarian endometrioma with a 1.5cm spigelian hernia. Hernia sac containing omentum only. Laparoscopic herniotomy and bilateral ovarian cystectomy was planned with the help of general surgeon. Hernia was successfully repaired without mesh repair but non absorbable swisher applied at hernia ring to prevent the recurrence.

Discussion: Out of all abdominal wall defects, incidence of Spigelian hernias is less than 2% in all cases and complication may occur only in 20% of all cases. Obesity, ascites, chronic constipation, multiple pregnancies, poor tissue quality, and peritoneal dialysis are may be the causes. The clinical diagnosis is more difficult due to uncharacteristic symptoms and signs, often confusing the clinician.

ACUTE ABDOMEN FOLLOWING OVULATION IN A PATIENT ON WARFARIN

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Introduction: Ovulation occurs at about the 14th day of the cycle, the distended follicle ruptures, and the ovum is extracted into the abdominal cavity. The follicle that ruptures at the times of ovulation promptly fills with blood, forming corpus hemorrhagicum. Minor bleeding from the follicle which enters into the abdominal cavity may cause peritoneal irritation and fleeting lower abdominal pain "mittelschmerz".

A 40 year old mother of 3 children underwent bilateral tubal ligation 5 years back, admitted to emergency unit with the history of lower abdominal pain associated with fever, vomiting, difficulty in breathing and gum bleeding for 3 days duration. She is a known rheumatic heart disease patient underwent mitral valve replacement, currently on oral 9mg warfarin daily. She is poor compliance to drug. She had right side embolic stroke on 2017. On examination she was mild dyspneic, severe pale, BP-100/60mmHg, PR-96bpm with distended abdomen with tenderness. She is having regular menstrual cycle. She had her last menstruation 14 days back. Her urine hCG was negative, FBC -Hb-6.9g/dL, WBC-14.45 and INR>10 and USS abdomen revealed moderate amount of free fluid. She underwent emergency laparotomy found to have a liter of altered blood within abdomen and a large clot around left ovary and left ovarian ovulatory side. Left ovary and tube was resected and sent for histopathology. Histopathology report revealed left ovary with a hemorrhagic corpus luteum and left fallopian tube within normal limits. She was given post operative ICU care, there she was given blood and FFB. Her INR was corrected to normal range and she was transferred to cardiology ward. On discharge her INR was 2.5. She was discharged with warfarin 6.5mg oral daily.

Conclusion: Evaluation of the patient with acute abdominal pain is sometimes difficult. Various factors can obscure the presentation, delaying or preventing the correct diagnosis. Clinicians must consider multiple diagnosis. We should consider rare causes of acute abdomen.

LARGE UTERINE LEOMYOMA ASSOCIATED WITH THROMBOSIS IN PELVIC & LOWER LIMB DEEP VEINS IN AN UNMARRIED LADY

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Introduction: Uterine leiomyoma is defined as a benign tumor of uterine smooth muscle. Most of leiomyoma are asymptomatic. But others give symptoms such as menorrhagia, metrorrhagia, pressure symptoms, and dysmenorrhea. The complications, related to uterine leiomyoma are thrombo-embolism, deep vein thrombosis, acute torsion of sub serosal pedunculated leiomyoma, acute urinary retention, renal failure, red degeneration during pregnancy, mesenteric vein thrombosis and intestinal gangrene.

Case: A 28 years old, previously healthy, unmarried lady Presented with gradually onset left lower limb swelling, pain and mild lower back pain for 2 days. She had no history of abdominal pain, orthopnea, shortness of breath, exertional dyspnea and chest pain. On examination, firm, 20 weeks sized, pelvic origin rounded mass was found in lower abdomen with having generalized left lower limb swelling and tenderness over the left calf and left thigh. Right lower limb was normal. Her hemoglobin was 7.6 g/dl, managed with iron rich diet and hematinic and picked up to 8.6 g/dl. Other investigations revealed iron deficiency anemia with normal platelets in blood picture and normal liver function test, renal function test and 2D echo. Ultrasound scan of pelvis showed 20cm*15cm*15cm sized intramural fibroid with normal bilateral ovaries. Pelvic and lower limb duplex revealed persistent deep vein thrombosis involving left common iliac, external iliac, femoral and popliteal veins. CT venogram showed IVC compression by a large benign mass arising from the pelvis, thrombosis of left common iliac, external iliac, femoral, Proximal part of superficial femoral veins and thrombus extending to proximal popliteal vein. Warfarin was started after hematologist opinion. Multi-disciplinary team decided IVC filter insertion and uterine artery embolization. IVC filter was successfully inserted but uterine artery embolization failed. Open myomectomy was performed on day four after insertion of IVC filter without complication. She was discharged with warfarin in one week after surgery. Histology of specimen came as leiomyomata. IVC filter retrieval was successfully done after 6 weeks of its insertion.

Conclusion: Multi-disciplinary approach is important and worth. MRI (magnetic resonance imaging) scan is the best modality of imaging compared to Transvaginal scan for UL mapping and identification. (8) Uterine artery embolization (UAE) is one of best treatment option for fibroid alternative to surgical myomectomy. It has advantages of shorter hospital stay, less and fewer severe adverse effects and similar rates of technical and clinical success. But it's important to be alert on complication such as thrombo-embolic events, uterine infections, uterine ischemia, uterine necrosis, soft tissue necrosis, chronic vaginal discharge, expulsion of fibroid tissue and ovarian and sexual dysfunction (9) Non-permanent IVC filter insertion is a prophylactic option for prevention of emboli shooting during surgery. Nevertheless, IVC retrieval should be done after surgery, otherwise thrombus tends to form along the IVC and worse the condition. (10) If large leiomyoma is there with symptoms suggestive of DVT, Oral contraceptive pills and oral tranexamic acid should not be prescribed until DVT is excluded. Otherwise, these pills may worsen the condition.

BICORNUATE UTERUS – PRESENTING WITH CONTINUOUS VAGINAL BLEEDING

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Introduction: Only 3%-5% of the general population is estimated to have congenital uterine malformations, of which 25% are due to bicornuate uterus.

Case: A 30 year old unmarried female, complaining of continuous vaginal bleeding from menarche, underwent laparoscopy at a tertiary care hospital which revealed bicornuate uterus and

polycystic ovaries. Laparoscopic abdominal aspiration of the haematocolpus was carried out and ovarian drilling was done by a previous carer. She, now a married, presented on 3rd May 2018, with continuous bleeding per vagina for the last 2 months. Speculum examination revealed a normal cervix with right side rudimentary horn continuous with the cervix. Uterus was felt above the haematocervix. Cervical dilatation done and 300ml of altered blood was aspirated. Her menstruation was suppressed with GnRH analogues while awaiting hysterosalpingogram.

Discussion: The fusion of the caudal vertical parts of the paramesonephric duct gives rise to the uterus. At first a septum persists within the lumen of the uterine tube which later disappears leaving a single uterine cavity. Defective fusion of the paramesonephric ducts or failure of absorption of the septum gives rise to several types of congenital uterine abnormalities. Bicornuate uterus is when the fusion of the upper part of the paramesonephric ducts is defective.

Recurrent miscarriages, cervical incompetence, subfertility, miscarriage, ectopic pregnancy, preterm labour, IUGR, abnormal placentation, malpresentation, labour dystocia are identified as obstetric complications of bicornuate uterus.

Abnormal uterine bleeding, mainly menorrhagia and dysmenorrhoea are the gynaecological problems.

2D ultrasonography and or hysterosalpingography can only be used as screening tools. 3D ultrasonography, sonohysterography, combined hysteroscopy and laparoscopy are used for a definitive diagnosis. MRI is the most reliable method for evaluating females who have never had sexual intercourse.

Incidental detection of uterine abnormalities in asymptomatic women does not warrant therapeutic intervention. However if symptomatic, such as subfertility or recurrent miscarriage, surgical treatment is the gold standard. Strassman uteruloplasty operation with a transverse fundal incision for reunification of the uterine cavity is the surgery performed but hysteroscopic surgery has come to the forefront now.

This sort of patient may have fertility issues in addition to her menstrual problems owing to possible future development of endometriosis. In addition, musculoskeletal and renal abnormalities need to be excluded.

MELENEY'S SYNERGISTIC GANGRENE IN A POST HYSTERECTOMY PATIENT

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Introduction: Meleney's synergistic gangrene is a spreading, infectious gangrene of skin and subcutaneous tissues usually begins around retention sutures after abdominal operations. It occurs as a result of bacterial synergism between microaerophilic non haemolytic streptococci and haemolytic staphylococcus aureus and affects the skin and subcutaneous tissues sparing the deep fascia except in advanced cases. The ulcers that form at the center of the lesion are usually covered by a black eschar and encircled by a gangrenous margin. The key to recovery is early identification of the infection and prompt treatment.

Case report: 40 yr old mother of one child, who has diabetes mellitus, dyslipidemia and obesity presented with heavy menstrual bleeding for 2 yrs which was associated with secondary dysmenorrhea. A diagnostic hysteroscopy revealed a posterior wall submucosal fibroid and a diagnostic laparoscopy showed adenomyotic uterus with severe endometriosis. Since she didn't have fertility wishes she was put on menstrual suppression with norethisterone. As the medical treatment failed to control her symptoms surgical management was planned.

While she was awaiting surgery, her blood sugar control worsened and she had been treated for perineal infection associated candidiasis. After optimizing blood sugar a total abdominal hysterectomy and left oophorectomy was done. During post op day 04 her surgical wound was found unhealthy so a microbiologist opinion was taken regarding antibiotic of choice and started with piperacillin tazobactam but omitted due to reaction then changed ciprofloxacin and flagyl. Blood sugar control was marginal even with two antihyperglycaemic drugs and insulin. Except severe pain in surgical site, she was stable. Wound swab culture was positive for coliforms. Post op day 08 wound became blackish discoloration at periphery with necrotic around central area, adjacent skin developed superficial blisters and there was foul smelling serous discharge. A repeat swab culture showed streptococcus aureus sp. and co-amoxycylav was added. A Surgical site necrotic tissue excision with refashioning was done and wound was kept open partially. Haemoglobin and blood sugar was optimized. The wound became dry, surrounding edema resolved and necrotic margins were well demarcated. She was discharged after closing the remaining part of the wound.

Discussion: Although Meleney's gangrene is a rarely seen in nowadays, it could still occur in susceptible patients, particularly in poorly controlled diabetes and obesity. It is different than the necrotizing fasciitis as later is a rapidly progressing widespread infection affecting deep tissue layers. Early identification and treatment with appropriate antibiotics will ensure good outcome.

A CASE REPORT ON AGGRESSIVE ANGIO-MYXOMA OF VULVA

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Introduction: Aggressive Angiomyxoma (AAM) is a rare mesenchymal neoplasm arising primarily in the soft tissue of the pelvis and perineum of adults. It is slow growing with high rate of local recurrence, therefore wide local excision followed by long term surveillance is advised. They found to have progesterone and estrogen receptor and therefore they are hormone sensitive hence they tend to grow during pregnancy and respond to hormonal manipulation.

A 40 yrs old mother of two children who first noticed a 5 mm size small growth on lateral aspect of the left labia majora at 2010. Since then it slowly increased in size, at 2015 it became 2 cm sizes and gave some discomfort while sitting. She was told by the GP that, it is a skin tag and no need to intervene but the

size further increased to about 4 cm in the following year. On examination there was a 3cm × 4cm size skin growth, found just lateral to the left labia majora. It has a narrow base which was connected to the perineal skin and from the base rest of the lesion expanding like a funnel shape growth. It was freely mobile, soft in consistency and there wasn't any bleeding, ulceration, local lymphadenopathy or discharge associated with it. Vaginal examination was found to be normal and other all systemic examination were normal

Local excision of the lesion was made and histopathology report came as hyperplastic squamous epithelium free of dysplasia, the stroma is myxoid and reveals haphazardly arranged bland spindle cells, there are scattered thin wall blood vessels compatible with Aggressive Angiomyxoma and the lesion present at the excision margin. Patient was readmitted to the ward and counseling done regarding the condition, a wide local excision was done thereafter and subsequent report doesn't reveal any lesion at the excision margin.

Discussion: Aggressive Angiomyxoma is an uncommon benign tumor that occurs predominantly in females involving pelvic and perineal areas. The pathogenesis of this tumor is unclear. It is usually mistaken for other vulval lesions such as Bartholin's cyst, skin tag etc. Wide surgical excision is by far the most accepted treatment modality. The use of hormonal treatments with raloxifene, tamoxifene and GnRH agonists for residual and recurrent disease has also been suggested. The local recurrence rate for aggressive angiomyxoma is about 30- 40% and can occur after 10-15 years of primary excision.

EFFECTIVENESS OF MISOPROSTOL IN THE MANAGEMENT OF MISCARRIAGES, IN PATIENTS ADMITTED TO TEACHING HOSPITAL MAHAMODARA

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Introduction and objectives: In Sri Lanka medical management with misoprostol is considered as the main way of managing miscarriages since 2017. To the best of authors' knowledge no study has been conducted to evaluate the effectiveness of misoprostol in miscarriages in the country. Therefore, this study was conducted to evaluate the effectiveness of using misoprostol in the medical management of miscarriages at Teaching Hospital Mahamodara (THM).

Methods: A cross-sectional study was conducted recruiting all the patients who received misoprostol in managing miscarriages in all three wards of THM. Data on drug dose, outcomes and adverse effects were obtained by a pre-tested questionnaire. Patient satisfaction was assessed using a separate short questionnaire. Diagnosis of a complete miscarriage was based on the ultrasound scan judgment of the attending obstetrician. An endometrial thickness of 15mm was considered as the cut off value for a complete miscarriage.

Results: Of the 181 women recruited to the study, mean age was 32 years (SD = 5) years. Treatment of misoprostol was successful in 54% (101) of the patients without further needing surgical evacuation. Among them, nine patients needed the second dose of misoprostol. Mean cumulative dose of misoprostol was 661mg (SD = 210mg). Adverse reaction due to misoprostol was reported in 6.4% of patients. Of twenty six (13.9%) patients who got side effects, abdominal pain and uterine contractions were the most frequent. Satisfaction rate of 23 was reported and only 60 (32.1%) patients were willing to receive misoprostol as a treatment choice in future miscarriages.

Conclusions: Misoprostol is well tolerated drug in the management of miscarriages even though the success rate was not that remarkable.

A CASE OF POSTMENOPAUSAL HYPERANDROGENISM OF OVARIAN ORIGIN

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Background: Hyperandrogenism of ovarian origin is an unusual cause of virilization in women. They typically present with a long history of slowly progressive symptoms of virilization. The diagnosis is confirmed histologically demonstrating steroidogenically active luteinized stromal cells throughout the ovarian stroma. Surgical therapy has been reported to be effective at reducing virilism and normalization of biochemical parameters.

A 61-year old menopausal woman with a history of increased growth of facial hair and deepening of voice was referred to the professorial unit in Obstetrics and Gynaecology at Colombo South Teaching Hospital for laparoscopic bilateral salpingo-oophorectomy. She is a known patient with long standing diabetes mellitus, hypertension, dyslipidaemia and poorly controlled hypothyroidism. On physical examination there was hirsutism, male type body habitus and clitoromegaly. The laboratory findings included: elevated serum testosterone 3.02 ng/ml (normal 0.03-0.401); normal prolactin, dehydroepiandrosterone, 17-hydroxyprogesterone, TSH levels and normal oral dexamethasone suppression test. An abdominal CT scan and pelvic ultrasound excluded tumours of ovarian or adrenal origin. At laparoscopy, slightly enlarged pale ovaries were found and she was treated by bilateral salpingo-oophorectomy. Pathologically, right ovary measured 30 × 20 × 15mm and left ovary of 34 × 20 × 14 mm in size. It contained diffusely scattered cords and nests of eosinophilic, polygonal cells, some of which show cytoplasmic vacuolation. In some areas the cell nests are surrounded by sclerotic stroma suggestive of luteinized stromal hyperplasia of the both ovaries with no evidence of malignancy. Following bilateral adnexectomy, her testosterone levels returned to normal and her virilization regressing slowly.

Conclusion: Luteinized ovarian stromal hyperplasia occasionally causes virilization in postmenopausal women. Bilateral oophorectomy offers definitive treatment in patients with postmenopausal ovarian hyperthecosis.

VESICULAR ENDOMETRIOSIS – AN ATYPICAL PRESENTATION – MIMICKING A HYPER STIMULATED OVARY – A CASE REPORT

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Introduction: Atypical endometriosis in the form of clear and serous vesicles are rare. When these large and numerous vesicles are attached to the ovary, it mimic a hyper stimulated ovary on ultra sound scan.

Case report: A twenty six year old nulliparous woman with primary subfertility for three years presented with intermittent lower abdominal pain for one week duration. She had regular cycles and secondary dysmenorrhea for the past four months duration. There was no urinary symptoms, dyschezia or dyspareunia. Ovulation induction had being performed four months ago. She had no comorbidities or surgeries in the past. She was haemodynamically stable, abdomen was soft with tenderness over pouch of Douglas (POD) and bilateral adnexa on vaginal examination. Uterus was normal in size and mobile. Transvaginal scan (TVS) showed radiolucent fluid filled, thin-walled, cystic lesions of varying sizes (largest 30mm) occupying POD and bilateral adnexa, similar in appearance to hyper stimulated ovaries. There was no free fluid. Initial diagnosis of ovarian hyper stimulation syndrome was made due to ultrasound appearance. Blood investigations were normal and urine hCG was negative.

Diagnostic laparoscopy was performed due to persisting symptoms following menstruation. There were clear and serous fluid filled vesicular endometriosis of different sizes occupying POD. Flimsy adhesions of left side fallopian tube to the lateral pelvic wall were seen with thickening of the uterosacral ligaments. Excision of all endometriotic deposits and adhesiolysis done. Both tubes and ovaries were free and bilateral tubes were patent to dye. Histopathology confirmed the diagnosis of endometriosis.

Postoperatively she was treated with GnRH antagonist for three months. She conceived during her first cycle of ovulation induction.

Discussion: Endometriosis has different morphologic types. Atypical lesions of serous or clear vesicles, indicate early active disease.

Vesicular endometriosis, when large enough could be easily seen on TVS as homogenous, multiple, thin walled cysts of varying sizes. Ultrasonic feature of hyper stimulated ovarian syndrome (OHSS) shows bilateral enlarged ovaries, with multiple cysts of varying size which can totally replace the ovary and when large enough can occupy the entire POD.

Vesicular endometriosis could mimic a hyper stimulated ovary, mislead the diagnosis especially in subfertile women treated with ovulation induction. Careful history and biochemical assessment will rule out OHSS. Diagnosis of early endometriosis and treating, improve the fertility outcome.

ACUTE ANTEVERSION OF UTERUS FOLLOWING CAESAREAN SECTION WITH POSTERIOR COMPARTMENT DEFECT CAUSING ENTEROCELE

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Caesarean section (CS) is the most common surgery performed by obstetricians. Women with past section develops a prolapse, repair surgery will be difficult due to adhesion formation between uterus and anterior abdominal wall, bladder and adhesion of the uterus to anterior abdominal wall will result in acute anteversion of the uterus, which can result in weakening of support to the apical region of the vagina (De Lancy 1). We present 2 cases with posterior compartment prolapse with acute anteversion of uterus due to dense anterior abdominal wall adhesions to uterus.

Case Description

Case1

A 42 year old premenopausal women with a previous one caesarean section due to fetal distress in addition to having vaginal deliveries, presented with lump at vulva for one year duration with worsening constipation, which required digitation. Her POP-Q assessment was 4 with only posterior compartment prolapse. Her vaginal examination revealed fixed uterus with acute anteversion.

Ultrasound scan showed normal size uterus with no pelvic masses. She underwent enterocele repair and posterior colporrhaphy. The post-surgical POP-Q was 0. In one month review patient was satisfied with surgery.

Case2

A 36 year old woman with a previous caesarean section presented with lump at vulva. Other than episodic abdominal pain she did not have any urinary or bowel symptoms. Her POP-Q assessment was 2 with only posterior compartment prolapse. Her vaginal examination revealed acutely anteverted fixed uterus.

As ultrasound scan showed a right adnexal mass during pre-operative assessment it was decided to offer her diagnostic laparoscopy and enterocele repair.

After a difficult entry in to the peritoneal cavity it was noted that the uterus was tightly adhered to anterior abdominal wall. Adhesiolysis was done and proceeded for enterocele repair. POP-Q score was 0 after surgery. We reviewed patient after 1 month and she is satisfied with the surgical outcome.

Conclusion: The risk of pelvic organ prolapse (POP) has become one cause for women requesting elective CS. Dense adhesions of uterus to the anterior abdominal wall causes deformation of natural supports of the uterus which may form a defect in the posterior compartment giving rise to enterocele formation.

This should be identified as an upcoming gynecological challenge and it may be prudent to perform a diagnostic laparoscopy prior to enterocele repair if the patient has a past CS and vaginal examination reveals acutely anteverted uterus.

RECURRENT DEEP VEIN THROMBOSIS ASSOCIATED WITH LARGE MYOMA

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Introduction: Fibroid is a common gynecological problem. Deep vein thrombosis and pulmonary embolism are rare complications of fibroids. It is well known that large fibroids especially more than 1000gms is associated with deep vein thrombosis. But association with pulmonary embolism versus weight of the fibroid has not been studied. Multidisciplinary approach in preoperative and post-operative management is needed for standard individualized care.

Case 1: A 42 years old patient presented with fever and right lower limb swelling diagnosed to have deep venous thrombosis and started on unfractionated heparin (Enoxaparin), which was subsequently converted to warfarin. Ultrasound examination revealed a multiple fibroid uterus of 20 x 18cm size. She was transferred to tertiary care unit for removal of fibroid uterus, which was identified as the provoking factor for pelvic vein thrombosis. Her international nomenclature ratio was 0.9 at the time of transfer. She was planned to convert warfarin to heparin before surgery. While optimization of anticoagulants, she developed hospital acquired dengue hemorrhagic fever and anticoagulation drugs withheld until recovery (7days).

Plan was made after discussion with vascular team to defer surgery for 3 months. She had uneventful home stay for 3 months with oral anticoagulant drug (warfarin 7mg). She was readmitted for surgery and repeat scan showed deep vein thrombosis extended to contralateral in external iliac, femoral and popliteal veins.

IVC filter was inserted by interventional radiologist as decided by vascular and hematology teams. She underwent abdominal hysterectomy and bilateral salpingectomy with midline incision. Weight of the fibroid was 2.5 kg. Post-operatively anticoagulation started.

Her recovery was uneventful and discharged with INR of 2.5 with warfarin 9mg. Histology revealed multiple leiomyomata with degenerative changes.

She underwent thrombophilia screening 3 months after surgery which came negative. Oral anticoagulation was planned for 6 months.

Conclusion: Deep vein thrombosis due to fibroids could be asymptomatic and recurrent. Type of the surgery and timing of the surgery has to be determined by multidisciplinary approach. Screen patients for DVT at the time of diagnosis of fibroids and starting them on anticoagulation may prevent catastrophic event. Implementation of guidance to management of such cases requires more evidence which can be achieved by reporting such cases.

A CASE OF LABIAL ADHESIONS FOLLOWING PRIMARY GENITAL HERPES INFECTION

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Introduction: Genital Herpes is one of the common sexually transmitted diseases in Sri Lanka. Although, the labial adhesions usually associated with hypo-oestrogenism, it may occur as a rare complication of Genital Herpes infection. Here we present a case of almost complete thick band labial adhesions following Genital Herpes infection.

Case Report: A 23 year old nulliparous woman presented with vulval pain, dysuria and fever for two days. On vulval examination she had extensive, multiple, painful genital ulcers with some blistering lesions over both labia majora and minora. She had been in a monogamous relationship with the partner, with last sexual exposure about 10 days prior to the development of ulcers. Presumptive diagnosis of primary genital herpes was made on clinical manifestations. She was treated with 7 days course of oral Acyclovir. Ten days later she presented with a complaint of narrowing of the vaginal introitus and dysuria. On examination vulval lesions were in the partial remission and there was thick band of adhesion on the upper two third of labia minora with multiple scars of healing ulcers on either side. Manual separation of adhesions was not attempted due to tense nature of the adhesions. Surgical separation of labial adhesions was done under general anesthesia. After two weeks she made complete remission of Genital herpes ulcers and there were no further labial adhesions. A further follow up appointment was arranged in three months.

Discussion: Labial adhesions are not common among women in reproductive age who are having well oestrogenised vulva, in comparison to prepubertal and postmenopausal women with less oestrogenised vulva. Labial adhesions are rare, but severe form of local complication of genital herpes infection. The formation of labial adhesions can be prevented by early treatment with adequate dose of oral acyclovir. Gentle application of local anaesthetic over the labia minora alleviates pain and prevents labial adhesions formation in patients with genital herpes. The usual solution for adult labial adhesion following genital herpes infection is surgical adhesiolysis. Manual separation of the labia under application of local anaesthesia can be considered in patients who have less dense adhesions. This is the first published material in Sri Lanka on this matter. The importance of this report is to maintain the vigilance among health care providers about this rare complication as Genital Herpes infection is a very common sexually transmitted infection in Sri Lanka.

A CASE REPORT ON RARE SYMPTOMATIC BROAD LIGAMENT LEIOMYOMA IN A POSTMENOPAUSAL WOMAN

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Introduction: Leiomyoma is the most common solid tumour of broad ligament. When uterine smooth muscle invade into broad ligament, it is called broad ligament leiomyoma. Prevalence of broad ligament leiomyoma is less than 1% and it is decreases after menopause. It is rare for broad ligament leiomyoma to be symptomatic in postmenopausal women. If bimanual examination reveals an adenaxaeal mass, differential diagnosis of broad ligament leiomyoma should be considered.

Case report: A 60 years old postmenopausal woman with three children, presented with severe right side abdominal pain associated with fever for three days duration. She had increased urinary frequency and urgeincontinence with no history of postmenopausal bleeding. She had undergone appendicectomy. On abdominal examination there was severe right iliacfossa tenderness. Bimanual examination revealed right side soft, tender adenaxaeal mass with normal size uterus.

She was investigated for continuous fever spikes. She had high C-reactive protein (CRP), normal blood and urine cultures and negative sputum smear for AcidFast bacilli. CA125 level was normal. Ultrasound scan pelvis showed well-defined mass of 13.5cm×8.5cm×10cm with cystic and solid areas mainly arising from the right side of uterus with normal uterus and ovaries. An exploratory laparotomy was performed. There was large semisolid irregular mass found within the right side broad ligament. Mass was removed and total abdominal hysterectomy with bilateral salphingo-oophorectomy were done.

Postoperatively she improved clinically and CRP became normal. Histology confirmed right side benign leiomyoma with features of acute suppurative inflammation with no evidence of cellular atypia, and uterus, cervix, bilateral tubes and ovaries were normal with no evidence of malignancy.

Discussion: Broad ligament leiomyoma rarely becomes symptomatic in postmenopausal women. In this case leiomyoma was associated with suppurative inflammation which justifies high CRP. As it was complicated with infection and suppuration it became symptomatic. Otherwise most of the postmenopausal leiomyomas would be unnoticed. After definite removal of mass her clinical and biochemical parameters became normal.

Conclusion: Although rare, broad ligament leiomyoma might occur in postmenopausal women. They can grow to any size when neglected even in the presence of oestrogen deficiency. They should be considered as differential diagnosis of adenaxaeal mass. Unilateral lower abdominal pain is a common presentation of suppurative leiomyoma in postmenopausal women. This highlights the importance of considering alternative diagnosis for abdominal pain.

A POSTMENOPAUSAL WOMAN WITH BILATERAL OVARIAN SEROUS CYSTADENOFIBROMA

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Introduction: Adenofibromas are relatively rare benign tumours with extremely rare malignant potential, arising from the germinal lining and ovarian stroma. The majority of the reported adenofibromas are of serous type. However, endometrioid; clear

cell and mucinous types also exist. Usually occurs during the fourth and fifth decades.

Case Report: A 73-year-old, mother of 5 children, postmenopausal woman was referred from medical clinic for the management of ovarian cyst which was diagnosed while evaluating for loss of appetite and loss of weight. She is a known patient with hypertension and pelvic kidney. Her bowel and bladder habit was normal. There is no history of postmenopausal bleeding.

General examination was normal. Abdominal examination revealed a mobile, firm, non-tender pelvic mass corresponding to 14-weeks size gravid uterus. On vaginal examination, 14 weeks size pelvic mass with obliteration of adenexiae. Papanicolaou smear was normal.

Ultrasound scan revealed atrophic uterus with endometrial thickness of 2 mm. There was a multilocular, thin smooth walled left adnexal cyst with clear anechoic contents measuring around $10 \times 7.3 \times 10.5$ cm and right side ovary with 2×1.8 cm simple cyst on ultrasound scan. There was no free fluid. CA 125 was 5.5 U/ml and calculated RMI (risk of malignancy index) was 45.

She underwent total abdominal hysterectomy, bilateral salphingo-oophorectomy with infracolic omentectomy by considering her age and menopausal status. There were atrophied uterus with left side lobulated ovarian cyst with solid area measuring 10×10 cm. Right ovary and bilateral tubes looked normal. There were no ascites or evidence of metastasis. Histology revealed bilateral serous adenofibroma of ovary with normal tubes and omentum.

Discussion: Serous cystadenofibroma of ovary usually presents with sign and symptoms, such as abdominal pain, vaginal bleeding and mass in the abdomen. Many such tumours show no signs and symptoms and are usually detected incidentally.

Ovarian cyst was diagnosed incidentally while investigated for constitutional symptoms. We did not perform computerized tomography (CT) scans or magnetic resonance imaging (MRI), as the ultrasound scan findings were suggestive of a benign cyst with RMI score of 45.

The prognosis of benign serous cystadenofibroma of ovary is excellent with surgical treatment. They have a very low recurrence risk after complete removal.

CASE REPORT: A RARE CASE OF PARASITIC LEIOMYOMA

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Introduction: A parasitic leiomyoma is considered as a type of extra uterine leiomyoma and presents as peritoneal pelvic benign smooth muscle masses separate from the uterus. It likely originates as a pedunculated sub-serosal leiomyoma that twist and tore from its uterine pedicle. It is an extremely rare variant of uterine leiomyoma occurring outside the uterus.

Case: A 36 year old unmarried lady presented with on and off generalized mild abdominal pain. She has undergone laparoscopic

myomectomy one year back for fibroid uterus not responding to medical therapy. The previous operative findings have revealed an enlarged uterus with multiple fibroids. The largest fibroid was intramural, measuring 10×10 cm in size in the fundal region with 2 other fibroids, one intramural 6×4 cm size fibroid over the anterior wall and the other one 4×4 cm size sub-serosal fibroid. She was investigated for chronic pelvic pain. Abdominal ultrasound showed normal size uterus with 2.5×2 cm anterior lower uterine fibroid and small posterior wall fibroid. Abdominal computed tomography scan showed suspected dermoid tumour of small bowel mesentery or suspected gastrointestinal stromal tumours arising from upper small bowel. Diagnostic laparoscopy was performed and found to have a parasitic fibroid, 5×5 cm size at the right hypochondrial region just underneath the liver. Blood supply to the fibroid was derived from the anterior abdominal wall and the omentum. Fibroid was released from the surrounding adjacent organs and removed via the endobag after cutting into small pieces and specimen was sent for histopathology. Histopathology confirmed the leiomyoma.

Conclusion: Parasitic leiomyoma is an extremely rare subtype of uterine leiomyoma, presents with vague symptoms and the diagnosis is challenging. The management is usually careful resection from the surrounding structures and removal of the leiomyoma. There is a possibility of a left piece of myoma during laparoscopic myomectomy which would have been removed by morcellation.

A RARE CASE REPORT OF SWYER SYNDROME

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Introduction: Gonadal dysgenesis, also known as Swyer syndrome is a disorder of sexual differentiation. This is a rare condition with a incidence of 1:100,000. Though they have a 46XY karyotype they present with female external appearance, female external and internal genitalia with streaky gonads. 10-15% of them have a mutation in the SRY gene while rest of the cases are due to mutations in several other genes involved in sexual differentiation pathway. This condition leads to family and social conflicts.

Case Description: A 19 year old female presented to gynaecology clinic for further evaluation of primary amenorrhoea. Examination revealed a female phenotype with a height of 158cm, weight of 36kg and BMI of 19 kg/m^2 . Her breast development was Tanner stage II and pubic hair development was stage IV. She had female external genitalia. Her blood investigations revealed increased FSH (81mIU/mL), normal LH (19mIU/mL) and testosterone of female range (0.536nmol/L). USS and MRI did not reveal uterus or gonads. Karyotyping was 46, XY.

Laparoscopy showed an atrophic uterus, bilateral tubes and streaky gonads. Bilateral salpingectomy and gonadectomy done. Histology revealed testicular tissue with sertoli cells without germ cells. Examination under anaesthesia found vagina with a good length and narrow introitus. She was counseled and started on Hormone replacement therapy and plan was given to review for vulvoplasty when she wishes to become sexually active.

Discussion: SRY gene which is located in the Y chromosome is responsible for the production of SRY region associated protein. This protein is responsible for activation of several other genes, all of which act in collaboration for the development of internal and external male genitalia. Mutations in them results in development of female external genitalia with rudimentary female internal structures. Early diagnosis is necessary to perform gonadectomy to prevent future development of malignancy. Hormone replacement therapy should be commenced early for the development of internal organs and to prevent bone changes. Proper counseling regarding the condition and a multidisciplinary action plan should be organized for these patients.

Conclusion: Primary amenorrhoea in adolescent girls should be investigated with karyotyping and counseling should be considered as a part of the treatment in Swyer syndrome.

A CASE REPORT OF ENDOSALPINGIOSIS OF UTERINE SEROSA

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Introduction: Endosalpingiosis is a non-neoplastic lesion of Mullerian system, which is rarely found. It describes ectopic growth of Fallopian tubal epithelium, these cells can be found in the peritoneum, tissue of subperitoneal, omentum, retro-peritoneal, urinary vesicles, can even be found in other organs outside the pelvic as in the thoracic region, duct choledochal and in the axillary lymph nodes. Diagnosis is confirmed by histopathological examination.

Case Report: A 42-year-old mother of 2 children presented with a history of abnormal uterine bleeding and chronic pelvic pain of 1 year duration. General examination was normal. There was 18 weeks size non-tender uterus and normal adenexiae on pelvic examination.

Ultrasound findings were fundal fibroid of 7×6 cm with right side haemorrhagic ovarian cyst of 2×2 cm. CA125 was 6.6U/ml with risk malignant index of zero.

Total laparoscopic hysterectomy and cystectomy was performed as she was not responded to medical management. There were 16-18 weeks size fibroid uterus, normal tubes with right side simple ovarian cyst of 2×2 cm. Histology revealed leiomyomata of uterus, foci of adenomyosis with uterine serosal endosalpingiosis and simple serous cyst of the ovary.

Discussion: Endosalpingiosis is a benign lesion. The symptoms complained depend on the location of the lesion; generally, presented with chronic pelvic pain, infertility, irregular menstruation, dyspareunia, gross haematuria, gastrointestinal tract obstruction, and jaundice. The diagnosis is confirmed by histology.

As it is generally asymptomatic and has never been undergo a malignant transformation, treatment is not necessary. In this case we performed total laparoscopic hysterectomy for the indication of failed medical treatment for abnormal uterine

bleeding. Routine follow-up is not necessary as there is no risk of recurrence or malignant transformation.

Theme 10 SDG's and Women's Health

ACUTE UTERINE PROLAPSE DURING PREGNANCY

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Introduction: Pelvic organ prolapse (POP) during pregnancy is a rare but morbid condition occur in women. It's seen more frequently in low resource countries. Even though no causative factors described specifically for uterine prolapse in pregnancy there may be association between malnourishment and high parity as in any POP.

Case: A 38 years old pregnant women gravid 5, para 4, presented to the ward at 32 weeks of gestation with painful lump at vulva for few hours. Her previous 4 deliveries was uncomplicated and age of the last child was 10 years. There was no history of pelvic organ prolapse before or after this pregnancy. On examination there was prolapse of 5cm beyond the hymen (POP Q-4), as shown in figure 1. There was ulceration and edema.

Her prolapsed cervix was replaced into the vagina and vaginal pack immediately for pain relief. Fetal assessment by ultrasound and cardiotocography was normal. Steroids and antibiotic were administered. Vaginal ring pessary was inserted after few hours when it was available. Her vaginal swabs came negative and she was discharged after 3 days with pelvic floor exercises and high protein diet.

She readmitted after 2 week with pessary coming out of her vagina with odema and ulceration of the cervix. New pessary was reinserted and vaginal cultures were sent. She was advised for bed rest and pelvic floor physiotherapy continued. Gradually prolapse was reduced and discharged at 36 weeks. Then she had uneventful antenatal period. She got readmit again at 40+3 weeks. Cervical assessment on admission was unfavorable and decided for elective caesarean section and ligation and resection of tubes. She delivered healthy baby of 2.7kg and discharged. No POP at the time of discharge.

She was reviewed in the clinic in 1 month, no POP on examination and new pessary was inserted and planned to review every 6 months.

Conclusion: Pregnancy with POP is common that POP during pregnancy .It is associated with preterm labour uterine rupture, fetal and maternal morbidity. Conservative management is successful in many cases including bed rest, pelvic floor exercise and pessaries. No clear consensus about management due to rarity of the cases. So individualized management is the best current option. Long term follow up and reporting on the cases is mandatory.

Theme 11

Risk Management and Clinical Governance

A CLINICAL AUDIT ON KNOWLEDGE, ATTITUDE AND PRACTICE OF STAFF IN LABOUR PAIN MANAGEMENT

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Introduction: Obstetric care provided in Sri Lanka is standardized to the level that is closer to the developed countries. Pain management during labour is an important aspect of the obstetric care and poor management of pain during labour will result in maternal exhaustion leading to acidosis, dysfunctional labour, fetal distress, loss of morale and a negative birth experience could have significant long term effects.

Objectives: To assess the knowledge, attitude and practice of staff in labour pain management and to check the adherence of the practice according to the national guideline.

Method: The audit was conducted during the month of March 2017, at ward 22 Teaching Hospital Jaffna, all staffs including doctors, nurses, midwives were given the self-administered questionnaire, prepared based on the recommendations in the national guideline for labour pain management.

Results: In this audit 18 staffs responded. There were 5 non-pharmacological pain relief methods given. Over all they didn't practice the non-pharmacological method due to lack of resource and training but 83% (n=15) agreed that the non-pharmacological method has a value in labour pain relief. Among the pharmacological methods, 89% (n=16) of the staff know that simple analgesics such as paracetamol and panadine can be used as pain relief and among this nearly 83% (n=15) stated that they practicing these drugs. Most of them knew about pethidine and its dosage. 39% (n=7) 11% (n=2) knew fentanyl and morphine can be used as labour pain relief and no body practice that. Nearly 44% (n=8) of them knew entonox as a labour pain relief. Most of them knew about Epidural but is not practiced routinely. Regarding factors which limits the pethidine use, 78% (n=14) of them stated, worrying about side effects, 22% (n=4) stated, difficulty in finding the correct time, 11% (n=2) stated, problem in who is going to order the drug. 95% (n=17) of them knew that why naloxone is used. 55% (n=10) 78% (n=14) knew the dose of naloxone and route to be used respectively. Among them 66% (n=12) of the staff knew about the national guideline for maternal care.

Conclusion: This audit demonstrated that most of the staff knew about the non-pharmacological and pharmacological methods but they are not using it either due to lack of skills or unavailability of method. Proper training sessions to all staff will improve their skills and knowledge on the available methods and will make them more adherences to the national guidelines recommendation hence improve the quality of pain management in labour.

AUDIT ON INDICATIONS FOR CAESAREAN SECTIONS

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Introduction and objective: Over the past 25 years, rising rate of caesarean section has become a global concern. World Health Organization considers that there is no justification for any region to have Caesarean Section rates higher than 15%. In Sri Lanka Caesarean Section rates have increased from 9% in 1986 to 14.4% in 1999 and currently maintaining around 30%.

The objective of this study was to assess compliance with NICE guidelines (2004/2011) on the indications for Caesarean Sections performed at Teaching Hospital Peradeniya and to encourage the medical staff to adhere to guidelines when making decisions, thus reducing Caesarean Section rate.

Methods: This was a retrospective audit carried out at the two obstetric units of Teaching Hospital Peradeniya, regarding Caesarean Sections performed during March 2018 to May 2018. A total number of 943 antenatal charts were audited. Parameters such as age, parity, singleton vs multiple pregnancy and the indication for Caesarean Section were considered.

Results: The overall rate of Caesarean Sections was 47.2%. Among them emergency lower segment caesarean sections accounted for 43.9% and elective lower segment caesarean sections, for 55.9%. Majority of the emergency caesarean sections were due to foetal distress (40.5%) while lack of progression (17.6%), past section in labour (16.9%), pregnancy induced hypertension/pre-eclampsia (7.7%), breech in labour (5.5%) and failed induction (5.0%) were identified as other causes. With elective caesarean sections, past one section (39.8%) was the main indication followed by past two sections (16.8%), prediction for cephalo-pelvic disproportion (7.1%), breech/malpresentation (7.1%), maternal disease (6.4%), maternal request (3.7%), multiple pregnancy (3.5%), unengaged head (3.5%), intrauterine growth retardation (3.2%), unfavourable cervix (3.2%) and placenta previa (2.0%).

Conclusion: It was observed that Caesarean Section rate in Teaching Hospital Peradeniya exceeds the national Caesarean section rate by a significant percentage.

Implementing procedures such as fetal scalp blood sampling, allowing vaginal birth after caesarean section and performing external cephalic version for uncomplicated singleton breech pregnancies could reduce the caesarean section rate significantly. Proper discussion and documentation of risk vs benefits before deciding on lower segment caesarean section for unengaged head, intrauterine growth retardation and when the first twin is in cephalic presentation would also be helpful. Prediction of cephalo-pelvic disproportion based on maternal height, pelvimetry and estimated fetal weight should not always be a limiting factor for vaginal birth. Counselling and effective pain relief will also encourage vaginal delivery.

Carrying out a re audit, six months after implementing the above changes, is suggested to determine the adherence to NICE guidelines.

AN AUDIT OF THE APPLICATION OF MODIFIED EARLY OBSTETRIC WARNING SCORE IN AN OBSTETRIC AND GYNAECOLOGY UNIT

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Introduction and objectives: The Modified Early Obstetric Warning Score (MEOWS) chart is a color coded, simple, and easy to interpret scoring system that is recorded by nursing staff and alarms on-call medical officers according to the call-out algorithm.

This audit was carried out to ascertain the completeness of the marking of MEOWS charts, the percentage of triggers resulting in medical interventions and the time interval for such interventions.

Methods: The study was carried out at ward 09, Sri Jayawardenepura General Hospital (SJGH). MEOWS was introduced to ward 09 SJGH, Sri Lanka following a staff educating program and was in practice for the past six months.

Forty-eight instances of triggers in 13 patients were retrospectively analyzed. The completeness of MEOWS chart recording was assessed. All triggers (one red or two amber scores) were recorded. The documentation carried out by the nursing officer and alerting the on call doctor based on the triggers were assessed along with the time taken for the on-call doctor to see the patient. Documentation with regard to assessment and interventions carried out were noted.

Results: All 13 charts (100%) were marked incompletely missing important vital signs. Forty-eight observations triggered the call-out algorithm with one red or two amber scores. The nurses had documented alerting the doctors only in 12/48 (25%) triggering scores. Doctors have attended, assessed, intervened and documented following eleven of the alerts (92%). The mean time taken for a doctor to see the patient following a trigger was 12 minutes.

Conclusions: Alarming the on call doctors by nursing officers need to be improved as 36/48 (75%) triggers were overlooked. Once informed, medical officers have attended within a short time, which indicated the usefulness of the MEOWS. Retraining the staff to pickup, alert and document all triggers is indicated to maximally utilize the advantages of MEOWS.

AN AUDIT ON PARTOGRAM IN A TERTIARY CARE HOSPITAL IN SRI LANKA

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Introduction: Partogram is the graphical representation of labour and related events, all women undergoing labour should have a partogram maintained. We conducted an audit on partogram documentation in a tertiary care hospital in Sri Lanka among sixty randomly selected labour suite medical staff.

Methodology: The explicit criterion used was the national guideline on Intrapartum care based on NICE (UK) guideline.

A pre-test followed by a post-test was done; conducting a hands on training in between. Documentation adequacy was categorized as optimum, substandard and poor and analyzed using statistical package.

Items checked regarding documentation were, correct documentation of; General details, Fetal Heart sound (FHS), CTG, Contractions, Oxytocin infusion, Abdominal Descent, Vaginal examination, (VE) findings, Maternal vital parameters, Second stage and outcome of the delivery.

Results: In pretest: best documented items were blood group 93.3% (56), blood pressure 65% (39), FHS in the 2nd stage 56.7% (34), Temperature 55% (33), VE 53.3% (32). The poorest documented items were outcome of the delivery 1.7% (1), FHS in the 1st stage and special instructions 6.7% (4), Vaginal descent 10% (6).

In post test: best documented items were Blood pressure and pulse rate 96.7% (58), 2nd stage FHS marking 95.0% (57), temperature 93.3% (56), Blood group 91.7% (55). The poorest documented items were still outcome of the delivery 20% (12), FHS in the 1st stage and special instructions 21.7% (13), Vaginal descent 23.3% (14) and position 28.3% (17).

When comparing pre intervention and post intervention results, best improvements in documentation had been of outcome 66.7% (40), FHS 50% (30), special instructions 48% (23), vaginal descent 45% (27). Least improvement of documentation had been in documenting blood group -1.7% (1), blood pressure and pulse 10% (6), 13% (8), 2nd stage FHS 15% (9).

Conclusion: Partogram documentation practices of labour room staff is substandard, there is a marked improvement in correct partogram maintenance following a hands on training.

Recommendations: Frequent training sessions on partogram maintenance is recommended.

Theme 12 Reproductive Medicine

CASE ON HETEROTOPIC PREGNANCY FOLLOWING IN-VITRO FERTILIZATION

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Introduction: Ectopic pregnancy is defined as the fertilised ovum implanted outside the endometrial cavity. Most common site for ectopic implantation is the ampullary region of fallopian tube. EP occurs around 1-2% of all viable pregnancies and haemorrhage from an EP due to tubal rupture remains the most common cause of maternal mortality in the first trimester of pregnancy.

Case Report: 42 years old married women, admitted to teaching hospital Ragama, with the one-day history of severe generalized abdominal pain. She is a primary sub fertile. Her complaint is severe lower abdominal pain with increasing severity, movements aggravating the intensity of the pain but no history of vaginal discharge.

As her husband is having erectile dysfunction with severe azoospermia, patient underwent in-vitro fertilization. Husband

sperm was retrieve by surgical sperm retrieval method and five ovum retrieve from the patient, fertilized by intra cytoplasmic sperm injection. All five were fertilized and three embryos at eight cell stage were transferred to patient's uterus, two were frozen.

Follow up transvaginal scan reveals intrauterine pregnancy with a life fetus and CRL was compatible with five weeks and six days.

At 10+6 weeks of gestation she got admitted to casualty ward with severe abdominal pain, patient was in impending shock. Diagnosed to have ruptured tubal ectopic pregnancy with viable intrauterine pregnancy. Laparotomy was performed. Right sided ampullary region ruptured ectopic pregnancy was clamped and resected. Complete haemostasis achieved. Three pints of red cell concentrates given. Her post-operative period was uneventful. vaginal progesterone prescribed.

Repeat scan reveals viable intra uterine pregnancy.

Discussion: Subfertility is a universal problem affecting 8-12% of couples worldwide. The associations between infertility and EP are complex, as one of them could be simultaneously a cause and the other a consequence. Majority of the patients who undergoing IVF having existing tubal pathology which could be the cause of the prevalence of EP.

With the increase demand for assisted reproductive technologies, including intrauterine insemination and IVF-embryo transfer (IVF-ET) with or without intracytoplasmic sperm injection, incidence of EP also showing increasing.

CASE REPORT ON MAYER-ROKITANSKY-KUSTER-HAUSER SYNDROME TYPE 2

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Introduction: Mayer-Rokitansky-Kuster-hauser syndrome (MRKH syndrome) is a congenital syndrome characterised by vaginal aplasia associated with mullerian duct abnormalities. This occurs in 1 in 5000 females. Type 1 MRKH syndrome is characterised by isolated absence of proximal 2/3rd of vagina. Type 2 is associated with vertebral, renal, otologic and cardiac malformations. These patients are undiagnosed until puberty. They have normal thelarche and adrenarche with primary amenorrhea, regular cyclical abdominal pain and normal ovarian function. They present with infertility, difficulty with intercourse and urinary incontinence later. On examination there is normal secondary sexual characteristics, normal vulva, labia and clitoris, but underdeveloped vagina.

Case history: This is regarding 26 years unmarried girl diagnosed with MRKH syndrome type 2, presented with right side constant abdominal pain for 3 days duration in the absence of vaginal bleeding. She had mild pervaginal spotting for one day at 11 years, since then she is having primary amenorrhea. She has normal secondary sexual characteristics. Her abdominal scan showed absent uterus and left solitary kidney and her hearing was normal. On examination there was mild tenderness over right Iliac fossa region. Transabdominal scan showed absent uterus with right side simple ovarian cyst 3.8 × 3.8 cm size with no evidence of cyst rupture or twisting. Her abdominal pain settled

with simple analgesics. Then we arranged plastic surgical referral for neovagina reconstruction.

Discussion: MRKH syndrome has normal karyotype (46 XX) and normal levels of Follicle Stimulating Hormone, Leutinizing Hormone and Testosterone. Only modality to diagnose this condition is by imaging. The above patient got right side abdominal pain which is unlikely to be due to small follicular cyst. This could be either due to cyclical abdominal pain or endometriosis. Ultrasound scan can be used as an initial imaging. Magnetic Resonance Imaging can be used to clarify inconclusive ultrasonography. Excision of uterine horn via laparoscope is useful. Goal of treatment is to make unscarred vagina. This could be either by Frank vaginal dilator technique or by vaginoplasty.

Conclusion: Patients with MRKH syndrome are managed via multidisciplinary approach involving endocrinologist, adolescent gynaecologist, geneticist, urologist, orthopaedic surgeon, psychiatrist and audiologist. Surgical vaginoplasty improves the sexual function and quality of life. Patient counselling for stress relief with home vaginal dilation method, for discussion of development of reproductive system and also for psychological encouragement. Fertility wishes can be achieved through assisted reproduction techniques and surrogacy.

KNOWLEDGE AND PRACTICE ABOUT CONTRACEPTIVE METHODS IN PREGNANT MOTHERS DELIVERED AT WARD 20, TEACHING HOSPITAL JAFFNA – AN AUDIT

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Introduction: Contraception is a method which is used to prevent the conception results in avoids unwanted pregnancies and maintains adequate spacing between children. Contraceptives are divided into natural, hormonal, non-hormonal/barrier methods. Each of them having beneficial and side effects in various degrees, which limit the usage. Demographic and Health Survey (DHS) 2006-2007 reflects relatively low levels of unmet need, which is in tandem with the relatively high levels of contraceptive use. Overall, 7.3% of married women had an unmet need for family planning. DHS 2016 reveals 99.7% of married women having knowledge of contraceptives. Still there were unwanted pregnancies, increasing criminal abortions and increase maternal death due to severe cardio respiratory disease in which pregnancy is contraindicated.

Method: 60 postpartum mothers at ward 20 Teaching Hospital Jaffna assessed by using interviewer administered questionnaire about knowledge and usage of contraceptive.

Results: The age range of the participants is 23-40 with median age is 29. About 50% of the participants are primi and 25% are with 3/ more children. 90% of them were educated up to O/L or above. Out of 60 participants 97% having some knowledge about contraceptives, 77% of them received contraceptive advice before delivery and 20% received it in the postnatal period. Public

health midwives (PHM) are playing major role in contraceptive counseling (68%) and another 17% by family members or friends while 12% of them gained knowledge from media and other source.

The knowledge of individual contraceptives was assessed and 97% know about COCP, followed by IUCD (83%), only 13% have idea about PPIUD, male condoms (80%), subdermal implants (78%), DMPA (67%), female sterilization (47%) and male sterilization (26%). 33% preferred COCP as it is less harm, followed by (20%) subdermal implants, (17%) male condoms, (13%) DMPA and (7%) IUCD. The knowledge about weight gain with hormonal contraceptives noted in half of the candidates. Most of them express that they have fear about the IUCD as they heard about the risk of perforation and infection.

Conclusion: 97% of the postpartum mothers have knowledge about contraceptive methods, out of them 77% were counseled before delivery. PHMs were the main source of health education at primary care centers. The knowledge about COCP, ICUD and male condom are high and lowest is about PPIUD and male sterilization. Most of the candidates preferred COCP and a high useage of subdermal implants also noted. IUCD useage is very low because of the fear of perforation and infection.

As DHS in 2016 shows 99.7% of the married women having knowledge about contraceptive methods, the study population also up to the same health education standard. Social media networks can be used as a health education tool as it is easy accessible. Suggest promoting more health education and counseling about PPIUD at primary health care settings.

NATURALLY CONCEIVED ECTOPIC PREGNANCY IN A BACKGROUND OF MODERATE OVARIAN HYPERSTIMULATION SYNDROME: A CASE REPORT

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Introduction: Ovarian hyperstimulation with ovulation induction agents such as clomiphene citrate is a rare but serious complication. Ectopic pregnancy in the same background can obscure the presentation and make the management complicated.

This is a case of moderate ovarian hyperstimulation co-existing with an ectopic pregnancy.

Case History: A 33 year old female patient was undergoing ovulation induction therapy with clomiphene citrate 100mg on second to 6th day of the cycle for primary subfertility with anovulation. Her tubal patency assessment with hysterosalpingogram has shown bilateral patent tubes. She has undergone transvaginal ultrasound scanning on the day 12, of the cycle which showed a 2 mature follicles measuring 22 mm and 20 mm in right side and 18mm and 17 mm follicles in the left side. She was treated with intra-muscular human chorionic gonadotropin (hCG) 5000IU injection.

She presented to the Gynaecology casualty unit with severe abdominal pain, nausea and vomiting on 24th day of the cycle. She mentioned that her last period was abnormally scanty and she was having intermittent mild spotting. On examination, heart rate was 120 bpm with a respiratory rate of 32 /min. Blood pressure was maintained at 100/70mmHg. Full blood count was normal with a hematocrit of 0.43, sodium 132 mmol/l and potassium 4.6 mmol/l. Urine hCG test was positive. Transvaginal ultrasound scan showed hyper-stimulated ovaries, right one measuring 10cm in largest diameter and the left one 7 cm, with a right sided tubal ectopic pregnancy. Organized blood clots and free fluid measuring about 300 ml were noted in pouch of Douglas. Possible ruptured tubal ectopic pregnancy coexisting with ovarian hyperstimulation was suspected and emergency laparotomy was performed.

Upon opening of the peritoneum about 500ml of fresh blood was noted within the peritoneal cavity. Ruptured right sided tubal ectopic was buried under the hyper-stimulated ovaries. Right sided salpingectomy was done. Opportunistic surgical reduction of the ovaries was performed. Patient became completely asymptomatic within 24 hours.

Discussion and conclusion: In this clinical scenario probably the patient has taken ovulation induction while she was already conceived with the ectopic pregnancy. This may have led to the profound response to the hCG trigger. Interpretation of the degree of ovarian hyperstimulation is difficult in this situation because it has been affected by the ruptured ectopic pregnancy. Although conservative management was the usual approach in the management of ovarian hyperstimulation, opportunistic surgical reduction of ovaries was successful in this patient.