Volume 39, Supplement 1, August 2017

SLJOG

SLCOG GOLDEN JUBILEE CONGRESS 2017 in collaboration with FIGO, AOFOG, SAFOG

3rd to 6th August 2017
Bandaranaike Memorial International Conference Hall,
Colombo, Sri Lanka

The Sri Lanka Journal of Obstetrics and Gynaecology

“Women’s Health: Past Experiences; Future Agenda”

Editorial Committee

Dr. Ramya Pathiraja
Prof. Prasantha Wijesinghe
Prof. Hemantha Senanayake
Prof. Athula Kaluarachchi
Dr. P.C. Gunasekera

This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Editorial Process

Abstracts were reviewed by the SLCOG Golden Jubilee 2017 Congress committee rather than as part of the SLJOG peer review process.

Disclaimer

This supplement has been produced using author-supplied copy. Editing has been restricted to some corrections of spelling and style where appropriate. No responsibility is assumed for any claims, instruction, methods or drug dosages contained in the abstracts: it is recommended that these should be verified independently.

Contents

Oral Presentations

AO001 – AO006	Category A: Quality Improvement, Education, Simulation and Patient Safety	01-05
BO008 – BO011	Category B: Fertility and Reproductive medicine	05-06
CO012 – CO017	Category C: Medical Disorders in Pregnancy	06-10
DO018 – DO 023	Category D: Caesarian Section	10-12
EO024 – EO028	Category E: Labour	12-14
FO029 – FO030	Category F: Contraception and Fertility Control	14
GO031 – GO034	Category G: Urogynaecology	14-15
HO035 – HO038	Category H: Fetal Medicine	15-17
IO039 – IO043	Category I: Post Partum Hemorrhage	17-18
JO044 – JO046	Category J: Antenatal Screening and Early Pregnancy	18-19
KO047 – KO052	Category K: Oncology, Colposcopy and Menopause	19-21

e-Poster Presentations

EP 01 – EP10	23-26
EP 11 – EP20	26- 29
EP 21 – EP30	29-32
EP 31 – EP40	32-35
EP 41 – EP50	35-39
EP 51 – EP60	39-41
EP 61 – EP70	41-45
EP 71 – EP80	45-48
EP 81 – EP90	48-51
EP 91 – EP100	51- 54
EP 101 – EP110	54-57
EP 111 – EP120	57-60
EP 121 – EP130	61-64
EP 131 – EP140	64-67

Corrigendum	68-69
Author Index	70-77

DOI: <http://doi.org/10.4038/SLJOG.V39I5.7814>www.sljog.lk/sljoj

Abstract

Oral Presentations

Category A: Quality Improvement, Education, Simulation and Patient Safety

AO001

Translation and Validation of ICIQ-FLUTS for Tamil speaking Women

Pieris TR¹, Ekanayake CD¹, Abdul Basith FD¹, Wickramaratna DKU¹, Peries EE¹, Antonythas R¹, Pathmeswaran A², Wijesinghe PS².

¹District General Hospital, Mannar, Sri Lanka.

²Faculty of Medicine, University of Kelaniya, Sri Lanka

Objective: Research in to lower urinary tract symptoms in South Asia is hampered by lack of validated tools. There fore our aim was to validate the International Consultation on Incontinence modular questionnaire on female lower urinary tracts symptoms (ICIQ-FLUTS) from English to Tamil.

Method: The ICIQ-FLUTS was translated to Tamil and a validation study was carried out among women attending the gynaecology clinic at district general hospital-Mannar.

Results: Content validity assessed by the level of missing data was less than 2%. Construct validity was assessed by the ability of the questionnaire to identify patients with incontinence (n=45) from controls (n=93) using the incontinence score (patients=7.7 SD=4.7, controls=1.4 SD=2.2, p<0.001) and those with symptomatic anterior wall prolapse (n=16) from controls (n=93) using the voiding symptoms score (patients=4.8 SD=2.3, controls=0.3 SD=0.8, p<0.001).

Internal consistency was assessed using Cronbach's coefficient alpha score (0.80 (0.77-0.81)). Test-retest reliability assessed by weighted kappa (k) ranged from 0.73 to 0.87. Patients with incontinence (n=30, pre-treatment incontinence score=7.9, SD=4.9 versus post-treatment incontinence score=3.3, SD=3.1) and symptomatic anterior wall prolapse (n=14, pre-operative voiding symptoms score=4.9 SD=2.5 versus post-operative voiding symptoms score=0.9 SD=1.5) showed an improvement with treatment (Wilcoxon matched -pairs signed-rank test p<0.001 and p<0.01 respectively).

An incontinence score ≥ 3 (sensitivity=86.7%, specificity=78.4%) and a voiding symptoms score ≥ 3 (sensitivity=87.5%, specificity=96.2%) detected any form of incontinence and symptomatic anterior wall prolapse respectively.

Conclusion: The Tamil translation of ICIQ-FLUTS has retained the psychometric properties of the original English questionnaire and will be an invaluable tool to elicit LUTS among Tamil speaking women.

AO002

Study on the patient's perception regarding the patient care provided by a tertiary care hospital.

Jayalath JAVS, Lanerolle S, Gunathilake SNMPK, Siriwardhane DS.

Castle Street Hospital for Women, Colombo.

Background: Sri Lanka provides free healthcare services to all citizens through government healthcare delivery system and it has achieved remarkable health indices. Nevertheless, there are certain drawbacks which have affected the quality and efficacy of the patient care provided by the government hospitals.

Objective: The main objective of this study was to assess patient's perception regarding the patient care provided by a tertiary care hospital in Sri Lanka.

Design, Setting and Methodology: This was a cross-sectional descriptive study conducted in ward 01 and 02, Castle Street Hospital for Women from 01st May 2016 to 15th May 2016. The Quality Assessment Tool (QAT) which consists of a self-administered questionnaire which is recommended by the National Guideline on Improvement of Quality and Safety of Healthcare Institutions published in 2010 was used to collect the data.

Results: Out of 126 participants who had inward care at ward 01 and 02, Castle Street Hospital for Women, 43.7% were admitted for the first time to the hospital. Majority (90%) were happy about the time taken for the admission where as only 5% were unhappy. 90% of them were happy about the attention paid by the doctors and 87% of them were happy about the attention paid by the nurses. Majority of them were happy about the affability of the ward staff (doctors 87%, nurses 86.5%, and attendants 81.7%). Most of them were happy about the ability to inquire about their disease condition (85%), responses received (85%), and the care given by the consultant (91.3%). Only 71.4% were happy about the health education given. Majority (93%) of the participants would recommend the hospital for others whereas 7% would not.

Conclusion: Care satisfying the patient can be offered by dedicated team work of the ward staff even though the physical resources provided may be limited. Patient satisfaction surveys should be a regular outcome monitoring process to assess and improve the patient care provided.

AO003

Use of internet facilities to gather health information among pregnant mothers in urban health care setting

Jayalath HPI, Kumarasinghe HMS, Deshan VGU, Premadasa J. Teaching Hospital, Anuradhapura.

Objectives: To describe the use of internet facilities to gather health information among pregnant women in an urban healthcare setting Sri Lanka.

Methods: Descriptive cross sectional study was conducted among 176 pregnant women at the antenatal clinic Colombo North Teaching Hospital for six months' duration. Systematic random sampling technique was applied. A self-administered structured data collection sheet which consisted 25 questions was used for data collection.

Results: Majority of the participants was in the 25–30 years' age group (67%). 72% of participants had internet access and 59.7% of them were using smart phones. 46% of the participants using internet facility had used internet to get pregnancy related health information during the pre-pregnancy period. 85% of the women had used internet facilities to gather health information. 64% of them had searched for information on nutritional advice, 53.4% had read the risks involved with pregnancy and 78% of them had searched for information regarding sex during pregnancy. 33% of the participants had obtained information regarding pregnancy, mainly from social network websites. 82% of these internet users were satisfied with the accuracy of the data they received and 64% of them had followed the advice and information they have gathered through the internet. 71% who had internet facilities had identified language as a barrier. 23% who had internet facilities were unable to use or get any advantage from the internet as their computer literacy level was very poor.

Conclusion: Internet literacy among pregnant women was considerably high in the urban setting and on line health consultation has become more popular and rapidly spreading among the young female population. It is essential to establish a proper planned pathway to use internet facilities to provide correct information and identify the barriers in the process. Better pregnancy outcome could be achieved by conducting practical information delivering programmes. A notable motivation could be observed in using internet facilities for seeking health information regarding extremely personal health data. Therefore, these web sites should be designed and published with correct health information avoiding limitation of access due to language barriers. These web sites can be used to promote and update health knowledge among women by opening easy pathways to solve their health problems.

AO004

A novel integrated intervention to improve maternal weight gain and birth weight in an underprivileged community

Nawaz JM¹, Dato Johar, Gr², Hitinayake HMGSB³, Karuthan C².

¹ Teaching Hospital, Gampola, Sri Lanka.

² Management and Science University, Kuala Lumpur, Malaysia.

³ Department of Crop Science, Faculty of Agriculture, University of Peradeniya, Sri Lanka.

Abstract: A novel integrated intervention to improve maternal weight gain and birth weight in an under privileged community

Background: The maternal weight gain and birth weight in estate sector worker communities have been always less than the national average. They are relatively underprivileged and socio-culturally different to other mainstream communities. However, the major cause seems to be the knowledge gaps with providers and receivers related to preventive and curative maternal healthcare.

Objective: To improve maternal weight gain and birth weight in the estate pregnant women through an integrated intervention of Knowledge Management and Innovation System

Design: The study focused on applying Knowledge Management and Innovation (KMI) system to achieve the objectives. Knowledge gaps of the Health Care providers and receivers of the preventive and curative maternal health care services in the estate sector were identified. After identifying the knowledge gaps the integrated interventional activities were carried out to apply KMI to enhance the maternal weight gain and birth weight of this underprivileged, vulnerable group of people who live away from the main stream areas.

Setting: Entire pregnant women population of fifteen tea estates managed by the Regional Plantation Companies (RPC) in the catchment area of Teaching Hospital Gampola was selected. Ethical clearance was obtained from the Research Ethical Review Committee of Teaching Hospital Kandy.

Methods: All pregnant women in the fifteen estates in the catchment area became participants in the study. There were 209 in December 2013 and 202 in December 2016. Maternal weight gain during pregnancy and Birth weight of babies were used as the main indicators before the intervention in 2013 and after the intervention in 2017. The paired T test was performed to assess the impact of the integrated intervention.

Results: The Mean maternal weight gain in December 2013 was 7.31 ± 2.1 kg. After the intervention it improved to 9.10 ± 2.8 kg in December 2016. The Mean birth weight was 2.239 ± 0.487 kg in 2013 and improved to 2.797 ± 0.384 kg in 2016. Analysis of data using paired T test showed that both indicators have improved significantly ($P=0.001$) confirming that integrated interventions have contributed to the improvement in both health indicators.

Conclusions: The results of the study indicate that integrated interventions using Knowledge Management and Innovation system have improved maternal weight gain and birth weight in the pregnant women of the underprivileged estate population.

AO005

Audit on implementation of structured enhanced recovery protocol in patient care related to major Gynaecological surgeries in a tertiary care hospital in Sri Lanka.

Samarakkody SN, Sirisena PLA, Raguraman S, Perera MAK.
De Soysa Hospital for Women, Colombo.

Background: Enhanced Recovery (ER) has also been described as 'accelerated' recovery. The combination of evidence-based elements of care into a pathway for elective surgery results in a reduction in the physiological stress response and organ dysfunction caused by surgery, which facilitates more rapid recovery, shortened length of stay, and rapid return to normal activity.

Objectives: To implement structured enhanced recovery protocol in patient care related to major gynaecological surgery namely; abdominal and vaginal hysterectomy, radical surgery for malignancies, laparotomy for ectopic pregnancies, and ovarian cystectomy and to evaluate the outcomes of enhanced recovery protocol in a tertiary care hospital setup.

Study design and Setting: Prospective single centre study in a tertiary care hospital.

Method: Enhanced recovery protocol was adopted with reference to the published guidelines and protocols for pre, intra, and post-operative care in gynaecological surgery by a team consisting consultant gynaecologist, consultant anaesthetist, consultant physician, medical officers and nursing officers. The ER protocol was introduced and the outcomes of enhanced recovery protocol were assessed in seven different aspects namely; changes from over night fasting to oral fluids /carbohydrate drinks 2 hours before surgery, serving of post-operative drinks and food on the day of the surgery, avoidance or early removal of drains and tubes, early removal of urinary catheter, early mobilization, use of early oral analgesics and duration of hospital stay. A questionnaire with an observational check list was made and used for data collection in the preceding three months prior to the introduction of the protocol and during the next three consecutive months after the protocol was implemented.

Results: The mean length of hospital stay was shortened to three days from five. This difference was statistically significant ($P < 0.01$). All the other outcome measures that we evaluated were found to be significantly better compared to the data collected during the period prior to the introduction of ER protocol.

Conclusion: Our results, in following the ER protocol, provided evidence that ER protocol appropriately adopted in gynaecological surgery reduces the hospital stay and morbidity without any increase in readmissions. However further audits would be needed for accurate establishment and evaluation of the outcomes of the ER protocol.

AO006

Demographic and clinical characteristics of antenatal and postpartum referrals to the Consultation Liaison Unit of the University Psychiatry Unit of National Hospital of Sri Lanka

Adicaram DRS¹, Wijesinghe RD², Neththasingha NMPJ³,
Dayabandara LRM³, Ariyananda D³.

¹ National Institute of Mental Health.

² De Soysa Maternity Hospital for Women.

³ National Hospital of Sri Lanka.

Background: Emergence of psychiatric illness during pregnancy or postpartum period has a negative impact on the baby and mother. Sri Lanka reports a high maternal suicide rate. Enhanced understanding about mental illness in pregnancy enable effective management and prevention.

Aims: To describe demographic and clinical characteristics and their relationship with diagnosis of psychiatric illness in patients assessed for antepartum or postpartum mental illness.

Methods: A cross sectional descriptive study was conducted utilizing data extracted from records of all antenatal and postpartum referrals to University Psychiatry Unit, National Hospital, Sri Lanka during six months using a questionnaire.

Results: A total of 130 referrals were assessed. Mean age was 29.9 years (SD=5.4). Majority were married (93.8%), housewives (73.8%), educated up to grade 11 (77.7%) and multigravidae (53.8%). Of the referrals, 30% were antenatal of which 35.9% were in their first trimester. Majority of postnatal referrals presented in the puerperium (81%). Past history of psychiatric illness was reported in 13.8% and past deliberate self-harm in 10.8%. Family history of psychiatry illness was present in 38%. Sixty-seven were diagnosed with a mental illness: depression-30.8%, maternity blues-7.7%, postpartum psychosis-5.4%, grief reaction-3.1% and schizophrenia-3.1%. Past and family history of psychiatric illness, deliberate self-harm and mode of delivery were significantly associated with being diagnosed with a psychiatric illness at referral ($p < 0.05$).

Conclusion: Past and family history of psychiatric illness, deliberate self-harm and delivery by caesarean section were associated with a diagnosis of psychiatric illness in antenatal or postpartum period. Further investigation such as case control studies are needed to clarify this risk.

Category B: Fertility and Reproductive Medicine

BO009

Knowledge and motivation to seek treatment for infertility among couples diagnosed with primary subfertility in an urban health care setting

Sithambarapillai A.

De Soysa Maternity Hospital, Colombo.

Objectives: To describe knowledge and motivation to seek treatment for infertility among couples diagnosed with primary subfertility in an urban health care setting.

Methods: A descriptive cross sectional study was conducted among 100 subfertile couples in Colombo district in Sri Lanka for

one-year duration. Systematic random sampling technique was applied. Patients who came for subfertility treatment for the first time were included into the study and patients who had been

practicing traditional medical treatment were excluded from the study. Interviewer administered data sheet which consisted of 24 questions and answers arranged according to Likert scale was used for data collection.

Results: Majority of the participants willingly accepted treatment. Social pressure had a positive effect in motivating patients to seek treatment. 47.5% of participants did not have any idea of the causes of infertility. Over all knowledge of infertility showed a normal distribution. Majority (n=73) thought that there is no need to investigate the male partner if his sexual functions were normal. 95% thought that the drugs used for subfertility treatment will cause harmful effect on the baby. None of the patients were aware that increased body weight can be associated with subfertility. 23% of the participants stated that the prevailing educational and motivational programmes and policies practiced in the country are inadequate for infertility treatment. None of the women had the decision making power to seek infertility treatment.

Conclusion: A huge social pressure is generated towards a subfertile patient which motivates the patient to seek medical treatment. Awareness and understanding of infertility and its causes were poor among the couples studied and it is essential to plan strategies to overcome these short comings.

BO010

Effect of Serum Progesterone levels prior to hCG trigger on success rates of IVF treatment in a group of Sri Lankan women

Kaluarachchi A¹, Wijeratne S¹, Seneviratne HR², Batcha M², Kaluarachchi DP², Weerawardhana CD¹, Chathumal SMDJ¹, Kowshika S¹, Mudali AK¹.

¹Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo.

²Vindana Reproductive Health Centre, Colombo.

Abstract: Effect of Serum Progesterone levels prior to hCG trigger on success rates of IVF treatment in a group of Sri Lankan women.

Background: In recent years, several large trials and meta-analyses have suggested a negative impact of elevated progesterone on the success rates of in-vitro fertilization cycles. Most research has reported that elevated progesterone had an adverse impact on the endometrial environment of fresh cycles, leading to a decrease in pregnancy rates and that elevated progesterone prior to ovulation has an adverse impact on the endometrial environment and on the quality of the oocyte or resulting embryo. However, the influence of the pre-ovulatory rise of Progesterone on IVF outcome remains controversial. Several authors have failed to demonstrate any negative impact, while others reported a detrimental effect associated with the rise of pre-ovulatory Progesterone.

Objective: The aim of this study was to analyse the relationship between pre-ovulatory progesterone (P) levels on the day of hCG administration and invitro fertilization (IVF) pregnancy outcomes.

Material and methods: This was a retrospective, cohort analysis of 120 routines fresh IVF cycles carried out at the "Vindana" reproductive health centre between November 2016 and February 2017 in which serum progesterone levels were

Oral Presentations

measured on the day of hCG administration. Results of donor IVF cycles and frozen embryo transfer cycles were excluded from this analysis. Serum progesterone level on the day of hCG administration was measured and according to serum level, patients were divided in to four groups. The four groups were <0.9, 0.9-1.4, 1.5-1.9, and ≥ 2 ng/ml and the live birth rate among the four groups was compared.

Results: Pregnancy rate was significantly different among the four groups ($p < 0.05$). The live birth rate among the four groups were 13.7% in <0.9 ng/ml, 17.9% in 0.9-1.4 and zero live births in 1.5-1.9 ng/ml and > 2 ng/ml categories respectively according to serum progesterone level.

Conclusion: The results of this study demonstrate that elevated pre-ovulatory progesterone levels (> 1.5 ng/ml) before oocyte maturation has a significant negative effect on pregnancy outcomes. Highest live birth rates were observed in women who had serum progesterone level on the day of hCG administration between 0.9-1.4 ng/ml.

Category C: Medical Disorders in Pregnancy

CO012

Cardiac disease complicating pregnancy: an experience from a tertiary care cardiac center

Bandara HGWA¹, Jegavanthan A¹, Kogulan T¹, Jayasekara NMTC¹, Jayawikreme SR¹, Sirisena TS¹, Hemapriya S², Ekanayake SB², Abeykoon W², Kodithuwakku NW¹, Weerakoon WMG¹, Dolapihilla SNB¹, Kularathne A¹.

¹Department of Cardiology, Teaching hospital, Kandy.

²Department of Gynaecology, Teaching hospital, Kandy.

Objectives: To evaluate the pattern of cardiac diseases complicating pregnancy and to assess the fetal-maternal outcomes.

Design, setting and methods: A prospective cross-sectional study was conducted in 2016 January to December. All the pregnant women who were referred to cardiology unit Teaching Hospital, Kandy, were evaluated. Patients who belonged to World Health Organization (WHO) cardiac risk category $> II$ were discussed at multi-disciplinary meetings. All of them were followed up during their pregnancy and post-partum period.

Results: There were 81 pregnant women in the study with a mean age of 28.49 ± 6.01 years. Out of the cardiac diseases, valvular heart diseases were the commonest (60%, n=45) pathology. There were 24.69% (n=20) with congenital heart diseases and 11.11% (n=9) with cardiomyopathies. Mitral stenosis was the commonest 48.12% (n=39) among valvular heart diseases. Other valvular lesions included, 30.86% (n=25) of mitral regurgitation, 6.17% (n=5) of aortic regurgitation, 3.70% (n=3) of pulmonary stenosis and 2.45% (n=2) of aortic stenosis. Out of all valvular disease 68.75% (n=33) were rheumatic in origin. According to WHO pregnancy risk assessment 24.69% (n=20), 3.70% (n=3), 40.74% (n=33), 6.17% (n=5), and 22.22% (n=18) were belonged to category I, II, [II-III], III, and IV respectively. There were 75.31% (n=61) with uneventful postpartum period. However, there were 2.56% (n=2) maternal deaths related to cardiac illness, 12.82% (n=10) re-admissions and 10.26% (n=8) neonatal complications necessitating intensive care unit admissions.

Conclusions: Still the major cause for heart disease complicating pregnancy is the rheumatic valvular heart disease. The study emphasizes the importance of pre-pregnancy detection of cardiac conditions in the community level aiming to reduce the cardiac disease related maternal morbidity and mortality.

CO013**Comparison of pregnancy outcomes following diagnosis of gestational diabetes according to HAPO/IADPSG and NICE criteria in a cohort of pregnant women in Sri Lanka—a prospective cohort study**

Jayawardane MAMM, Samarawickrama NGCL, Withanathantrige MR, Silva KCDP, Jeewantha RDSamarawickrama LPU.

University Obstetrics and Gynaecology Unit, Colombo South Teaching Hospital, Kalubowila.

Introduction: There are significant differences in detecting gestational diabetes mellitus (GDM) based on the findings of the Hyperglycaemia and Adverse Pregnancy Outcome (HAPO) study and its implementation through International Association of Diabetes in Pregnancy Study Group (IADPSG) criteria and National Institute of Health and Care Excellence (NICE) criteria. Our aim in this study is to compare pregnancy outcomes following diagnosis and management of GDM by using HAPO/ IADPSG criteria and NICE guidelines.

Methods: A prospective cohort study was done from June 2015 to November 2016 on 238 pregnant women who were diagnosed as GDM in the university obstetrics unit, Colombo South Teaching Hospital, Sri Lanka. Diagnosis of GDM was made using both HAPO/IADPSG criteria and NICE criteria of oral glucose tolerance test (OGTT) cut-off values. NICE diabetes in pregnancy guidelines were used in management once GDM was diagnosed.

Results: GDM was diagnosed in 238 women by using both criteria; 78 (34%) women were diagnosed according to HAPO/ IADPSG criteria, which were not diagnosed by NICE criteria alone ($P < 0.05$). Among these, 56% were started on glucose-lowering treatments; 10% were delivered by primary caesarean section and 15% of babies were admitted to neonatal intensive care units. A further 20 (8%) women were diagnosed as GDM by NICE criteria, who were categorised as non-GDM by HAPO/ IADPSG criteria. Among these, 60% started on glucose-lowering treatments. Other than 20% primary caesarean section rate, no other adverse pregnancy outcomes were noted among these women.

Conclusion: HAPO/IADPSG criteria diagnosed more women with gestational diabetes when compared with NICE guidelines alone. Only additional 8% were diagnosed as GDM when using NICE guidelines alone, out of which 60% needed medical treatment to achieve euglycaemia. Significant number of women who were diagnosed using combined lower cut-off values, (fasting-92mg/dl and 2hour- 140mg/dl) needed additional medical treatment to maintain euglycaemia. Therefore, as euglycaemia improve the outcome, using this cut-off values in combination may improve the pregnancy outcome of those women.

CO014**Maternal heart disease and pregnancy outcome: Experience in a single unit in a tertiary care hospital.**

Kaluarachchi A, Senanayake HM, Wijeyaratne CN, Jayawardane IA, Rishard MRM, Jayasundara DMCS, Kowshika S, Mudali AK, Weerawardhana CD, Chathumal SMDJ. Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo.

Abstract: Maternal Heart Disease and Pregnancy outcome: Experience in a single unit in a tertiary care hospital

Objectives: Heart disease is an important comorbidity which has a significant effect on the outcome of pregnancy. The haemodynamic changes which occur during pregnancy add to the burden of heart disease. In Sri Lanka heart disease complicating pregnancy is a significant indirect cause of maternal mortality and morbidity. The objective of this study is to assess the maternal and foetal outcome in mothers with heart disease complicating pregnancy admitted to a tertiary care hospital from 2013 to 2016.

Design, Settings and Methods: A retrospective descriptive analysis of secondary data collected from Bed Head Tickets was conducted. The study population consisted of 233 mothers with heart disease who were admitted to a single unit. Mothers who underwent medical termination of the index pregnancy were excluded from the study. Data was analysed using frequency tables and associations were determined using chi square test.

Results: Majority of patients were primi parous (50.2%). Most (35.3%) were in the 30–35-year age group. In 18.9%, heart disease was diagnosed during the present pregnancy. Co morbidities other than heart disease was present in 39.2%. The cardiac diseases were categorised as acquired (46.8%), congenital (27%), mitral valve prolapse (13.3%), cardiac arrhythmias (8.6%) and other types (4.3%). Among the acquired heart disease 89% was rheumatic in origin. Mitral valve (84.5%) was the commonest valve affected in rheumatic patients ($n=97$). Eleven (11.3%) with rheumatic heart disease underwent surgical intervention during pregnancy. NYHA class 3 or 4 at delivery was seen in 7.7% of patients. Pulmonary hypertension was present in 22.9% with acquired heart disease and 31.7% with congenital heart disease. Babies with low birth weight ($<2.5\text{kg}$) were born to 33.6% and 22.2% with acquired and congenital heart disease respectively. 17.5% with congenital heart disease were delivered by elective caesarean section compared to 39.4% with acquired heart disease. There were three intra uterine deaths and two maternal deaths. There was a significant association between the presence of pulmonary hypertension and development of maternal complications ($p=0.03$).

Conclusion: Majority of the women had rheumatic heart disease. There is an increase in the number of women with congenital heart disease compared to previous studies. The presence of pulmonary hypertension significantly increases the risk of maternal complications.

CO015**An audit on the use of antenatal low dose aspirin for the prevention of the pre-eclampsia**

Pushpakanthan EJ¹, DeSilva R², Sivachandran S²

¹ Base Hospital Maha Oya.

² National Cancer Institute, Maharagama.

Background: Pre eclampsia and related disorders cause significant maternal morbidity and mortality worldwide. Low dose Aspirin found to reduce the incidence of pre eclampsia (PET) by 17%. In accordance with the Sri Lankan national guideline, LDA should be offered to all women who are at the risk of pre eclampsia after risk categorization (one or more major or two or more moderate risk factors) in the absence of the contraindications.

Objective: To evaluate the implementation of national guideline in a secondary health care setting in Sri Lanka.

Method: A retrospective observational study was carried out among all women who were admitted for delivery in the antenatal ward of Base Hospital, MahaOya from 1st February to 30th April 2017. Data were collected from national antenatal records regarding demographic details, risk factors of pre-eclampsia and initiation of aspirin. An interviewer administered questionnaire was used to collect the data regarding knowledge and compliance of the intake of aspirin if it was started. Risk categorization was done according to national guideline which is taken as standard.

Result: A total of 112 women were recruited for the study, all have given the consent.

Among the study population 13.3% (15) had one or more major risk factor and 6.2% (7) had two or more moderate risk factors.

Although LDA was given to 89% (19) of at risk women before 16 weeks of gestation, only 47% (9) of those were aware that aspirin reduces the incidence of pre-eclampsia. Eleven (64%) women took the LDA as prescribed, 10.5% (2) refused to take due to fear of fetal risk and 21% (4) did not take because of inadequate knowledge. Gastritis made 10.5% (2) of women to stop the treatment.

Only 25% (6) women agreed that explanation given by health staff was adequate. Except two women with gastritis all other women who failed to take the treatment agreed that they could have considered LDA if explanations were given clearly.

Conclusion: Although adherence with guideline was good, there was significant poor compliance due to inadequate information given to them regarding the effectiveness and side effect profile.

Busy clinic setting might have played a role for this. Health education via patient information leaflets and antenatal classes are planned and a re-audit will be done to assess the effectiveness of these interventions.

CO016

Successful pregnancy outcome in a patient with diabetic gastroparesis managed with erythromycin

Bambaranda BGIK¹, Ranaweera AKP², Wijesinghe RD¹, Rathigashini R¹, Senanayake HMS².

¹ De Soysa Hospital for Women, Colombo.

² Department of Obstetrics and Gynaecology, University of Colombo, Sri Lanka.

Background: Gastroparesis is a condition which presents with symptoms of gastric retention and gastro intestinal manifestations, with objective evidence of delayed gastric emptying in the absence of mechanical obstruction. Although pregnancy is contraindicated in gastroparesis there are few case reports with successful pregnancy outcome with medical treatment, total parental nutrition and in-situ gastric nerve stimulators.

We report a case of diabetic gastroparesis in pregnancy successfully managed with erythromycin.

Case report: A 30-year-old patient in her third pregnancy presented to us at 14 weeks of POA with severe proliferative diabetic retinopathy and intractable vomiting. She was a known patient with type I diabetes for 15 years and has conceived with a HbA1C of 8.6%.

Vitreal surgery was carried out during pregnancy but her most

troublesome symptom was intractable vomiting. Assisted did not respond to combined conventional antiemetics, after excluding other causes, diabetic gastroparesis was suspected and erythromycin was started to which, patient responded.

A live baby was delivered at 32 weeks due to fetal growth restriction. Barium meal and follow through was performed postnatally which suggested gastroparesis. Erythromycin was continued postnatally.

Conclusion: Symptoms of gastroparesis include early satiety, anorexia, nausea, vomiting, epigastric discomfort, and bloating, which are common in pregnancy. Problems associated with diabetic gastroparesis include intractable vomiting, improper nutrition and poor blood sugar control due to erratic absorption.

Main targets of treatment include, alleviation of symptoms, correction of nutrition, and resumption of oral intake and achieving proper glycaemic control. Prokinetic agents such as metoclopramide and erythromycin can be tried in pregnancy, along with H₂ - receptor antagonists and antiemetics. Erythromycin, a motilin receptor agonist is a pregnancy category B drug and can be given intravenously in the acute setting. There is some evidence that low dose erythromycin (50-100mg four times a day) has been associated with long term symptomatic benefits.

With the global epidemic of diabetes, gastroparesis should be kept in mind when treating intractable vomiting in pregnancy in a long term diabetic. Failing treatment with conventional antiemetics erythromycin should be considered as a treatment modality before considering invasive options.

CO017

Does the choice of Caesarean section, among women with heart diseases in pregnancy, give the best outcome?

Sumanathissa RPJ, Wijethilaka BHWMT, Hemapriya S, Gnanarathna S, Perera WME.

Teaching Hospital, Kandy.

Objectives: International guidelines recommend vaginal delivery in women with heart diseases, except for a few contraindications. Despite this, the tendency to deliver such patients by caesarean section at our institution is high. But the outcome in terms of maternal, neonatal morbidity and mortality is satisfactory. Our objectives were to determine the mode of delivery in patients with heart disease and to assess the outcome.

Design, setting and methods: This was a retrospective study conducted at ward five, Teaching Hospital Kandy. Data was collected regarding three main aspects: Modality of delivery, type of heart disease, maternal and neonatal outcomes. Maternal morbidity was assessed using ICU/HDU admission records and cardiac status at discharge. Neonatal morbidity was assessed by APGAR score.

Results: Among a total of 37 patients, 59.4% (22) had valvular diseases and 21.6 % (8) had congenital heart diseases and pulmonary hypertension and 5.4 % (2) were categorized as WHO class IV, where pregnancy is contraindicated. Caesarean sections were done 94.6% (35), of which 70.2% (26) were in women with low risk cardiac lesions. Majority, 94.6% had a stable cardiac status at discharge.

Conclusions: Women who had elective sections for low risk heart diseases could have been delivered vaginally. But these elective caesarean sections were done during day-time, as part of

routine theatre lists, with multidisciplinary team involvement. If vaginal delivery were allowed, factors such as difficulty of offering epidurals, lack of staffing, ICU care may have affected the outcomes. We recommend that further feasibility studies and audits be conducted.

Category D: Caesarean Section

DO018

Pain relief after caesarean section: a complete audit cycle on the evaluation of current practice and introduction of a new protocol.

Patabendige M, Herath RP.

University Obstetrics Unit, North Colombo Teaching Hospital, Ragama, Sri Lanka.

Objective: To evaluate the current management of post operative pain following CS in University Obstetrics Unit, Ragama, Sri Lanka and to introduce a uniform protocol. Gold standard references were NICE- Caesarean section guideline 2011 and a compendium of audit recipes by Royal College of Anaesthetists 2012.

Design, setting and methods: A prospective audit was conducted among 126 consecutive CSs during July-August 2016. Re-auditing was done four months after introduction of protocol using randomly collected 150 partograms over a period of three months. Visual analogue scale (VAS) was used to assess the level of pain.

Results: There were 4106 deliveries in the unit during the year 2016 with a CS rate of 28%. Mean (SD) age is 30.9 years (5.1). Opioids was used in 27 women (21.4%). Use of diclofenac sodium suppositories were the commonest analgesic (42.9%) used. Six (4.8%) patients had properly documented pain management plan in operative notes. No analgesics were prescribed for 6 (4.8%) patients. Six (4.8%) subjects had a proper drug chart maintenance. Forty-two (33.3%) women were not on any analgesics within the first 24 hours. After this audit a new protocol for post-caesarean analgesia was introduced and re-audited the practice. In there-audit procedure, we found that regular analgesics were given to 140 (93.3%) women with satisfactory drug chart maintenance (n=140, 93.3%). Out of 150, 140 (93.3%) patients received analgesia with at least a single method. Mean VAS score was 3.5 (SD 2.0) after first 24 hours.

Conclusion: The provision of post-operative pain relief and the related documentation was below the expected standard before the introduction of protocol. This audit shows a significant improvement in practice after the protocol and suggested VAS aids in the assessment of level of pain.

DO019

An Audit on Caesarean Section at tertiary care hospital in Jaffna over 10 years

Rajeevan J¹, Srithran A², Hamzathwany R³, Manivannan S², Prasanka DPGGM¹, Silva PGYS¹, Kalaimaaran P¹.

¹. Castle Street Hospital for Women, Colombo.

². Teaching Hospital, Jaffna.

³. Faculty of Medicine, University of Jaffna.

Objective: To study the trend, frequency of different indications for caesarean section at teaching hospital Jaffna (tertiary care hospital) over 10 years.

Oral Presentations

Design: Retrospective analysis of all the deliveries from 2007 to 2016. Material and Methods – An analysis was carried out in Teaching Hospital Jaffna (tertiary care hospital). The retrospective data regarding mode of deliveries, trend and indication of CS during the period 2007 - 2016 were collected from the Statistical unit.

Results: The total number of deliveries was 59,530. Total vaginal delivery rate was 66.4% in 2007 and 57.1% in 2016. In the year of 2007 the rate of CS was 29.8% which increased to 38% in 2016. The LSCS rate was increasing gradually from 2012 on wards. Among total LSCS 50.2% were emergency CS. The most common indication was repeat caesarean section (29.7%) followed by fetal distress (22.6%). Among primi gravidae the most common indication was fetal distress (33.9%).

Conclusion: There is a rising trend in the rate of caesarean section in Teaching Hospital Jaffna. It may be due to the development of peripheral hospitals where uncomplicated pregnancies are managed, resulting in most of the complicated deliveries being managed in Teaching Hospital Jaffna. The commonest indication was past section and fetal distress in primi gravidae. A national level consensus guideline is required to control the rising CS rate, especially primary caesarean sections.

DO020

Evaluation of factors contributing to increased caesarean section rate: A Clinical Audit

Sumanathissa RPJ, Perera WME, Hemapriya S, Gnanarathna S.

Teaching Hospital, Kandy.

Objectives: Over the past three decades, there is a rising trend in caesarean section rates. The WHO expert panel proposed a CS rate of 10–15 % which was used as a doctrine for an optimal rate to improve perinatal outcome with minimal interventions. But there has been a dramatic increase in the CS rate globally exceeding 30% in some regions without evidence indicating substantial maternal and perinatal benefits. In our unit we noticed that the rate was almost 50%. “Modified Robson classification” (TGCS) is an internationally-accepted classification system to monitor and compare CS rates. Objective was to change the practice and reduce caesarean section rates.

Design, setting and methods: This was a clinical audit done at ward 05, Teaching Hospital, Kandy over two months. Factors for this high rates of LSCS were analysed using “Modified Robson classification” (TGCS) as well as according to the indications for individual caesarean sections.

Results: Of the women with a singleton pregnancy with a cephalic presentation at term; Nulliparae, offered induction of labour contributed for 8.9% of all LSCS. 18.8% of LSCS were among nulliparae who were offered a LSCS before induction. Multiparae, offered a LSCS before induction contributed for 4.6%. Majority of 33.2% of LSCS was in the group who had past section who were offered LSCS before labour. Group 6-10 in “Modified Robson classification” contributed only 10% of total LSCS. Indications wise past section contributed for 25.8% and fetal distress for 14.8% among total LSCS. Indications like bad obstetric history, subfertility, elderly primi gravida, and large baby accounted for 20% of all LSCS.

Conclusions: Probable early induction, limited or no use of prostaglandins, ‘try be in on the safe side’ in medically complicated pregnancies, lack of consultant or experienced

persons in decision making appear to be responsible for the rising CS rate. Selective induction and augmentation of women with previous CS after proper assessment need to be encouraged. Attitudes of clients should be changed in favour of vaginal birth and their expectations need addressing; proper analgesia in labour, labour companion etc. Indications that are obstetrically not rational need consideration. It is recommended that the practices be changed with a view of re-auditing in six months.

DO021

Effectiveness of intramyometrial oxytocin versus intravenous oxytocin bolus administration during elective Caesarean section: A randomized control trial

Dissanayake AD¹, Samarathunge UY², Piyadigama P², Gunawardena K², Hemapriya S².

¹. Castle Street Hospital for Women, Colombo.

². Teaching Hospital, Kandy.

Introduction: Oxytocin is recommended during elective caesarean section to reduce uterine atony and prevent post partum haemorrhage. Intravenous oxytocin (IVO) bolus is associated with haemodynamic side effects and occasionally fails by itself to maintain uterine tone. Intra-myometrial oxytocin (IMO) can be easily administered by the surgeon and may have a localized effect, resulting in better contractility leading to lesser blood loss and side effects compared to IVO.

Objective: To assess the effectiveness of prophylactic IMO against IVO, in term singleton pregnancies at elective Caesarean section in relation to blood loss, contractility and side effects.

Methods: A double blind randomized control clinical trial was conducted at Teaching Hospital Kandy. Sixty-five term women with singleton pregnancies, under going elective Caesarean section were randomized to IMO (n=33) and IVO (n=32). Prior to umbilical cord clamping, IMO 5IU divided half to each cornu was administered in one group, while the other group received routine IV 05IU. Blood loss was assessed using gravimetric methods and allowable blood loss calculation. Uterine tone was assessed by the surgeon at 2,5,10 and 15 minutes following oxytocin and a score of 1 to 5 given. Haemodynamic parameters, side effects, pre and post-operative haemoglobin and haematocrit were recorded. Data was analyzed using Mann Whitney U and Chi square tests.

Results: Majority were in the age group of 31-35 years with a median gestational age of 39 weeks. The mean blood loss in the IVO group was 303.83 ml (SD ±103.77) and IMO group was 267.65ml (SD±93.53) (p=0.43). However, allowable blood loss in the IMO group 180.8 ml (SD ±178.28) was significantly less than the IVO group 275.06 ml (SD ±200.66) (p=0.04). Contraction scores were similar between the two groups at 2 and 5 minutes, but were significantly higher in the IMO group at 10 and 15 minutes (p=0.002). There was no difference in the need for additional uterotonic agents or side effects between the two groups.

Conclusion: IM Oxytocin was not more effective than IVO, in terms of overall blood loss, haemodynamic changes and side effects. Despite IMO causing stronger uterine tone from 10 minutes on wards, it was only reflected in less allowable blood loss. Further studies on the effectiveness of intra-myometrial oxytocin and the optimum technique of administration is recommended.

DO022

Pre-induction cervical ripening with vaginal PgE2 3mg vs 1.5mg in low risk multiparous women.

Ratnayake NMNB, Perera YAG.

Castle Street Hospital for Women, Colombo.

Objective: To compare the efficacy and effects of pre-induction cervical ripening with PGE2 3mg vs 1.5mg in multiparous women (second and third pregnancy) at 40 weeks of period of amenorrhoea. Time taken to achieve cervical ripening, incidence of achieving cervical dilatation to 8cm, time taken to achieve cervical dilatation to 8 cm, and fetal and maternal complications were the outcomes measured. A smaller dose is expected to have less adverse effects.

Method: A double blind randomized controlled trial was carried out at ward 06 Castle street hospital for women. All the women admitted for confinement at the 40 weeks of period of amenorrhoea (POA) with singleton pregnancy in their second or third pregnancy with previous normal vaginal delivery, PGE2 3mg group was considered as control group and PGE2 1.5mg group was considered as intervention group. Two doses of PGE2 were inserted.

Results: In the control group 109 patients and in the study group 110 patients achieved modified bishop score (MBS) equal or more than 7 after 1 stand 2nd cycle. 142 women in the study group and 133 in control group achieved cervical dilatation of 8cm during labour. These were not statistically significant. Incidence of adverse effects were found similar in the two groups.

Conclusion: As the outcomes of the two groups were not significantly different, 1.5mg of dinoprostone is equally effective to 3mg of dinoprostone in low risk multiparous women in achieving cervical ripening at 40 weeks.

DO023

First episode of genital herpes simplex virus infection in the third trimester of Pregnancy; diagnostic limitations and effects on mode of delivery: a case study

Pannala WS¹, Ranatunga JD¹, Wijesinghe PS².

¹North Colombo Teaching Hospital, Ragama.

²Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Kelaniya.

Background: Risk of herpes simplex viral (HSV) transmission to the baby during vaginal delivery following maternal primary genital herpes in the third trimester is 41%. Caesarean section is recommended in such instances to minimize the risk of neonatal herpes. DNA-PCR is the gold standard of diagnosis of HSV infection. Crossreactivity of HSV1 and HSV2 IgM, variable IgM response in relation to time make these tests less useful. Furthermore, raised IgM may not always indicate primary infection. DNA-PCR does not differentiate primary infection from a recurrence which has lower risk of neonatal herpes (0-3%). IgG has a lower positive predictive value in low prevalence settings.

Case: A 19-year-old primigravida at 36 weeks presented with four days' history of dysuria, multiple painful superficial genital ulcers on both labia with painful bilateral inguinal nodes. Neither she nor her partner had genital or oral lesions before. Syphilis serology, dark ground examination and HIV antibody test were negative whereas Tzanck smear was positive. Clinical diagnosis of primary HSV infection was made and she was treated with acyclovir which was continued until five days after delivery. Two weeks later, she was positive for HSV1+HSV2 IgM antibody ELISA, and negative for type common IgG. Elective LSCS resulted in a healthy baby weighing 3.02kg. Serology four days later had a slightly higher IgG index than previous assay.

Conclusion: High risk of neonatal herpes following primary genital herpes during third trimester, inability to differentiate primary infection from recurrence by available investigations, and practical difficulties of performing these investigations, necessitate management decisions to be based on clinical diagnosis in resource limited settings.

Category E: Labour

EO024

Are there barriers from health care providers for the implementation of Labour Companionship Programs?

Dilruvan MANP, Goonawardene IMR, Rameez MFM.

Academic Obstetric and Gynaecology Unit, Teaching Hospital, Mahamodara, Galle, Sri Lanka.

Introduction: Health care providers could hamper the successful implementation of beneficial interventions.

Objective: To identify whether unsatisfactory knowledge and attitudes of health care providers contributed to women not having a LC.

Method: An interviewer facilitated self-administered questionnaire was used on 12 out of 16 midwives, 23 out of 30 staff nurses, all 13 junior doctors and four out of five specialists in the Academic Unit of the Teaching Hospital Mahamodara, Galle between 01 March to 30 April 2016. Knowledge of benefits of LC, attitudes regarding women having a LC, and details of counseling and encouraging pregnant women to have a LC were collected.

Results: Among those who participated in the study, all the doctors and nurses knew the beneficial effects of a LC to the mother but only 58% of midwives had this knowledge. Among those who participated in the study, all the doctors and 91% of staff nurses believed that the availability of a LC was a good practice which should be encouraged but only 24% of doctors and 17% of staff nurses claimed to have counseled pregnant women routinely regarding LC and only 18% of doctors and 4% of nurses claimed to have counseled at least 50 pregnant women regarding LC during the week immediately preceding the data collection.

Conclusion: Midwives must be educated regarding the beneficial effects of a LC. Doctors and nurses must be motivated to increase counseling of women and their partners regarding the beneficial effects of a LC.

EO025

Effects of education on labour pains

Wijesinghe RD¹, Wijesinghe YMTY², Ranaraja SK².

¹ De Soysa Maternity Hospital, Colombo.

² Teaching Hospital, Peradeniya.

Objectives: To assess the effects of education on severity of labour pain and mode of delivery.

Design, setting and Method: A randomized controlled study was conducted among primigravidae who booked in Teaching Hospital Peradeniya. Intervention group received education on the labour process while control group received standard care. Labour pain was assessed using a visual analogue score. Labour pain and mode of delivery were compared.

Results: A total of 216 participants were involved in the final analysis. Intervention group included 100 participants while remaining were in the control group. Mean age of the participants was 27 years while 78.3% received advanced level education or higher. Nearly 95% of the participants were fluent in reading. Mean labour pain score was 6.6. Pain score of 8, which corresponded with the 75th centile was defined as the cut off for severe pain.

A statistically significant reduction of the pain perception in the labour in the intervention group, (R.R-0.473, C.I-0.303-0.740) was observed. Risk of operative vaginal delivery or caesarean section was not statistically significant.

Conclusions: Hospital based birth education classes are associated with reduced pain perception during labour. Our sample may not represent average Sri Lankan pregnant women since the study was conducted in a setting with higher socioeconomic background. Thus, further national level studies involving more diverse populations are needed.

EO026

How can the implementation of labour companionship programmes be improved?

Dilruvan MANP, Goonawardene IMR, Rameez MFM.

Academic Obstetrics and Gynaecology Unit, Teaching Hospital Mahamodara, Galle, Sri Lanka.

Introduction: The proportion of women having a labour companion (LC) at the Teaching Hospital Mahamodara Galle is <10%.

Objective: To identify measures which could improve the labour companionship programme.

Method: An interviewer facilitated self-administered questionnaire was used to collect data in a convenience sample of 274 postnatal women, their partners, and 16 LCs, from 01 August 2015 to 30 April 2016. Demographic data, possibility to have a LC, and reasons for not having a LC were collected.

Results: Antenatal clinic was the source of knowledge regarding a LC in approximately 50% of post-natal women and their partners. Among 223 (81%) of post-natal women and 190 of their partners who had this knowledge prior to admission to hospital, main reasons for not having a LC were disliking a LC because they considered it would interfere with their privacy (n=78), and being unable to find a LC (n=62). Although 67% of post-natal women and 62% of their partners thought that availability of a LC was a good practice, they had poor knowledge about its benefits. Mother was the preferred LC in 59% and partner was preferred by 21%. Approximately 67% of partners were willing to be a LC. Of the 16 LC, 12 were the mothers of the post-natal women.

Conclusions: Pregnant women and their partners must be adequately counseled regarding benefits of a LC, and recruitment of volunteers to be LCs must be considered.

EO027

Oral misoprostol for 48 hours versus an intracervical Foley catheter for 48 hours for induction of labour in postdated pregnancies: a randomized controlled trial

Amarasena BA, Goonawardene IMR, Rameez MFM, Perera RN.

Academic Obstetric Unit, Teaching Hospital, Mahamodara, Galle.

Introduction: Oral misoprostol (OM) and supra cervical Foley catheters are recognized methods for induction of labour (IOL).

Objective: To compare the effectiveness of three doses OM 50µg four hourly for 48 hours versus a supracervical Foley catheter for 48 hours for IOL at 40 weeks + 5 days' gestation.

Method: A randomized controlled was conducted at academic obstetric unit, Teaching Hospital Mahamodara, Galle from October 2016 to April 2017. Consecutive women (n=144) with singleton uncomplicated pregnancies having Modified Bishop Score (MBS) <5 at 40 weeks + 5 days' gestation were allocated by stratified block randomization to receive three doses of OM 50µg given four hourly for 48 hours or a supra cervical Foley catheter for 48 hours.

Results: Compared to the Foley, with OM, successful IOL was higher (RR 1.4, 95% CI 1.1 – 1.9, p = 0.029), mean increase in MBS in those not in labour after 48 hours was greater (4.8, 95% CI 4.1-5.4 vs 4.195% CI 3.8-4.4, p = 0.017), vaginal delivery within 24 hours was more (RR 4.2, 95% CI 1.8 -9.6, p < 0.001), induction delivery intervals were shorter, more hyperstimulation and meconium stained liquor were seen, but no significant difference seen in caesarean deliveries.

Conclusion: Three doses of OM 50µg given four hourly for 48 hours were more effective than a supra cervical Foley catheter for 48 hours, for IOL.

EO028

Trial of Labour after Caesarean section (TOLAC) – An Audit

Ranawakage D, Pathiraja RP, Silva KCDP, Jayawardane MAMM.

Department of Obstetrics and Gynaecology, Colombo South Teaching Hospital, Kalubowila.

Introduction: Management of subsequent deliveries of women with a previous caesarean delivery has been debated for many years. The two options are trial of labour after caesarean delivery (TOLAC) and elective repeat caesarean delivery (ERCD).

The caesarean section rate has increased to an alarming extent in the last three decades in the world due to fear of complications associated with TOLAC in subsequent pregnancy and labour. In spite of these concerns, it is important to remember that a successful uncomplicated TOLAC has many short- and long-term benefits.

Objective: The objective of this study was to determine the final outcome of trial of labour after caesarean delivery and develop guidelines to reduce the rate of repeat caesarean section.

Methodology: This study was carried out in professorial Obstetrics and Gynaecology Unit, Teaching Hospital Colombo

South from 2010 to 2017. A total of 319 patients were delivered during this period with a history of at least one previous section. This is a prospective Audit done for the analysis of success rate in trial of labour after Caesarean section.

Results: Out of 319 patients selected for trial of scar, 163 (51.09%) had a successful vaginal delivery and 156 (48.90%) required a repeat emergency caesarean section. 47.9% of the patients had a spontaneous onset of labour and 52.1% needed ripening of the cervix with a Foley catheter.

CS rate in spontaneous labour is 54.11% and CS rate in Foley induction is 45.88%. 98.5% of the babies were born with Apgar Score > 8 and 1.5% had an Apgar score between 6-8. There were 0% cases of scar dehiscence and no cases of ruptured uterus and no intrapartum intrauterine deaths. No serious maternal complications occurred.

Conclusions: More than 50% of the patients with previous one caesarean section for non-recurrent cause can be successfully delivered vaginally. Antenatal booking and follow up, careful case selection for trial of scar augmentation with oxytocin in selected cases and close observations during labour will achieve successful maternal and perinatal outcome.

Category F: Contraception and Fertility Control FO029

Knowledge and practice of contraception among pregnant women attending the antenatal clinic.

Bandara HGWAAC, Amarapathi PWCJ, Niranga KKG.

Teaching Hospital, Kandy.

Introduction: Contraception is an important aspect in spacing between children and acquiring the desired family size. Though there are several options the uptake has been poor. Antenatal clinic population represent a major target population for appropriate post-partum contraceptive counselling.

Objectives: The study examined the socio demographic data of antenatal clinic attendees at Teaching Hospital, Kandy. Knowledge about contraceptive methods, previous contraceptive practice and preference of post-partum contraceptive uptake were evaluated.

Method: Data collection was done using Semi-structured questionnaire and it was administered to 95 pregnant women attending the antenatal clinic in TH Kandy. Data included socio demographic characteristics, knowledge of family planning methods, pre-pregnancy contraceptive use and their anticipated post-partum contraceptive choices.

Results: The mean age of the women was 25.6 years and the mean Parity was 2.1. Majority (98%) of the women were married. Ten women (9.5%) felt that they had poor knowledge about contraception while the rest had fair to excellent knowledge. The prevalence of contraceptive use before current pregnancy was 77 (81%). Preferred method of contraception was; injectable Depo-Provera 42 (44%), combined pills 33 (35%) and male condom 15 (16%). Sixty (63%) women stopped using contraceptive because they wanted to get pregnant. Seventy-five (78%) women planned to use contraceptives after delivery and the implant (55.9%) was the most preferred method of post-partum contraception.

Conclusion: Antenatal women were quite knowledgeable about contraception and majority had plan for contraceptive use post-delivery. Most popular method was post-partum implant. Through effective communication and providing relevant

information it possible to improve post-partum contraceptive care.

FO030

Knowledge, attitudes, and practices of contraceptive methods among post-partum women.

Rajeevan J¹, Pallemulle L¹, Prasanga DPGGM¹, Musthaq ACM¹, Silva PGYS¹, Chandrasinghe SK¹, Hamzathwany R²

¹ Castle Street Hospital for Women, Colombo.

² Faculty of medicine, University of Jaffna.

Abstract: Globally, Family Planning (FP) is recognized as a key life-saving intervention for women and their children. Post partum family planning (PPFP) has an important role to play in strategies to reduce the unmet need for FP.

Objective: Our aim was to assess the knowledge, attitudes, and practices on contraceptive methods and to determine the association between knowledge and attitude on preference of contraceptive methods among post partum women.

Methods and setting: This is a hospital based descriptive cross sectional study with 98 post-partum women who delivered at Castle Street Hospital for Women from April 2017 to May 2017. Their knowledge, attitudes, and practices on contraceptives were evaluated with the help of a pre designed questionnaire.

Results: In the study the mean ($\pm$ SD) age of the study participants was 28($\pm$ 6.1) years with the range of 14 to 44 years. Among them (n = 98) the majority (77.3%) have studied above O/L and 79.5% had monthly income in between Rs. 20,000 to Rs. 100,000. The knowledge of contraception was adequate in 61.2% and 89.6% had a favourable attitude towards contraception. Among the participants 74.4% of said that both husband and wife should be involved in the decision making on contraception. The most common preference was Intra Uterine Contraceptive Device (27.8%), followed by oral contraceptive pills (22.2%) and condoms (22.2%). Only 31.8% have decided on post partum contraceptive method during the antenatal period. The most common source of information on contraception was the antenatal clinic. The knowledge of contraception had a significant positive correlation with educational level and previous contraception usage ($p < 0.05$).

Conclusion: The study revealed that majority of the postpartum women had adequate knowledge and favourable attitude towards contraception. Knowledge of contraception was more with increasing educational level and previous contraception usage. Only a small percentage have decided on a post-partum contraceptive method during their antenatal period.

Category G: Urogynaecology

GO031

A Retrospective study on Vesico-cervical Fistula: 10 cases

Begum B¹, Mehedi K²

¹ Kumudini Women's Medical College, Bangladesh.

² Fistula and Cervical Cancer. UNFPA, Bangladesh.

Introduction: Urinary fistulae between the bladder and the cervical canal are called vesico-cervical fistulae. Here the fistula can not be seen in the vagina. Clinical diagnosis is done by a dye test where dye leaks through the cervix. This type of fistula is not found frequently.

Oral Presentations

Objective: This study was designed to analyse 10 cases of visico-cervical fistulae and preferable route of repair.

Methods and Materials: 10 cases vesico-cervical fistulae in Bangladesh are reviewed. Study period was December 2013 up to May 2017. Detailed history was taken and clinical examination was done to find out the causes. Before operation, very careful evaluation was performed for diagnosis and treatment plan. Sometimes the final diagnosis and surgical plan was decided just preceding the operation under anaesthesia. In some cases, the treatment plan was modified during surgery.

Results: Total 10 vesico-cervical fistulae were repaired by the author. All these cases were delivered by caesarean section, of which two patients needed caesarean sub- total hysterectomy. All were multiparae. Except two cases who had surgical menopause, others eight patients had regular menstrual cycles. Among 10 cases, two were in labour for 8-10 hours and the rest 12 hours or more. Mean duration of leakage was 7.5 years. Six patients started leaking immediately and four started within 7-10 days of delivery.

Of the 10 cases, six were repaired vaginally. Remaining four patients were repaired through combined route, i.e dissection started and almost completed vaginally but the proximal margin was difficult to expose. So ultimately were repaired abdominally through trans-vesical approach.

All the cases were successfully closed at first attempt of repair without any complications.

Conclusion: Vesico-cervical fistula is not common and almost always occurs following caesarean section. This type of fistula mostly results from a vertical tear in the lower segment with associated bladder injury during caesarean section. Regarding the route of repair, vaginal route is mostly preferred. But in some situations, abdominal route cannot be avoided.

GO032

Stress urinary incontinence treated by Trans-obturator tape (TOT): The outcomes and patients' perceptions at six months follow up.

Gunasingha ADHN, Sandaruwan NKTS, Attanayake MMKN, Perera YAG.

Castle Street Hospital for Women. Colombo 08.

Objectives: The health related quality of a woman's life can be significantly impaired by stress urinary incontinence (SUI). Since its introduction in 2001 by Delorme, Trans-obturator tape (TOT) has become a popular procedure among Gynaecologists in treating SUI. The objective of this study was to assess the effectiveness of TOT with regard to outcomes, complications and patients' perception.

Design, setting and methods: A prospective study was undertaken in Ward 05 of Castle Street Hospital for Women. The patients presented to Gynaecology clinic having stress urinary incontinence clinically and underwent TOT were followed up six months postoperatively and assessed for complications, change of the symptoms and patient's perceptions.

Results: Out of 34 patients who underwent TOT, only 28 (82.3%) were accessible at six months' follow-up. No cases of tape extrusions were noted. 2 (7.1%) patients complained of voiding difficulty and tape removal was performed in one (3.5%) of them. De novo dyspareunia was a significant concern in 4 (14.3%) patients while 6 (21.4%) patients were having perineal pain. 2 (7.1%) patients developed de novo urge incontinence. 3 (10.7%) patients didn't note a change in their

condition while 2 (7.1%) proclaimed of worsening of existing SUI. 21 (75%) patients were satisfied with the intervention with observation of complete resolution of the problem in 18 (64.3%) and some improvement in 3 (10.7%) patients.

Conclusions: TOT is an effective treatment for SUI with low surgical morbidity and reported 1-year cure rate of 90%. However, a less cure rate was observed in this study with comparable incidence of complications. Careful patient assessment with emphasis on identifying features of associated pelvic floor dysfunction, differential diagnosis and risk factors is essential. Measures such as pelvic floor muscle training and weight reduction may enhance the favourable outcome of the surgery. Since the correlation between clinical diagnosis and urodynamic diagnosis is poor, patients having vague symptoms would be benefited immensely by referring for urodynamic studies. That may be a contributing factor for a lesser cure rates noted in this study based on clinical judgement. The need for larger scale studies with bigger sample size and longer follow-up duration to analyse long term implications of TOT, particularly in local context is also highlighted in this study.

GO033

Cut-off Scores for International Consultation on Incontinence Modular Questionnaire on Vaginal Symptoms (ICIQ-VS) in Sinhala and Tamil

Amarasekara AMAKG¹, Ekanayake CD², Pathmeswaran A³, Wijesinghe PS³, Liyanage LLC³, Kulasinghe IRMM³, Perera HSS¹

¹ North Colombo Teaching Hospital, Ragama

² District General Hospital, Mannar

³ Faculty of Medicine, University of Kelaniya

Introduction: It is clinically beneficial to have cut-off scores for screening questionnaires, above which a patient can be referred for further evaluation at a specialist center especially in developing countries.

Objective: To calculate cut off scores for ICIQ-VS-Sinhala and ICIQ-VS- Tamil questionnaires.

Methods: The ICIQ-VS- Sinhala and ICIQ-VS-Tamil was administered to women attending the gynaecology clinics at North Colombo teaching hospital, Ragama, District General hospitals, Mannar and Vavuniya. The vaginal symptoms score (VSS), sexual symptoms score (SSS) and the quality of life score (QoL) were analysed against the clinician's diagnosis of significant prolapse using receiver operating characteristic curves (ROC).

Results: The AUC (area under curve) for ROC curves of VSS, SSS and QoL for ICIQ-VS-Sinhala were 0.89 (p<0.001),

0.64 (p<0.02) and 0.75 (p<0.001) respectively. The AUC for ROC curves VSS, SSS and QoL of ICIQ-VS-Tamil were 0.88 (p<0.001), 0.70 (p<0.02) and 0.82 (p<0.001) respectively. The optimal MCIDs for ICIQ-VS-Sinhala were VSS ≥ 8 (sensitivity 88.1%, specificity 73.9%), SSS ≥ 1 (sensitivity 59%, specificity 65%), QoL ≥ 3 (sensitivity 77.8%, specificity 60.4%) while for ICIQ-VS-Tamil VSS ≥ 9 (sensitivity 87.1%, specificity 80.9%), SSS ≥ 1 (sensitivity 76.5%, specificity 61.1%) and QoL ≥ 3 (sensitivity 77.8%, specificity 79.8%).

Conclusion: Both questionnaires yielded promising cut off scores for VSS, SSS and QoL. Cut-off scores of VSS ≥ 9 , SSS ≥ 1 and QoL ≥ 3 for ICIQ-VS-Tamil and VSS ≥ 8 , SSS ≥ 1 and QoL ≥ 3 for ICIQ-VS-Sinhala can be used as a guide for

specialist referral when using ICIQ-VS to screen for pelvic floor dysfunction in Sri Lanka.

GO034

Impact of urinary incontinence on quality of life of women in a community sample in three districts of Sri Lanka – A crosssectional study

Pathiraja RP, Prathapan, S, Gunewardena S.

Department of Obstetrics and Gynaecology Colombo South Teaching Hospital, Kalubowila.

Abstract: Well being of a person includes a good quality of life (QOL), which can be perceived and mediated by many factors. Although Urinary incontinence (UI) has no impact on mortality it is a condition that can significantly affect a person's QOL. This study aims to investigate the impact of UI on the women's QOL.

Methods: This study is a community based cross-sectional study performed in three districts in Sri Lanka targeting women who are above 18 years of age. A sample of 2310 women was selected from 154 clusters of public health midwife areas and from each cluster 15 women were included. An interviewer administered questionnaire consisting of socio demographic factors, medical and obstetric history, and the King's Health Questionnaire (KHQ) were used to gather data. A trend test, Jonckheere –Terpstra test was performed and significance was set at 5%.

Results: Majority of the women in all three districts felt that UI had no impact on their general health. Trend of severity of stress incontinence and urge incontinence showed an impact on QOL, which was statistically significant with each of the domains namely role limitations, physical limitations, social limitations, personal relationships, emotional problems and sleep/energy issues. Coping strategies like wearing sanitary pads to avoid getting wet with urine (5.4%), limiting their fluid intake at all times (11%) were also observed.

Conclusions: the negative effect of UI on QOL needs to be addressed targeting those at risk. Awareness on treatment needs to be addressed, as all QOL domains were affected by UI.

Category H: Fetal Medicine

HO035

Evaluation of the proportion of Genetic Disorders detected at prenatal testing in a Tertiary fetal medicine referral centre

Padeniya AGPM¹, Dias TD¹, Punchihewa C².

¹ Faculty of Medicine, University of Kelaniya, Sri Lanka.

² Lanka Hospital Diagnostics Pvt, Ltd., Colombo.

Objective: Prenatal suspicion of fetal chromosomal aneuploidies is the most common indication for invasive prenatal testing. Amniocentesis followed by genetic testing for chromosomal aneuploidies is the diagnostic technique for prenatal detection of chromosomal disorders. Prenatal detection of these disorders would enable timely medical or surgical treatment of a condition before or after birth. It further "prepare" the family psychologically, socially, financially, and medically of a baby with a health problem or disability or for the likelihood of a still birth. The objective of this study was to evaluate the proportion of

genetic disorders detected at prenatal testing procedures at a Tertiary Fetal Medicine referral centre.

Methods: A retrospective study was carried out from 2016 October to 2017 April in all invasive procedures done in the Fetal Medicine Unit, Ninewells Care Mother & Baby hospital, Colombo, Sri Lanka. Prenatal samples were analyzed by Fluorescent in situ hybridization for the common chromosomal aneuploidies including chromosome number 13, 18, 21, X and Y and by karyotype. Patient information and details of invasive procedures were obtained from the Fetal Medicine Unit database.

Results: A total of 57 prenatal examinations was performed during the study period of which 55 were amniocentesis and 02 were cordocentesis procedures. The mean maternal age at which the procedure was performed was 33 years (SD=6.3). The commonest indication for the prenatal testing was increased nuchal translucency (NT) thickness (27) detected at the NT scan. The other common indications for prenatal detection were atrioventricular septal defect (5), omphalocele (4), non-immune hydrops (3) and Diaphragmatic hernia (2) detected at the second trimester scan. There were 3 who had elevated double test and 1 with increased Non Invasive Prenatal test result which directed them for prenatal testing. Chromosomal abnormalities were detected in 13 fetuses of which majority were Trisomy 18 (5). Trisomy 21 and Trisomy 13 syndromes were detected in 4 and 3 fetuses respectively. Of the 27 fetuses who had elevated NT thickness, 4 fetuses were Trisomy 21. Fetuses who had structural abnormalities 4 had Trisomy 18 syndrome. There was one which had Trisomy 21 mosaic syndrome and one with Turner mosaic syndrome.

Conclusion: Testing for diseases or conditions in a fetus/embryo by an invasive method before it is born would enable the doctors to improve the outcome of the developing fetus/embryo hence prepare the family for an anticipated problem.

HO036

A multicentre study on pattern of fetal anomalies detected in Sri Lanka

Padeniya AGPM, Dias TD, Ediriweera DS, Mendis BMIU.
Faculty of Medicine, University of Kelaniya, Sri Lanka.

Objective: Prenatal diagnosis is a rapidly evolving specialty in modern medicine. The mid-trimester scan has been an important practice in safe antenatal care which predicts birth defects of the developing fetus. This scan performed during 18-23 weeks of pregnancy detects both internal and external abnormalities of the fetus. The objective of this study was to present the pattern of fetal anomalies detected in Sri Lankan pregnant women who were referred for the anomaly scan.

Method: A multi centre retrospective study was carried out in all the fetal medicine referral centers conducted in the Island including Colombo, Ragama, Galle and Kurunegala between July 2013 and March 2017. Patient information and the ultrasound scan findings were obtained from the purpose built database maintained by the authors.

Results: A total of 7370 referrals were reviewed and 6704 singleton pregnancies were selected. The mean maternal age and the mean gestational age at which the anomaly scan was performed were 31 years (SD=4.9) and 23 weeks (SD= 4.5) respectively. Congenital Heart Disease (CHD) was the commonest abnormality detected in the study group 149 (2.2%). Thirty-one (0.5%) fetuses had Atrioventricular Septal Defect which predicts Down syndrome at the mid-trimester

Oral Presentations

scan. Majority (8.3%) of the CHD were referred from the Uva province. Of the 7370 referrals 63 (0.9%) and 27 (0.4%) had Neural Tube Defects (NTDs) and cleft lip/palate respectively. Highest percentage (4.4%) of NTDs were referred from the North Central province and cleft lip/palate referrals were commonest in Sabaragamuwa (0.9%) province. Abdominal wall defects and cystic renal disease were detected in 33 (0.5%) and 38 (0.6%) fetuses correspondingly. Referrals received from the Uva (1.9%) province reached the highest number of abdominal wall defects and cystic renal disease referrals were peaked in the Uva (7.4%) province. Forty-eight (0.7%) referrals had Congenital Talipes Equino Varus deformity and highest number of referrals was from the Eastern (2.4%) province.

Conclusion: Referrals received from the Uva province had highest number of fetal anomalies (20%) either as a major or minor birth defect. Of the total referrals congenital heart defect was the commonest congenital abnormality detected in the study group.

HO037

The prevalence of fetal growth restriction (FGR) in Point Pedro, Sri Lanka

Sheyamalan S.

Base Hospital Point Pedro, Sri Lanka.

Abstract: The prevalence of fetal growth restriction (FGR) in Point Pedro, Sri Lanka

Introduction: Sub-optimal fetal growth is an important cause of perinatal mortality and morbidity. Approximately 30 million new-borns per year are affected with FGR in developing countries and highest burden of prevalence lies in South East Asia (75%). In Sri Lanka 13% of new-borns was low birth weight in 2013. Antenatal detection and management of FGR is relatively low compared to developed world due to scarcity of resources and limited availability of fetal medicine units.

Objectives and Methods: This descriptive retrospective three-year study describes prevalence of pregnancies complicated with FGR, risk factors for FGR, and pregnancy outcome. FGR is diagnosed by fetal abdominal circumference (AC) < 10th centile on ultrasound and change in AC of <5mm over 14 days. The study also aimed to find association of early-onset FGR (EOFGR) and late-onset FGR (LOFGR) with monitoring parameters and pregnancy outcome.

Results: Pregnancies complicated with FGR were 137 (4.8% prevalence). Majority of them (65%) were primigravidae, 43% of women had BMI <20, and 11.6% had hypertensive disease. Only 10.9% were more than 35 years old. Majority of cases (51.8%) were LOFGR while EOFGR was seen in 34.3% of cases. FGR was undiagnosed in 14.5% of mothers. One sixth of fetuses (17.5%) had abnormal fetal umbilical artery Doppler (FUAD) and pre-term delivery was seen in 26.2%. Two fifth of women were induced and Caesarean section was performed in 38.6% and 4.3% had instrumental deliveries. Perinatal mortality was 9.4% and majority of them (84%) were intra-uterine fetal death. One fifth of babies (21.8%) were born with very low birth weight. The association between EOFGR and very low birth weight babies (OR 3.78; P=0.003) was significant. There was no relationship between BMI <20 and VLBW babies (OR 0.69; 95% CI 0.30 to 1.60) and between EOFGR and caesarean delivery (OR 2.44; 95% CI 1.13 to 5.26). The association between EOFGR and abnormal doppler parameter is very significant (OR 5.73; P=0.0006). Adverse pregnancy outcome is seen in babies who developed EOFGR.

Conclusion: There is a lesser prevalence of FGR in Point Pedro compared to the national figures. More than 50% are LOFGR.

Each hospital should develop a protocol for the detection and management of FGR and the available resources like Doppler ultrasound should be optimally utilised. Establishing regional centres in fetal medicine each province should be developed in the near future.

HO038

Fetal cardiac ultrasonography: An optimum gestational age of assessment

Perera MNI¹, Kulasinghe IRMM², Dias TD¹

¹North Colombo Teaching Hospital, Ragama.

²Faculty of Medicine, University of Kelaniya.

Objectives: To identify the ability of acquiring fetal cardiac images at different gestational age windows using ultrasound scan.

Design, setting and method: This was a prospective descriptive study using ultrasound machine “Alpinion EC-15 V4.0” and “Toshiba Aplio 300”. Fetal cardiac views at gestational age from 11 to 30 weeks were obtained by an expert in obstetric fetal echo. Low risk women with singleton pregnancy were recruited. The sample was stratified into 5 gestational age windows between 11 and 28 weeks. Ability to view four chambers, right and left out flow tracts, three vessels, aortic arch, ductal arch and superior and inferior vena cavae at each gestational window was assessed.

Results: A total of 313 pregnant women were analyzed. All seven fetal cardiac images were obtained at the gestational age of 18 weeks to 25+6. There was a sub-optimal acquisition of the three vessels and SVC/IVC (96.3%) at 26-30 weeks. Six out of seven cardiac images were possible in more than 80% of cases from 14 to 17+6 weeks. At the gestational age between 11 weeks to 13+6, the ability to view four chambers was 92.98% and the ability to view the rest of the images was as follows: right out flow tract – 38.6%, left outflow tract – 42.11%, three vessels – 38.6%, aortic arch- 36.84%, ductal arch- 35.09%, superior and inferior vena cavae-5.26%.

Conclusion: Ability of acquiring fetal cardiac views was best at 18 to 25+6. Cardiac image acquisition is sub optimum in early gestations and beyond 26 weeks.

Category I: Post Partum Haemorrhage

IO041

Vacuum Suction haemostatic Device for Treating Post Partum Haemorrhage

Panicker V.

Paniker's Hospital Kodungallur, Thrissur, Kerala.

Objective: To find out a safe, simple and sure technique for preventing and treating PPH there by decreasing maternal mortality and morbidity which will be a useful method to treat PPH in low resource setup, primary care setup where even paramedical personnel can use the method in emergency situations very safely and effectively.

Methods: Forty women who had normal vaginal deliveries and fifteen women who had LSCS were included in this study during the last four-year period in a low resource

maternity hospital where there are 1000 deliveries in one year. All these 55 women developed PPH inspite of using uterotonic drugs according to the protocol. Four women developed atonic PPH and the blood loss was more than 1500ml. A specially made plastic cannula of 12mm in diameter and 25cm in length with multiple holes of 3mm diameter at the distal 7cm of the cannula was introduced in to the uterine cavity through the vagina to reach the fundus. The cannula was connected to a suction machine and a negative pressure of 700mm mercury was produced.

Result: The negative suction resulted in sucking out all the blood collected in the uterine cavity. The quantity of blood sucked was 50 to 300 ml. When the collected blood was completely sucked out, the bleeding ceased. The suction was maintained for 30 minutes. Then the cannula was taken out slowly after releasing the suction. There was no further bleeding from the uterine cavity and the uterus was well contracted. Five patients had fresh bleeding from the vagina even after the procedure. They were all found to have vaginal tears which were sutured.

Conclusion: The strong negative suction produced in the uterine cavity by the special cannula resulted in sucking out all the blood and blood clots. The inner surface of the uterine cavity got strongly sucked in by the cannula. The bleeding points are permanently closed due to the clot formation within 30 to 40 minutes. This is a very simple, safe, sure and inexpensive technique to control and cure PPH with absolute success. A mechanical suction unit of ventouse or MVA syringe can also be used.

IO042

Severe acute maternal morbidity in a tertiary care institution in Sri Lanka: related interventions.

Bambaranda BG¹, Wijesinghe R¹, Pathiraja M³, Sanjeevani D¹, Ramachandran R¹, Senanayake HM².

¹ De Soysa Hospital for Women, Colombo.

² Department of Obstetrics and Gynaecology, University of Colombo.

³ Colombo North Teaching Hospital, Ragama.

Objectives: With declining maternal mortality ratio in Sri Lanka, detailed assessment of maternal deaths to make conclusions on quality of care is becoming inadequate. As a solution to this problem WHO introduced the severe acute maternal morbidity or “near miss” approach. This has facilitated identifying near misses in order to raise awareness, promote reflection of quality-of care and foster changes towards the improvement of maternal health care. The aim of our audit was to assess maternal deaths and SAMM in order to identify strategies which can be undertaken to improve quality of care.

Design, setting and methods: This clinical audit was carried out at the De Soysa Hospital for Women from 1st of January 2015 to 1st of January 2016 using WHO near miss criteria. Data were collected prospectively on maternal deaths and SAMM, fulfilling WHO criteria. Only the patients with organ dysfunction were selected.

Results: There were 72 near misses and 7 maternal deaths among 8268 confinements during the study period. This gave a severe maternal outcome ratio of 9.55 per 1000 live births, maternal near miss ratio of 8.7 per 1000 live births, maternal near miss mortality ratio of 72:7 and a Mortality index of 9.7%.

The main contributory cause for near misses was haemorrhage while there were 22 cases due to hypertension and pre eclampsia, 7 cases due to eclampsia, 4 cases due to HELLP syndrome, 9 cases due to heart disease, 5 cases due to dengue

haemorrhagic fever, 2 cases due to respiratory disease, 2 cases due to sepsis, 2 cases due to renal disease and 1 case due to epilepsy. The main cause for haemorrhage was morbidly adherent placenta.

Conclusions: Severe acute maternal morbidity can be used as a tool to monitor quality of care and make recommendations to provide better care. Despite improvements in quality of care, haemorrhage is still the leading cause of severe acute maternal morbidity at the De Soysa hospital for women. Many near misses would have been prevented with better prenatal care and identification of risk factors. Proposed strategies include monthly risk management meetings to analyse and to identify weak aspects of management, and arranging workshops to improve knowledge and skills on evidence based practice. Weekly multi-disciplinary team clinics including Obstetrician, Cardiologist, Haematologist, Anaesthetist, Nutritionist, and Radiologist will improve decision making and patient care.

IO043

Caesarean Hysterectomy Without Blood Loss and A New Method to Treat PPH Successfully

Panicker TNV.

Paniker's Hospital, Kodungallur, Thrissur, Kerala.

Abstract: A new haemostatic suturing technique during post partum hysterectomy, using a forcep designed for insertion of ligatures around the cervix (PUL), is described. During caesarean hysterectomy the uterus is exteriorized and the bladder is pushed down. Two pieces of no. 1 vicryl 50 cm in length are held at the tip of the PUL forceps. The tip of the PUL forceps with the vicryl is inserted from anterior to posterior aspect at the centre of the cervix just above the bladder. The forceps tip is opened and the threads pulled out, and tied as tight as possible on either side of the cervix. This will occlude the blood supply to the uterus which aids hysterectomy with minimum blood loss. In some cases of placenta praevia accrete where the bladder may be adherent to the uterus and there are vascular connections between the uterus and the bladder, the haemostatic suture is tied just above the bladder. The vascular connections are then coagulated or tied and then the bladder is pushed down and another haemostatic suture is inserted just above the bladder before proceeding to hysterectomy.

A novel technique to prevent and treat PPH successfully is the use of PPH suction device. A cannula specially designed for the purpose is introduced into the post-partum uterine cavity and connected to a suction machine to obtain a negative pressure of 700mmHg. The negative pressure is maintained for 5 to 10 minutes. Bleeding from the uterine cavity is controlled due to the negative pressure of suction exerted on to the inner wall of the uterine cavity. This is a safe technique that can be practiced by paramedical personnel.

Category J: Antenatal Screening and Early Pregnancy

JO044

Inter and intra observer variations in symphysio-fundal height measurements between 30 to 36 weeks' gestation

Perera RN, Goonewardene IMR, Amarasena BA.

Academic Obstetric and Gynaecology Unit, Teaching Hospital, Mahamodara, Galle, Sri Lanka.

Introduction: Inter and intra observer variations occur when measurements are obtained.

Objectives: To study inter and intra observer variations in measurement of SFH and xiphisternum to symphysis pubis (XS) length, between 30 to 36 weeks' gestation.

Method: SFH and XS length measurements were obtained by two investigators at gestational ages (GA) 30,32,34, and 36 weeks in 400 women attending the antenatal clinic of academic unit, Teaching Hospital Mahamodara, Galle from 05 October 2016 to 31 March 2017. The investigators were blind to the women's GA and to each other's measurements. The primary investigator (PI) repeated the SFH measurement, being blind to the initial measurement. The limits of agreement and clinical limits of indifference were calculated for the measurements obtained by the two investigators and the two measurements obtained by the PI.

Results: Limits of agreement between SFH measurements obtained by the two investigators and XS length measurements obtained by the two investigators ranged from -2cm to +2cm. There were >10% of measurements of SFH and XS length by the second investigator which varied by >1cm from the SFH and XS length measurements obtained by the PI. There were ≤5% of repeat measurements of SFH and XS length obtained by the PI which varied by >1cm compared to the initial measurement.

Conclusion: The limits of agreement between the SFH and XS measurements obtained by the two investigators were wide. Inter observer variations of >1cm were greater than intra observer variation of >1cm.

JO045

A study of Mental health outcome and perceived care needs following miscarriage

Pathiraja R, Karunathilake Y, Kathriarachchi S.
Colombo South Teaching Hospital, Kalubowila.

Introduction: Miscarriages affect 14% - 18% of pregnancies. About 50% of them suffer some psychological morbidity. Anxiety and depressive symptoms are common and major depressive disorder was reported in 10-50%. No studies have been done in Sri Lanka to assess the psychosocial impact of miscarriages.

Aims: To assess the prevalence of anxiety, depression, stress, psychosocial consequences and perceived care needs among patients with spontaneous abortions.

Methods: A cross sectional descriptive study was carried out on 305 women in three Gynaecology units in Colombo South Teaching Hospital from March to September 2016. All consenting patients with spontaneous first trimester miscarriages were included. Data was collected by using the validated Sinhalese translation of Depression Anxiety Stress Scale and study specific questionnaires to assess the psychological consequences and perceived care needs which was designed and pretested.

Results: Majority (94%) of women were in the age group of 26-30 years. Ninety-seven percent were married. Majority (67%) were housewives and in 40% it was the first pregnancy and only 52% of pregnancies were planned.

The most common psychiatric consequence following miscarriage was anxiety symptoms (66%), followed by depressive symptoms (55%) and stress (50%). Miscarriage has resulted in a significant stress level when the pregnancy was

planned ($p < 0.05$) and also among multiparous women compared to primigravidae ($p < 0.05$). There was no significant association of psychological symptoms with the place of residence and employment.

The majority was satisfied with the care they received at the hospital. However, the explanation about the illness and patient involvement in decision-making was unsatisfactory.

Conclusions: Psychological symptoms are common following miscarriages, emphasizing the need of psychological support. A simple and effective screening tool is important, which allow a timely referral of these patients for psychiatric assessment and appropriate treatment. There is a need to assess the impact of miscarriage on the partners of these women.

JO046

Does the length from the xiphisternum to the symphysis pubis affect the symphysio-fundal height measurements between 30 to 36 weeks' gestation?

Perera RN, Goonewardene IMR, Amarasena BA.

Teaching Hospital, Mahamodara, Galle, Sri Lanka.

Introduction: The length from the xiphisternum to the symphysis pubis (XS) could affect the symphysio-fundal height (SFH) measurements.

Objective: To study the association of XS length with SFH measurements, from 30 to 36 weeks' gestation.

Method: SFH and XS length measurements were obtained by two investigators at gestational ages (GA) 30, 32, 34, and 36 weeks in 400 women attending the antenatal clinic of the academic unit of the Teaching Hospital Mahamodara, Galle, from 05 October 2016 to 31 March 2017. The investigators were blind to the GA and to each other's measurements. The association of changes in XS length with SFH measurements, were studied

Results: Increasing length of XS was associated with increasing SFH measurements, and this effect progressively increased with increasing GA. The Pearson's Correlation coefficients increased from 0.23 at 30 weeks' gestation to 0.82 at 36 weeks' gestation ($r^2 = 0.67$, $p < 0.001$). The mean SFH measurement at 36 weeks' gestation increased from 29.2 cm (95% CI 28.7 – 29.7) at a XS length of 35cm, to 41.0cm (95% CI 40.0 – 42.0) at a XS length of 49.5cm.

Conclusion: Increasing XS lengths result in progressive increase of SFH measurements between 30 to 36 weeks' gestation and this effect increases with increasing gestational age.

Category K: Oncology and Menopause

KO047

A comparison study of liquid based cytology with conventional Pap smears with regard to obtaining a satisfactory sample for cytological evaluation.

Sigera, RC¹, Weerasekera DS¹, Samarasinghe K¹, Mannanayake KR¹, Ariyawansa G¹, Rupasinghe PD².

¹ Neville Fernando Teaching Hospital, Malabe.

² South Asian Institute of Technology and Medicine, Malabe.

Objectives: To compare if liquid based cytology is superior to conventional Pap smears with regard to obtaining a satisfactory sample for cytological evaluation.

Design, setting and methods: A retrospective analysis of 537 consecutive Pap smears done in NPTH during a period of three years was done. All Pap smears were carried out at the gynaecology clinic, Outpatient department and gynaecology ward. Pap smears were carried out by conventional and liquid based cytology. All smears were reported as per the 2001 Bethesda system. Chi-square was calculated separately to see the significance whether liquid based cytology is superior to conventional Pap smears.

Results: From a total of 537 Pap smear reports, there were 527 (98.1%) satisfactory samples whilst 10 (1.9%) were unsatisfactory. Liquid based cytology was used in 439 samples and conventional Pap smear was carried out in 98 samples. Out of the 10 unsatisfactory samples, 9 (90%) were from liquid based cytology and 1 (10%) from conventional Pap smears. The cellular atypia was 9.1% in conventional pap smears with 7 samples in LSIL and 2 samples in AGC. The cellular atypia of 7.8% was present in liquid based cytology with 27 samples in LSIL, 3 in ASCUS, 3 in AGC and 1 malignant. The Chi-square test was not significant ($X^2 = .465$, $p > .05$).

Conclusion: Liquid based cytology is not superior to conventional Pap smear with regard to obtaining a satisfactory sample or in the detection of cellular atypia.

KO048

Advanced carcinoma of the cervix in a 21-year-old woman.

Bandara GWK¹, Hapuarachchi C².

¹ Teaching Hospital, Kandy.

² Apeksha Hospital, Maharagama.

Abstract: Advanced carcinoma of the cervix in a 21-year-old woman

Introduction: Carcinoma of the cervix is the commonest malignancy of the female genital tract and the second commonest malignancy in women. Cervical cancer has been linked with infection with the human papilloma virus (HPV) mainly types 16 and 18. Other predisposing factors include smoking, early age at sexual exposure and HIV infection. Cervical cancer is seen mostly in the older age group and is rarely seen below 40 years of age because of the need for prolonged exposure to HPV.

Casereport: A 21-year-old woman married for two and half years and with one child presented with abnormal vaginal bleeding and offensive watery vaginal discharge of two months' duration. The patient attained menarche at the age of 14 years and had no history of sexual exposure before marriage. She did not smoke or partake alcohol. She had no family history of breast, cervical or any other cancer. Examination revealed a cervical mass about 2cm in diameter with spread to the upper third of the vagina. There was no involvement of the parametrium. Clinically, this was FIGO stage IIa cancer of the cervix. The patient underwent radical hysterectomy and histology showed squamous cell carcinoma.

Discussion: Patient presented here is one of the youngest reported patients with cancer of the cervix. In contrast to the high rate of infection with HPV in sexually active adolescents, invasive cervical cancer is very rare in women younger than 21 years and contribute only 0.1% of all cervical cancers. This situation can be explained by the natural history of the disease.

This case also illustrates some of the problems encountered by health care providers in the country.

Conclusion: There is a need for HPV vaccine to be included in our National Programme of Immunization (NPI) for teens. If this had been done in this case where we did not know the HPV status, her early disease might have been prevented. The cost of vaccination is far less compared to the cost of treatment any established case of cancer.

KO049

Hysteroscopy as a diagnostic and an operative tool – Case series

De Silva BPGN, Bodhinarayana TN,
Herath HMPS, Gunaratne MDSK, Karunaratne SMG.
Sri Jayewardenepura General Hospital, Nugegoda.

Abstract: Hysteroscopy as a diagnostic and an operative tool-Case series

Introduction: With the increasing trend towards minimal invasive procedures, hysteroscopy is used as an intrauterine diagnostic and an operative tool. A wide range of surgical procedures has gained improved diagnostic accuracy as well as fewer complications.

Objectives: To assess the challenges, complications and outcomes of Hysteroscopic procedures

Method: Data from 34 cases of hysteroscopic procedures over a period of nine months (2016/07–2017/04), performed at a tertiary care hospital in Sri Lanka, were analyzed. All procedures were carried out under general anaesthesia and performed by either the Consultant, Senior Registrar or Registrar. 0.9% Normal saline was used as the distension medium in all cases.

Results: Age distribution was 30 to 52 years and parity ranged from 0–5. Majority of the cases presented with abnormal uterine bleeding (73%) and dysmenorrhoea (11%), post-menopausal bleeding, Subfertility and missing IUCD were among the rest.

The mean duration for the procedure was 33 min (range 15 –60 min) where as the mean volume of saline used was 1185ml (range 250 – 7000ml). Among the 34, 17 (50%) had endometrial polyps and 2 had submucosal fibroids which were removed and directed biopsies were taken in 12 cases.

Median post-operative stay was one day while three had complications including electrolyte imbalance, abdominal pain and acute urinary retention which were managed conservatively.

Conclusion: Hysteroscopy is a minimally invasive, accurate and safe procedure which can be used in diagnostic and operative procedures.

KO050

A study to determine the importance of cervical screening in women below 35 years of age

Sigera RC¹, Weerasekera DS¹, Samarasinghe K¹, Mannanayaka KR¹, Ariyawansa G¹, Rupasinghe PD².

¹ Neville Fernando Teaching Hospital, Malabe.

² South Asian Institute of Technology and Medicine, Malabe.

Objectives: To study the importance of screening of young women for cervical dysplasia.

Design, setting and methods: A retrospective study was carried

Oral Presentations

out on 537 consecutive cervical smears which were done at NPTH during a period of three years. Cervical smears were carried out by conventional and liquid based cytology. All smears were reported as per the 2001 Bethesda system. Sample was divided into two groups according to the ages less than 35 and more than 35 years to study the importance of early screening. A correlation was done between the microscopic findings and the age.

Results: From a total of 537 Pap smear reports, there were

527 (98.1%) satisfactory samples whilst 10 (1.9%) were unsatisfactory. There were 60 samples from women below 35 years of age out of which, cellular atypia was present in 21.7% with one patient had cervical malignancy. Out of 477 samples in women above 35 years, cellular atypia was noted in 6.2% and there was no malignancy detected.

Conclusion: The importance of cervical screening in women below 35 years is emphasized. It appears that with advancing age the incidence of cellular atypia is decreasing.

KO051

Health seeking behaviours related to vaginal discharge among women living in an urban slum community

Ilankoon IMPS, Goonawardena CSE, Fernandopulle RC, Perera PPR.

University of Sri Jayewardenepura, Sri Lanka.

Background and Objective: Abnormal vaginal discharge (leucorrhoea) is a common gynaecological complaint among women aged 15 to 49 years which leads to distress and discomfort to many women. This study aimed at describing knowledge, attitudes and health seeking behavior associated with vaginal discharge among females aged 18 - 49 years living in an urban slum community in Colombo District, Sri Lanka.

Design, setting and methods: A community based descriptive cross sectional study was conducted using a self-developed, validated, pretested Interviewer Administered Questionnaire. Multi stage cluster sampling with stratification method was adopted to select 550 women during September-December 2015. Descriptive and relevant inferential statistics were used in analysis.

Results: The majority of women was unemployed (89.5%) and was married (92%). The mean age of the women was 32.51 (SD±7.94) years. Mean knowledge score was 29.18 (SD±8.68). Most women (97.1%) had inadequate level of knowledge (<50%). Major areas of knowledge deficit include causes for pathological vaginal discharge and reproductive tract infections. Nearly half of the participants identified HIV as a sexually transmitted infection. Majority of them (82.2%) identified high body temperature as the main causes for abnormal vaginal discharge.

Majority (95.8%) agreed that abnormal vaginal discharge should be taken seriously and it is necessary to take treatment for offensive vaginal discharge by 92.5%. Among women who accepted (78.2%) that vaginal discharge was a concern, only 32.7% had consulted a General Practitioner for medical advice. Majority mentioned that feeling difficulty in discussing with a male doctor (87.5%), less knowledge about vaginal discharge (61.1%), and considering vaginal discharge as normal (51.6%) as the reasons for not seeking medical advice for vaginal discharge. There was a significant relationship with the knowledge score and the treatment seeking from a General Practitioner ($p=0.042$). Symptoms such as burning sensation, lower abdominal pain,

itchiness and scratching were associated with consulting a General Practitioner for abnormal vaginal discharge ($p < 0.05$). Many have used home remedies such as Fenugreek (Uluhal) (52.0%), and 'polpala' herbal drink (45.3%).

Conclusion: The findings of the study imply the importance of educating women regarding vaginal discharge which can improve the health seeking behaviours among them. The culture specific health education intervention measures need to be targeted in order to improve their knowledge, attitudes and practices towards vaginal discharge as well as disease prevention and health promotion.

KO052

Knowledge and attitudes towards menopause in peri menopausal age - A prospective descriptive study

Prasanga DPGGM, Pallemulla LC, Chandrasinghe SK,
Niranga KKG, Athulathmudali SR, Silva PGYS.
Castle Street Hospital for Women, Colombo 08.

Introduction: Perimenopause or the menopausal transition takes place over several years in advance of the menopause. It can last for 4 to 8 years. It is frequently the time period women will experience the most common symptoms of menopause. Therefore, women should be ready to accept the changes and need to develop strategies to overcome the up coming challenges. Therefore, women need to have sound knowledge and awareness to face this biological phenomenon successfully.

Objective: Assessment of knowledge and attitudes towards menopause in perimenopausal age women.

Method: A prospective descriptive study woman between the ages of 40-50 years, who attended the gynaecology clinic from January to March 2017. Who have not reached menopause and not under treatment for perimenopausal symptoms were recruited.

Pre-prepared questionnaire was used to collect data. It contained questions on menopause, changes in the menstrual cycle, perimenopausal symptoms, associated risks, available treatment options, adverse effects of them, and the necessity of contraception.

Results: A total of 66 women were interviewed. 50% (33/66) of them knew about menopause. 65% (43/66) accepted it as a natural phenomenon and 10% (6/66) were worried about it. 25% (17/66) have never thought of it. 85% (56/66) knew about menstrual changes. Majority thought of irregular cycles (65%) and 8% as infrequent cycles, and 12% as heavy menstrual cycles. Satisfactory knowledge about vasomotor symptoms 45%, sexual lifechanges 66%, Psychological changes 65%, musculo skeletal changes 76% and other symptoms (palpitations, mastalgia, urinary) 33%. 59% knew about osteoporosis risk but only 44% knew about cardiovascular risks. 55% knew about non pharmacological methods, 50% knew about HRT. 9% had good knowledge of non-hormonal treatments. Necessity of contraception was confirmed by 80%.

Conclusion: Generally, knowledge regarding the menopause and its complications is unsatisfactory in our study population except few components like menstrual changes and necessity for contraception. However, majority had positive attitudes toward menopause. Therefore, community based awareness

sprogrammes need to be started to ensure a comfortable postmenopausal life for every woman.

DOI: [hTTP://DOI.ORG/10.4038/SLJOG.V39I5.7814](http://DOI.ORG/10.4038/SLJOG.V39I5.7814)www.slkog.lk/sljog

Abstract

e-Poster Presentations

EP01**A case report of isolated massive splenomegaly in pregnancy**

Madumali HGH, Randeniya C, Rishard MRM, Salih FA.
Department of Obstetrics and Gynaecology, Faculty of
Medicine, Colombo.

Background: Splenomegaly in pregnancy is rare but a challenging medical problem. It could be due to a variety of causes such as infections, inflammation, hematological disorders (leukemias, lymphomas, Myeloproliferative disorders) and portal hypertension. Cases of hematological malignancies tend to have a poor outcome compared to infections and inflammatory causes.

Case report: A 33-year-old housewife was found to have isolated moderate splenomegaly in her first pregnancy in year 2013. Her first baby was delivered at term by an elective LSCS. In her second pregnancy the clotting profile, liver functions and cell counts were in the normal range. Ultrasound appearance of liver was normal. Upper GI endoscopy revealed grade 2 varices. She was Janus Kinase mutation (JAK-2) positive. She was managed with inputs from a multidisciplinary team including Obstetrician, Hematologist, GI Surgeon, and Anesthetist. The baby was delivered by elective LSCS and ligation and resection of tubes was done. Immediate postpartum period was managed in ICU. Her bone marrow biopsy is planned to be done in three months after the delivery to investigate further.

Conclusion: Splenic rupture in pregnancy is associated with high maternal and fetal morbidity and mortality. Therefore, careful evaluation and management of splenomegaly in pregnancy is necessary.

EP02**Audit on identification of Rhesus status and practice of anti-D antibody prophylaxis for early pregnancy complications**

Bandara S¹, Kandauda C², Wijewardana G¹, Kalaimara P¹,
Priyadarshana P¹.

¹Teaching Hospital Peradeniya, ²Teaching Hospital, Peradeniya,
Sri Lanka.

²Department of Obstetrics and Gynaecology, Faculty of
Medicine, University of Peradeniya, Sri Lanka.

Objectives: To audit the practice of anti-D prophylaxis in early pregnancy complications.

Methodology: Thirty-seven patients with early trimester miscarriages and 35 patients with confirmed ectopic pregnancies who admitted to Professorial Gynaecology ward, teaching hospital, Peradeniya over a period of one year were included. Data were gathered retrospectively from bed head tickets.

Results: Mean age was 28.4 (± 6.4) years and mean POA was 123.9 (± 26.7) days among the 37 patients who had a miscarriage. Medical management was successful in 24.3% of them, surgical interventions were done in 40.5% and in 35.1% a combination was necessary. Among the sample 81.1% were rhesus positive, 2.7% rhesus negative and 16.2% of the occasion rhesus status was not documented. Anti-D prophylaxis coverage was 100% in those who had undergone surgical management.

Mean age of the patients with ectopic pregnancies were 30.4 (± 4.9) years and mean period of gestation was 51 (± 10.9) days. Surgical management was done in 94.3% of the occasion. Among them two were Rh negative and anti-D prophylaxis coverage was 100%. Rh status was documented in every case.

Conclusion: In 16.2% of miscarriages the rhesus status was not documented. It is essential to cover all non-sensitised rhesus negative women with anti D prophylaxis to minimize rhesus iso-immunisation. Improved identification and documentation of the rhesus status leading to timely intervention is necessary to improve the outcome.

EP03

Risk factor survey for intrauterine deaths among mother who attended Teaching hospital Peradeniya over the last five years

Bandara S¹, Kandauda C²; Wijewardana G1 Kalaimara P¹, Priyadarshana P¹.

¹Teaching Hospital Peradeniya, Sri Lanka.

²Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Peradeniya, Sri Lanka.

Objective: To study the risk factors and associations for intra-uterine death (IUD)

Methodology: This is a retrospective study; data has been traced from bed head tickets and maternity cards over last five years among 48 patients who presented to antenatal wards, Teaching Hospital Peradeniya. Mean age was 31.94 years (± 6.1). Eighteen (37.5%) were above the age of 35 years and 5 (10.4%) were above 40 years; 35.4% were primigravidae. The education level among 70.8% was less than ordinary level. Mean booking POG was 60.5 days (± 22.3 , n=48), mean BMI was 23.6 kg/m² (± 5.3), Mean PPBS value was 94.6 (± 32.8) mg/dl. Among IUD fetuses 10.4% was identified as fetal growth restriction and 4.2% were multiple pregnancies. Four (8.4%) had PIH and 3 (6.3%) had GDM. Among them 4 (8.3%) were Rh negative mothers. All mothers were negative for HIV and VDRL. All mothers were given supplements including vitamins, iron and food adjuvants. Mean number of antenatal clinic visit was 5.3 (± 1.65). Mean age of the partner was 36.4 (± 6.7) years, 72.9% of them had an education level less than O/L. In IUD pregnancies, mean admission gestational age was 237.8 (± 27.9)

Advanced abdominal pregnancy resulting in a live birth is a very rare and complex condition demanding challenging management. Abdominal pregnancies have a higher chance of mortality and morbidity for both the mother and the fetus compared to intra uterine and tubal ectopic pregnancies but on occasion a healthy

days. Ten (20.8%) had congenital gross anomalies.

Conclusion: Advanced maternal age, low education level among the couples and medical disorders such as PIH and GDM are identified as common maternal risk factors for IUD. Congenital anomalies, fetal growth restriction and multiple pregnancies were contributors. Adequate antenatal clinic attendance, adequate coverage with supplements and low prevalence of STDs within the population were positive aspects.

EP04

An advanced abdominal extra uterine pregnancy resulting in a live birth. A Case Report

Nazneen S Begum N

Department of Gynaecology & Obstetrics, Comilla Medical College, Bangladesh.

Background: Steroid cell tumour of the ovary is a rare tumour accounting for less than 0.1% of all ovarian tumours. It is a subgroup of sex cord ovarian tumours and may present at any age from 8 to 80 years. These tumours can secrete steroids such as testosterone and cause symptoms like hirsutism, amenorrhoea, and voice change. Evaluation for androgen excess has to be done in addition to imaging. Although steroid cell tumours are generally benign they have a malignant potential. Surgery is the mainstay of treatment.

Case: A 23-year-old unmarried female presented with hoarseness of voice, abnormal hair growth and oligomenorrhoea of one-year duration. She has been treated for polycystic ovarian disease for four months prior to this presentation with no response. Among her blood investigations, testosterone was significantly high (24.8 nmol/ml). Ultrasonography and CT abdomen revealed a solid strong enhancing left adnexal mass of 4.3x3.7x3.4 cm. Left salpingo-oophorectomy was done. Histopathology showed a steroid cell tumour of ovary. Follow up with clinical assessment, imaging and testosterone levels pointed to a good clinical response.

Conclusion: Virilizing tumours are not only a medical problem, but also a social problem for any woman. In this case surgery resulted in a dramatic response. Hence early diagnosis and prompt treatment is important in these patients.

EP06

A case report of conservative management of placenta accrete

Bodhinarayana TN, De Silva BGN, Karunarathne SMG.

Sri Jayewardanepura general hospital, Nugegoda.

viable infant can be delivered. Diagnosis and management can pose some difficulties especially in low-resource centres. It is usually missed during prenatal assessment. High index of suspicion is vital in making a diagnosis in such situations. A case of 36 weeks' abdominal pregnancy that resulted in a live healthy baby at

Comilla Medical College Hospital of Bangladesh is reported here which was diagnosed clinically and ultrasonographically and finally confirmed by laparotomy. On laparotomy, a 1.4kg growth restricted baby was delivered from the abdominal cavity. Placenta was found attached to the intestines and omentum. It was decided to leave the placenta in-situ undisturbed. The baby did not have any abnormalities. Postoperative period was uneventful. Fourteen days after laparotomy she and the baby were with advice on follow-up visits. A patient with an abdominal pregnancy requires a correct diagnosis and sound management to achieve a favourable maternal and neonatal outcome.

EP05

A Case Report: Steroid cell tumor of ovary - A rare cause of female virilization

Rani Anju Kumari RA,

General Hospital, Sanjay Gandhi Postgraduate institute of Medical sciences, Lucknow, India.

Introduction: Caesarean section rates are increasing globally. One major problem of it is morbidly adherent placenta in subsequent pregnancies. Early identification of particular patients at antenatal period allows conservative treatment methods.

Case description: A 35-year-old woman G3P2C1 with a history of past two caesarean sections was admitted at 37 weeks of gestation for delivery. Ultrasonography at 20 weeks showed anterior low lying placenta and subsequent scans at 28, 32 and 36 weeks showed anterior low lying placenta covering the internal os with minimal myometrial tissue between uterine and bladder interface. Placenta accreta was strongly suspected with increased vascularity on colour-doppler. Live baby was delivered with upper segment caesarean section. There were features of placenta increta. Following section, the placenta did not separate spontaneously and was kept in-utero. She was closely observed at ward for any signs of bleeding and discharged on the seventh post-operative day. On post-partum day 47 she got admitted with one-day history of vaginal bleeding and scan findings were suggestive of partial separation of placenta. Urgent ultrasound guided evacuation of retained products of conception (ERPC) was done. She was discharged from the ward 4 days after the surgery.

Discussion: Classical caesarean section and keeping the placenta in-utero in case of placenta accrete is a good treatment option as it preserves the uterus and has less chance of catastrophic bleeding during surgery. But the risk of infection is the major drawback.

EP08

A case report of Peripartum cardiomyopathy masked by the presence of bronchial asthma

Gunathilaka SNMPK, Lanerolle S Jayalath, JAVS Siriwardena DS, Weerakoon WAB, Kodithuwakku KASUA.

Obstetrics & Gynaecology Unit, Castle Street Hospital for Women, Colombo 08, Sri Lanka.

Background: Peripartum cardiomyopathy manifests between the last month of pregnancy and the first five months of postpartum period. It usually presents with breathlessness and signs of heart failure which may mimic several conditions in pregnancy. We present a case of Peripartum cardiomyopathy in a pregnant woman with bronchial asthma.

Case: A 29-year-old woman with bronchial asthma since childhood, on inhalers, presented at 36 weeks of gestation in her fourth pregnancy with shortness of breath. There were several exacerbations of bronchial asthma during this pregnancy with three hospital admissions. On admission she had difficulty in breathing which had worsened over a week. There was productive cough with white sputum. Her daily routines were restricted. She was afebrile and dyspnoeic with a respiratory rate of 40/min. There were crepitations over both lungs with reduced air entry. Pulse was 120/min and BP was 120/80mmHg. She was treated with bronchodilators and intravenous steroids and antibiotics, but the improvement was minimal. Hence, a cardiology opinion was taken. Her 2D ECHO cardiogram revealed global hypokinesia with severe left ventricular dysfunction. The ejection fraction was 20-25%. She was diagnosed with Peripartum cardiomyopathy. Following day, she went into spontaneous labour and delivered with assistance in the second stage. After delivery her general condition improved with

medical management. Two weeks later her ejection fraction was improved to 30-35%.

Conclusion: Diagnosis of Peripartum Cardiomyopathy in our patient was delayed since her symptoms were attributed to exacerbation of bronchial asthma. Therefore, it is important that obstetricians should consider Peripartum Cardiomyopathy when managing dyspnoeic patients mainly in the latter part of pregnancy and early postpartum period.

EP09

Prediction of viability of early intrauterine pregnancies by using ultrasound scan parameters

Samarawickrama NGCL¹, Kariyawasam GLD²

¹Colombo South Teaching Hospital, Kalubowila, Sri Lanka.

²Castle Street Hospital for Women, Colombo, Sri Lanka.

Introduction: In pregnancies of uncertain viability serial ultrasound scans are needed for evaluation. There is no uniformity in the evaluation criteria used at present to discriminate viable from non-viable pregnancy.

Objectives: To assess the minimum cut off values of ultrasonographic parameters to predict the viability of an early intrauterine pregnancy.

Method: This prospective cohort study was carried out in Castle Street Hospital for Women and Colombo South Teaching Hospital. Women who presented in early pregnancy with pre-defined selection criteria were recruited to the study until the sample size (n=348) is fulfilled. The Sample was categorized in to three groups. The ultimate end point is to demonstrate the fetal cardiac activity. The sensitivity, specificity, false positive rate (FPR) was calculated in each group.

Results: Out of 348, 227 women were found to have viable pregnancies in subsequent scans. Presence of yolk sac, when compared to gestational sac only group, improves the outcome by increasing the number of viable pregnancies ($p < 0.05$). In the gestational sac only group when the mean sac diameter (MSD) is 16mm, the false positive rate (viable pregnancy) for miscarriage was 21.9%. At the MSD of 20 mm the FPR declined to 1.9% and above 21mm the FPR is 0%. In the gestational sac with yolk sac group FPR for miscarriage was 20.5% at MSD of 16 mm, 1.3% at 20 mm and 0% beyond 21 mm. In fetal pole without cardiac activity group FPR for miscarriage was 51.4% at crown rump length of 4mm, 17.4% at CRL of 5mm. Above the CRL of 5mm the FPR was 0% for a non-viable pregnancy.

Conclusions and Recommendations: Even though we were unable to demonstrate fetal cardiac activity at MSD above 21 mm, given the consideration of intra and inter observer variability in obtaining USS parameters it appears to be a safe option to adhere to the current cutoff of 25mm to avoid any inadvertent interventions. Above 5mm CRL there were no demonstrable fetal cardiac activity in subsequent scans suggests that fetal pole cut off of 7 mm is the margin of choice to diagnose a miscarriage.

EP10

A case report of Factor XI deficiency in Pregnancy

Herath CMB, Ekanayake SB, Padeniya AGTU, Dewasinghe RV.

Teaching Hospital, Kandy.

Background: Factor XI (Haemophilia C) deficiency is an autosomal disorder seen in both sexes. Incidence is 1 /100,000. Bleeding manifestations can vary from absence of symptoms to life-threatening bleeding due to injury. Factor XI levels do not predict the severity of bleeding. Unlike in other haemophilias spontaneous bleeding is rare but pregnancy and delivery are critical due to haemostatic challenges. Neonatal complications are rare.

Case presentation: A 24-year-old gravida two, with Bunt syndrome and factor XI deficiency, was admitted at 39+1 weeks of gestation for confinement and haematology opinion. She had several bleeding episodes during childhood and underwent splenectomy for portal vein thrombosis with massive splenomegaly. Surgery was carried out following transfusion of Fresh Frozen Plasma (FFP) and platelets. She had a past history of ectopic pregnancy managed conservatively. No history of heavy menstrual bleeding or other bleeding manifestations. No significant family history of bleeding disorders. Her antenatal period was uneventful without any bleeding episodes. Her full blood count was normal and coagulation profile revealed an isolated prolonged Activated Partial Thromboplastin Time (APTT) but Thromboelastometry (TEM) was normal. Clotting factor levels were not done. We transfused 10ml/kg of FFP. Before delivery at 40 weeks of gestation. She was delivered by emergency LSCS due to fetal distress under general anaesthesia. FFP and IV tranexamic acid 1g 8 hourly were given. A repeat APTT was normal. Incidentally her antibody screening was positive for anti c. Baby developed neonatal jaundice and was managed with IV immunoglobulin.

Conclusion: The use of regional anesthesia with factor XI deficiency increases the risk of spinalhaematoma. Vacuum extraction and rotational forceps are better avoided in the second stage. Factor XI deficiency should be considered in women with significant

haemorrhage and with isolated elevated APTT. Potential risk of thrombosis in pregnancy should be considered. The unpredictable nature of bleeding tendency needs a multidisciplinary approach between obstetrician, haematologist, anaesthetist and neonatologist to achieve a good obstetric outcome.

EP11

Mosaic Turner Syndrome with Recurrent Miscarriage: A Case Report

Kalaimaran P Kandauda C, Tharmini D, Kalaimaran P

Obstetrics and Gynaecology Professorial Unit, Teaching hospital, Peradeniya, Sri Lanka.

Background: Turner syndrome (TS) is characterized by complete or partial absence of one X chromosome (45X0). Some individuals have chromosomal change only in some of their cells and it is known as mosaicism. They present with primary or secondary amenorrhoea and infertility due to ovarian dysgenesis. Mosaics present with milder phenotypic abnormalities and they are more likely to experience normal pubertal development, regular menstrual cycles and to conceive spontaneously compared to those with classical TS. However, 5-10% of women have spontaneous menstruation and out of these 2-5% become pregnant without Assisted Reproductive Techniques (ART). Though spontaneous pregnancy is a possibility, higher risk of miscarriage and increase risk of trisomy 21 in the off spring are to be expected. Among ART, In-vitro fertilization (IVF), either donor-oocyte IVF or autologous IVF are method savailable in current practice. Since ovaries of some TS patients, mostly those with

mosaics, contain follicles at various stages and they can be used for autologous IVF. These women may benefit from ovarian cryopreservation followed by transplantation or In-vitro maturation (IVM).

Case: A 40-year-old patient, in her fifth pregnancy with past four first trimester miscarriages presented with a missed miscarriage. She had regular menstrual cycle and her family history is not significant. She did not smoke or consume alcohol. On examination, she is phenotypically female with BMI of 24. Her Physical examination was unremarkable. She was investigated for recurrent miscarriage. Her blood group is A positive and she has no ultrasonic evidence of polycystic ovaries or uterine anomaly. Day 21 progesterone, random blood sugar and thyroid function test were normal. Her anti-cardiolipin antibody IgG was negative. Karyotyping revealed mosaic Turner syndrome (45XO/46XX).

Conclusion: Spontaneous conception in TS is very rare and occurs mainly in mosaics. With the ART, women with mosaicism are able to become pregnant. ART are not freely available in developing countries and a doption and surrogacy may need to be considered.

EP012

A case report of unusual presentation of peripartum cardiomyopathy: A case of acute severe obstetric morbidity.

Herath CMB, Ekanayake SB, Padeniya AGTU, Bogahapitiya BMANB.

Teaching Hospital, Kandy.

Background: Peripartum cardiomyopathy (PPCM) is a rare obstetric emergency affecting women in the last month of pregnancy and up to the fifth month postpartum. Reported incidence ranges from 1:3000 to 1:4000 live births and a fatality rate of 20%–50%. The majority of cases of PPCM the symptoms and signs are similar to that of heart failure or rarely with thrombo- embolic complications.

Case presentation: A 32-year-old Gravida 2 Para 2 in her 10th postpartum day presented to with cardiorespiratory arrest. She was intubated and ventilated with successful resuscitation with DC shock for supraventricular tachycardia. Her husband gave a history of sudden onset severe headache, loss of consciousness with two generalized tonic-clonic seizures within an hour prior to admission. She did not have chest pain, palpitation, shortness of breath, or orthopnoea. On admission she was cyanosed. Following resuscitation, her pulse rate was 128 bpm with a blood pressure of 164/120 mmHg. Few basal crepitations were noted at lung bases. She did not have pregnancy induced hypertension, cardiac or respiratory disease. Investigations were done to exclude eclampsia. Urine albumin++. FBC, liver, renal, coagulation profiles were normal. Echocardiography revealed dilated cardiomyopathy with an ejection fraction of 20% with global left ventricular hypokinesia. No thrombus. Troponin I positive. Chest x-ray showed cardiomegaly and pulmonary oedema. Diagnosis of peripartum cardiomyopathy was made. IV antibiotics, heart failure therapy with anticoagulation were started. Lactation was suppressed. On the following day ejection fraction was 45% with a marked clinical response. But her ECG showed prolongation of QT interval. Serum calcium and magnesium were normal. Pulmonary embolism was excluded with negative d-dimers and CTPA. She developed weakness, tremors, focal fits in left upper limb and tunnel vision in the left eye on day 3 of admission. CT angiogram brain, CT venogram, MRI, EEG was normal. Na valproate and aspirin were started. Eye referral revealed normal Visual evoked potential (VEP). Her symptoms improved with physiotherapy.

Due to multiple somatic symptoms, psychiatric assessment was done to exclude possible postpartum disorders. Autoimmune connective tissue disorders were excluded with normal ESR with negative ANA, ds DNA, ANCA.

Conclusion: We need to exclude all possible neurological conditions especially in the postpartum period as the incidence of ischemic stroke during puerperium in young patients is low. This case report highlights the diagnostic dilemmas physicians face when encountering patients with unusual presentation of PPCM.

EP13

Feto-Maternal outcome of pregnancy in overt and subclinical hypothyroidism

Sharmin F, Begum F, Fatima P.

Department of Obstetrics & Gynaecology, Bangabandhu Sheikh Mujib Medical University, Dhaka.

Objective: To detect the maternal and fetal outcome of pregnancy with subclinical and overt hypothyroidism.

Method: A prospective cross sectional study was carried out in the Feto-maternal Medicine Wing of Department of Obstetrics and Gynaecology, Bangabandhu Sheikh Mujib Medical University, Dhaka. Total 75 patients with subclinical and overt hypothyroidism were included in this study. Among them 43 were pregnancy with subclinical hypothyroidism (Group I), rest 32 were overt hypothyroidism (Group II). All the patients were managed according to the standard regimen and the collected data were analysed using the chi-square and Fisher's exact test.

Results: Majority (62.8%) of sub-clinical hypothyroidism patients were 15-24 years of age group and 65.6% in overt hypothyroidism were 25-44 years. Multipara was predominant in both groups; however, 2-3 abortions were significantly ($P>0.05$) higher in overt hypothyroidism. Associated medical illness was more common among Group II Overt hypothyroid patients. Diabetes mellitus was the common association both in Group I (14%) and Group II (40.6%). Next frequent medical disease was anaemia, 37.5% in Overt and 18.6% in Subclinical hypothyroid patients. More than half (55.8%) of the Subclinical hypothyroid patients received 50µg of levothyroxine per day whereas 75% of Overt hypothyroid patients was on 150µg of levothyroxine per day, it was statistically significant. Both maternal (Postpartum haemorrhage, abortion, impending eclampsia) and fetal complications (fetal distress, IUD) were significantly higher ($P<0.05$) in Overt hypothyroid patients. Majority of the study population underwent caesarean section in both groups. Low birth weight babies were delivered 30.2% and 75% in Subclinical and Overt hypothyroidism patients respectively.

Conclusion: Hypothyroidism in pregnancy is associated with both maternal and fetal complications. Maternal complications like postpartum haemorrhage, uterine rupture, abortion and intrauterine death were observed only in patients with overt hyperthyroidism. Fetal distress and low birth weight babies were more in patients with overt hypothyroidism than subclinical hypothyroidism.

EP15

A novel use of Jadelle (Levonorgestrel) in menorrhagia in a young female with Von Willebrand disease (VWD) Type 3

Pathiraja RP¹, Fernando SSS¹, Jeewantha RD¹, Jayawardane MAMM¹.

¹Department of Obstetrics & Gynaecology, Faculty of Medical

Sciences, University of Sri Jayewardenepura, Nugegoda.

² Department of Haematology, National Hospital, Colombo, Sri Lanka.

Von Willebrand disease (VWD) is a bleeding disorder that is predominantly attributable to reduced levels of VWF activity. VWD prevalence is 1% in the population and VWD Type 3 is very rare. VWD Type 3 is inherited as autosomal recessive manner and accounts for less than 5% of all cases. Individuals with VWD type 3 can have a severe internal and joint bleeding. Type 3 and type 2 variants are extremely difficult to manage and there is no guarantee that haemostasis will be achieved even when plasma concentrations have apparently been corrected into the normal range.

We report a young female aged 10 years presented to us with heavy menstrual bleeding for three days which continued for another seven days. She was known patient with VWD Type 3. This episode was considered as a life threatening bleeding. She was treated with Intermediate purity factor VIII/ factor VIII (cryoprecipitate), activated factor VII, Blood and antifibrinolytics. Long term endometrial suppression was the key to hinder excessive bleeding during menstruation, which could be life threatening, as she would need prophylaxis during each episode. Subcutaneous use of Jadelle (levonorgestrel) was an option and there are very few reports of its use in similar situation. We have used it as a novel method to suppress excessive menstrual bleeding in this patient with Von Willebrand Disease type 3.

EP16

Assessment of fetal wellbeing in mothers presented with reduced fetal movements, an audit

Kumarasinghe, HMS, Jayalath HPI, De Silva PHP.
North Colombo Teaching Hospital, Ragama, Sri Lanka.

Study design: This retrospective audit was carried out at the North Colombo Teaching Hospital, Ragama, Sri Lanka over a period of one year from May 2016 to May 2017. The green-top guidance of the Royal College of Obstetricians and Gynaecologists (RCOG) on the management of RFM was taken as the standard guideline. Pregnant women who presented with RFM after 28 weeks were included and the necessary details were obtained from the bed head tickets. Demographic characteristics, risk assessments from the history and management plans were considered.

Results: Of the 41 women were analysed 30 (73%) were between the age of 21 to 30 years, 08 (19%) were above 31 years and the rest were below 20 years. 22(54%) were between 28 to 32

weeks, 10 (24%) were between 32+1 to 36 weeks and the rest were between 36+1 to 39 weeks. 33 (80%) were primigravidae, 6 (14%) were in the second pregnancy and two were in third pregnancy. 38 (92%) presented with first episode and the rest presented for the second time. Considering the management, all women had a risk assessment for fetal growth restriction (FGR) and still birth, initial fetal heart monitoring with auscultation or hand held doppler followed by a 20 min CTG and a detailed ultrasound scan within 24h including fetal biometry, amniotic fluid assessment and the other parameters of biophysical profile. All women were given kick count charts. Two (5%) were diagnosed to have intrauterine deaths and both had RFM for more than 24 hours.

Fetal assessment was normal in others.

Conclusions: With respect to the guideline, ultrasound scan is not needed when there are no risk factors for FGR or still birth and the perception of the RFM is resolved. However due to the availability of the facility and trained staff the provision was 100% irrespective of the above factors. Due to the non-availability of a unit protocol the necessary steps were taken to develop one. Though every woman was monitored with the kick count chart, the supportive evidence is less. Overall the management to RFM in the unit has reached its current standards.

EP17

A Case Report of a Perineal Leiomyoma: A Common Gynaecological Tumour in A Rare Location

Gnanarathne DMST, EP Sumanathissa RPI, Perera WME.

Department of Obstetrics and Gynaecology, Teaching hospital, Kandy, Sri Lanka.

Background: Leiomyoma of the uterus is the commonest gynaecological tumour in reproductive age. Usually they are categorized pediculate, intra mural, sub mucosal, cervical, and broad ligament according to their location in relation to the uterus. Furthermore, leiomyoma can be divided as superficial and deep. Perineal leiomyoma is considered to be superficial soft tissue tumours and external genital soft tissue leiomyomas are extremely rare.

Case history: A 34-year-old nulliparous woman presented with a lump at perineum of three months' duration with mild discomfort. She had undergone an uneventful myomectomy five months back. Examination revealed a bulge at the perineum which was situated in the left labium majus. Vaginal examination revealed a firm well-demarcated mass with irregular surfaces in the left lateral wall with a normal uterus and adnexae. Ultrasound scan showed a well-circumscribed hypo echogenic mass. Excision under general anaesthesia was done and multiple fibroids were removed from left ischio-rectal fossa and the largest was 7cmx5cm. Histology confirmed them to be leiomyomas and follow up at one year did not show any recurrence.

Conclusion: Leiomyoma is a benign smooth muscle tumour which can arise from any site of the human body. This is a very rare case of perineal leiomyoma excised without any residual effect. It is recommended to have a pre operative MRI for mapping of the tumours and to assess the extension and which will help to design the surgery.

EP18

A case report of Neuroleptic Malignant Syndrome in Pregnancy

Herath CMB, Ekanayake SB, Padeniya AGTU.

Teaching Hospital, Kandy, Sri Lanka.

Background: Neuroleptic malignant syndrome (NMS) is uncommon, life threatening idiosyncratic reaction characterized by mental status changes, extrapyramidal symptoms, hyperpyrexia and autonomic instability. Incidence is 1-2/10,000. NMS is commonly due to antipsychotics or withdrawal of dopaminergic drugs. Yet NMS is seen infrequently as a consequence of withdrawal of anticholinergic as well as during pregnancy.

Case presentation: A 42-year-old unmarried diagnosed patient with Parkinson's disease was admitted with progressive swelling of four months' duration. She was 30 weeks pregnant with asymmetrical FGR. She sporadically established eye contact and was following simple commands. She required help with feeding, dressing and mobilisation. She was noted to have marked bradykinesia, mask-like facies, and resting tremor. She was pale with haemoglobin of 7.3 g/dl and 2 units of packed red cells were transfused. Subsequently, her Doperminergic drug dosage (Syndopa) was increased from ½ tab tds to ½ tab qds and anticholinergic dosage (benzhexol) was decreased from 2mgtds to 1mg tds. There after she developed altered mental status, lead-pipe rigidity, urinary incontinence, dysphagia and hyper salivation. She spoke occasionally in response to questions with one or two words. She became sweaty and tachycardic. And her temperature was around 104-105°F. It did not respond to tepid sponging, fanning, paracetamol, NSAIDS or antibiotics. Her WBC, liver, renal functions, serum electrolytes, CRP, UFR, Blood cultures, 2D echo, Serum Ca, and Phosphorus were normal. Serology of HIV, VDRL, and Hepatitis were negative. IV Merapenam 1g 8 hourly was started. Subcutaneous enoxaparin prophylaxis was started due to immobility. CPK was 995.7U/L and diagnosis of neuroleptic malignant syndrome as a consequence of benzhexol withdrawal was made. Aggressive fluid resuscitation was done to prevent acute renal failure and enhance excretion of muscle break down products. Benzhexol was titrated and resulted in prompt improvement within three days with normalization of CPK. At 37 weeks of gestation she was delivered of a healthy boy of 2.25 kilograms.

Conclusion: Neuroleptic malignant syndrome has high morbidity and mortality. Complications of NMS include acute renal and respiratory failure. Effect of hyperthermia on fetus can cause structural and functional defects especially in CNS. Although the diagnosis of NMS is challenging, if suspected, it can be treated successfully to save both lives during pregnancy.

EP19

Abnormal Uterine Bleeding in a woman with previous two caesarean scars and an isthmocoele

Bandara S, Karunaratna M, De Silva G, Jayantha N.
General Hospital Sri Jayewardenepura, Kotte, Sri Lanka.

Background: Isthmocoele or Caesarean Scar Defect (CSD) is a result of uterine scar dehiscence. It may cause Abnormal Uterine Bleeding (AUB), infertility or pain.

Case: A 36-Year-old woman, with previous two caesarean sections, presented with heavy menstrual bleeding for two months' duration. Pelvic examination revealed a healthy cervix with normal sized uterus. Trans-vaginal scan showed triangular defect in anterior wall of the uterus towards lower segment. Pregnancy was excluded. Since patient did not respond to the medical management, diagnostic hysteroscopy was planned. There were adhesions over the previous caesarean scar extending from anterior wall to the posterior wall with a bulging noted more towards the right end of the scar. There were no endometrial polyps, no evidence of infection or Sub mucosal fibroids. Diagnosis was made as isthmocoele.

Conclusion: Prompt identification and appropriate

management of CSD are relevant for symptom alleviation, improvement in quality of life, and successful pregnancy. Diagnosis is made with transvaginal scan, saline infused sonogram, hysterosalpingogram, hysteroscopy and MRI. In isthmocoele, collection of secretions and blood in the defect is expelled in the post-mensuration period. Poorly co-ordinated myometrial contraction causes heavy menstrual bleeding. Management of the isthmocoele depends on symptoms and fertility wishes. Treatment includes anti-fibrinolytics, hormonal therapy, hysteroscopic resection, transvaginal repair and hysterectomy. With the increasing number of caesarean sections these conditions are expected to increase and availability of hysteroscopy and expertise needs to be increased.

EP21

Use of levonorgestrel intrauterine system (LNG-IUS) for abnormal uterine bleeding in a tertiary care hospital, Sri Lanka

Herath CMB, Jeewantha RD, Rubasinghe AJ, Weerasinghe AM, Jayawardane MAMM, Silva KCDP, Pathiraja RP.

Department of Obstetrics & Gynaecology, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka.

Introduction: Abnormal uterine bleeding is a common gynaecological problem affecting 10-30% of women. It adversely affects the quality of a woman's life. The LNG-IUS satisfaction rates are comparable to hysterectomy and reduction in monthly menstrual blood loss is over 90%. LNG-IUS has been found as a good alternative to hysterectomy in women with perimenopausal AUB.

Method: A descriptive study conducted at the Professorial Unit, Colombo South Teaching Hospital, Kalubowila to find out indications, success rate, complications and patient satisfaction. Data was obtained from the direct interview of women who underwent insertion of LNG-IUS from May 2016 to May 2017.

Results: Mean age was 42 years in 32 patients with abnormal uterine bleeding who had undergone LNG-IUS insertion. 75% (24/32) of patients underwent endometrial assessment prior to insertion. Majority of patients (25/32) were with ultrasonic findings of adenomyosis. All the patients were satisfied with information they received about LNG-IUS. Insertion was done under general anaesthesia in 37.5% (12/32) of patients while rest of them were inserted without anaesthesia. 9% (3/32) of patients were anaemic and needed transfusion before insertion. Reduction of menstrual bleeding occurs in 81% (26/32) after 2-3 months while 12.5% (4/32) needed hysterectomy due to failure of treatment. 75% (24/32) were satisfied with the treatment. Spontaneous expulsion occurred in 6.25% (4/32). Of them three underwent hysterectomy due to expulsion and the other was managed medically. Progesterone side effects such as breast tenderness, headache was seen in 25% (8/32) but it did not lead to discontinuation of therapy.

Conclusion: A higher success rate and patient satisfaction indicate that LNG-IUS is highly effective treatment for AUB in local setting. Therefore, we recommend LNG IUS as an alternative to hysterectomy for benign gynaecological conditions.

EP23

Intimate partner violence before and during pregnancy among women attending antenatal clinic at Maha Oya Base hospital: A descriptive study.

Sivachandran S¹, Pushpakanthan EJ², De Silva R¹, De Alwis HDM³.

¹National cancer Institute, Maharagama.

²Base Hospital, MahaOya.

³De Soysa Hospital for Women, Colombo, Sri Lanka.

Background: Intimate partner violence (IPV) is “physical, sexual, or psychological harm by a current or former partner or spouse”. Intimate partner violence before and during pregnancy is an under studied problem among Sri Lankan population which can be associated with a broad range of adverse health outcomes. Describing the extent and the evolution of IPV is a crucial step in developing interventions to reduce the health impact of IPV. The objectives were to study the prevalence of IPV and to provide insight in to the evolution of IPV 12 months before and during pregnancy.

Methods: A descriptive study was conducted among women who attended antenatal clinic at Maha Oya Base Hospital from January to April 2017. All the consenting pregnant women who attended the clinic were included in the study. An interviewer-administered questionnaire was used for the data collection.

Results: A total of 320 women were studied. IPV was reported by 10 % (32) during the pregnancy and 16.2% (52) reported that they experienced IPV during 12 months prior to the pregnancy. Psychological abuse was the leading form of IPV followed by physical and sexual violence in the frequencies of 14%(45), 6.1%(19), 1.2%(4) respectively prior to pregnancy. Although incidence of physical violence (3.9%) and sexual violence (0.9%) were low during the pregnancy, the psychological abuse (19.1%) was increased. Unfortunately, 7%(59) of victims were unaware that they are victims of IPV and accept it as a social norm. Major risk factors associated with IPV were alcohol consumption by partner, which is associated with 19%(16) of cases. Other risk factors were being separated, divorced, and single or having a low level of education in the frequencies of 9.5%(8), 3.5%(3), 2.9% (2), 1.1%(1) respectively.

Conclusion: There area significant number of women who are subjected to IPV during and before pregnancy. Alcohol consumption of male partners plays a major role in IPV. Significant number of these women in this population accepts IPV as a social norm.

EP24

A case series of V-Y flap for vulval reconstruction

Kannangara S¹, Sivachandran S¹, Pushpakanthan EJ².

¹Apeksha Hospital, Maharagama, Sri Lanka.

²Base Hospital, Maha Oya, Sri Lanka.

Background: Although less radical surgical approaches have revolutionised the management of vulval malignancies, there is a significant number of patients developing severe morbidity due to surgical site complications. Poor wound healing and wound breakdown are recognised complications of vulval surgery which may lead to several functional, sexual and psychological morbidities. Various reconstructive surgical techniques were described to overcome this, V-Y flap technique is a well-known technique with less complications.

Objective: We report two cases of V-Y flap reconstruction done at National Cancer Hospital Maharagama.

Cases: A 53-year-old patient presented with Paget disease of the vulva and another 58-year-old patient presented with

e-Poster Presentations
stageII squamous vulval carcinoma. Both patients underwent wide local excision with extensive tissue dissection. Primary closure was impossible without flap reconstruction. V-Y flap reconstruction was performed in both cases. Both patient recovered without post-operative complications such as wound infection, wound breakdown or poor wound healing. Both patients were satisfied with the anatomical recovery and they had not developed any functional or sexual dysfunction.

Discussion: When there is a need for flap reconstruction local flaps are considered the first choice owing to their similarity in tissue characteristics to the resected area. The V-Y flap is one of the well-known techniques among numerous options. The V-Y technique is reliable, ensures better healing, and provides almost normal functional outcome.

EP25

A case report – Rare case of androgen secreting steroid cell tumour of the ovary presenting with subfertility

Jayalath JAVS¹, Lanerolle S¹, Gunathilake SNMPK, Siriwardhane DS.

Castle street hospital for women, Colombo, Sri Lanka.

Introduction: Androgen secreting steroid cell tumour of the ovary is accounted for less than 0.1% of all ovarian tumours and they can be presented at any age of the life. According to available data 94% of steroid secreting cells are unilateral, where as 29% of tumours are malignant. These patients may present with virilising symptoms, amenorrhoea and rarely with subfertility.

Case presentation: Twenty-eight-year-old nulliparous woman presented with a three-year history of primary Subfertility. She had irregular menstrual cycles for four years and had eight months of amenorrhoea at the time of presentation. Her body mass index was 38 kg/m². General examination revealed male type hair distribution over chin, anterior chest and limbs. Abdominal examination was normal and gynaecological examination revealed a clitoromegaly. Ultrasound abdomen and pelvis revealed a solid right ovarian mass measuring 50mm X 50mmX 40mm. Adrenal glands appear normal and there was no ascites. No ultrasonographical evidence of metastatic disease. Other ovary appears normal and there was no polycystic appearance. All the tumour markers were normal except high serum testosterone level. The patient underwent laparotomy and right ovary showed a well capsulated firm tumour mass and since there was no malignant features and considering her age and fertility wishes, complete cystectomy was performed. Histopathological examination and immunohistochemistry confirmed the diagnosis of androgen secreting steroid cell tumour. Three months after surgery she has resumed menstrual bleeding and her serum testosterone level was normal.

Conclusion: Commonly virilising features with amenorrhoea in an obese woman is due to polycystic ovarian disease. Other rare pathologies including androgen secreting steroid cell tumours of the ovary and adrenal tumours should be considered in the differential diagnosis. Meticulous clinical examination and investigations including imaging, tumour markers, histopathology and immunohistochemistry are important in correct diagnosis and proper management.

EP26

A Case Report of Behcet's Disease Complicating Pregnancy

Gnanarathna DMST¹, Perera WME², Sumanathissa RPJ².

¹District Base Hospital, Dickoya.

²Castle Street Hospital, Colombo, Sri Lanka.

Background: Behcet's disease (BD) is an inflammatory disorder of unknown etiology that affects mainly young adults. It involves the oral and genital mucosae as well as the eyes, joints and central nervous system. Moreover, there may be venous and/or arterial involvement during the course of BD, which has been associated with significantly increased morbidity. Outcome of BD is differing and flares during pregnancy were observed in some studies, including an increase in the number of mucosal lesions. Severe neurologic or vascular involvements have also been reported and, leading investigators to raise the question of whether the outcome of the pregnancy can be affected by BD.

Case history: This 33-year-old woman in her second pregnancy with a previous miscarriage presented at 35 weeks of gestation with watery vaginal discharge and later confirmed as preterm pre labour rupture of membranes. She is a diagnosed patient with BD who has defaulted treatment. She had an ulcer in her right labia involving the muco-cutaneous junction. She had this type of mucosal ulcers before and with pregnancy it had reappeared. She was delivered by caesarean section for obstetric reasons, birth weight was 2060 grams. With treatment she went in to remission and four weeks later ulcer resolved completely.

Conclusion: Treatment of BD during pregnancy is an important issue because of possible adverse effects that may also affect pregnancy outcome. Nevertheless, studies of pregnant women with BD remain sparse and consist mainly of small series or case reports. Obstetric complications mostly consist of fetal loss, other complications are caesarean delivery, hypertension, and thromboembolism; but these rates are close to those reported in the general population. Neonatal BD has been reported only in a few case reports.

EP27

A case report of a pelvic schwannoma mimicking a right adnexal mass

Gnanarathne DMST¹, Perera WME², Sumanathissa RPJ².

¹District Base Hospital, Dikoya.

²Teaching hospital, Kandy.

Background: Neurilemmomas are rare benign encapsulated nerve sheath tumours derived from the Schwann cells. They can present with Von Recklinghausen's Disease. These tumours commonly arise from the cranial nerves as acoustic neuromas but pelvic and retroperitoneal tumours are extremely rare. After extensive search of electronic databases, only a few cases of pelvic schwannoma was found. Here we present another case of pelvic schwannoma because of its rarity.

Case history: Forty-one-year old woman with two children presented with chronic constant right-sided abdominal pain not related to menstruation. Ultrasonic examination of pelvis showed right adnexal mass suggestive of a broad ligament fibroid. Explorative laparotomy revealed normal uterus with ovaries and a well demarcated right retroperitoneal mass of 70mm x 50mm in between external and internal iliac vessels. Total abdominal hysterectomy and en-block tumour excision was done. Histology of the tumour revealed alternating areas of compact spindle cells and hypo cellular less orderly areas confirming the diagnosis of schwannoma. The patient was asymptomatic and pelvic ultrasound scan was normal after 6

months of surgery.

Conclusion : Pelvic schwannomas are very rare and diagnosis is done by histology. Preoperative MRI scan would be more useful for preoperative assessment and mapping of the tumour.

Laparoscopic resection would be more appropriate as we deal in a limited space.

EP28

The incidence of Low Birth Weight in hill country of Sri Lanka.

Suthakaran V, Wijepala WAMJP, Wickramasinghe PA.

District General Hospital, Nuwara Eliya, Sri Lanka.

Objective: High altitude acts independently from other factors to reduce birth weight. Studies have confirmed the growth retarding effects of residence at high altitude. Nuwara Eliya district in the central province of Sri Lanka is situated 1868 m (6128 ft) above sea level with a subtropical climate. This study was designed to calculate the incidence of Low Birth Weight (LBW) in Nuwara Eliya district (hill country of Sri Lanka).

Method: The incidence of LBW in a population is defined as the percentage of live births with a weight less than 2 500 g out of the total live births during a given time period. A retrospective analysis was done using birth registry of Nuwara Eliya district general hospital. All delivery details in this hospital from January 2017 to April 2017 were collected. Vast majority of pregnant women in this district give birth in this hospital.

Results: There were 1675 deliveries during this period including 14 twin deliveries. Three hundred and thirty-five babies were LBW out of 1661 live births. The incidence of LBW is 20.2%, which is higher than national level (17%) ($p < 0.01$). The incidence of LBW is 19% ($n=315$) in singleton pregnancy and 74 % ($n=20$) among twin pregnancy. The incidence of LBW in singleton term pregnancy is 16.5 % ($n=254$). There were 48% male fetus and 52% female fetus with LBW ($p > 0.05$).

Conclusion: The incidence of LBW in hill country of Sri Lanka is 20.2% which is more than national level.

EP29

A Case Report—A Rare Case of Dermatomyositis as a Paraneoplastic Manifestation of Ovarian Malignancy

Jayalath JAVS, Gunasinghe ADHN, Athulathmudali SR, Ruwanpura LP, Chinthana HDK.

Apeksha Hospital, National Cancer Institute, Maharagama, Sri Lanka.

Introduction: Dermatomyositis is a rare paraneoplastic manifestation of ovarian malignancy with the incidence of less than 1 per 100,000. Pathological basis of the disease involved idiopathic inflammatory process of the skin and muscles. Cutaneous manifestations include classical skin eruptions in photo exposed areas and muscular manifestations include proximal muscle weakness. The diagnosis of paraneoplastic neurological manifestations associated with ovarian malignancies includes presence of classical symptoms and the detection of well-characterized onco-neural antibodies (e.g. Anti-Yo).

Case report: A 49-year-old woman presented with proximal muscle weakness with stiffness of all four limbs and a pruritic rash over exposed areas. On physical examination there was an erythematous maculopapular heliotropic rash over sunexposed areas. She was investigated and clinically suspected to have dermatomyositis and confirmed by skin biopsy. Serum Creatine Kinase level was elevated (3165 IU/L) and CT brain and spinal cord was normal. Both ultrasound scan and CT scan of abdomen and pelvis revealed 5.5cm X4.0cm size mass in right ovary suggestive of right ovarian malignancy. Serum CA 125(339.9 U/ml) and serum LDH levels (1141 IU/L) were elevated. Patient was subjected to exploratory laparotomy and found to have stage 111 ovarian malignancy and referred to oncologist for adjuvant chemotherapy.

Discussion: The clinical manifestation of ovarian malignancy can be preceded by paraneoplastic manifestations. Screening for underlying associated malignancies involving breast, ovary and lung is important in the management. The detection of onco-neural antibodies in suspected patients with ovarian malignancy is highly suggestive, especially in the absence of ultrasound and CT evidence. Surgery and immune-modulatory treatment are considered the most important management modalities in paraneoplastic manifestations associated with ovarian malignancy.

EP30

A Case Report of Prenatal Diagnosis of Type 1 Congenital Pulmonary Airway Malformation

Sumanathissa RPJ¹, Hemapriya S¹, Kodithuwakku KASAU², Dias T³.

¹Teaching hospital, Kandy.

²Castle Street Hospital for Women, Colombo.

³Colombo North Teaching Hospital, Ragama, Sri Lanka.

Background: Congenital pulmonary airway malformation (CPAM), formerly known as congenital cystic adenomatoid malformation occurs due to an entire lobe of lung is replaced by non-working cystic piece of abnormal lung tissue which will never function as normal lung tissue. The underlying cause for the CPAM is unknown. It is a rare condition with a prevalence of 1 in every 30,000 pregnancies. CPAM type 1 is the most common characterized by large cysts. Identifying characteristics on the sonogram include: an echogenic (bright) mass appearing in the chest of the fetus, displacement of the heart from its normal position, a flat or everted diaphragm and the absence of visible lung tissue.

Case: A 24-year-old primigravida at 28 weeks of period of gestation (POG) was found to have a singleton live fetus with cystic lesions over the lung field where primary suspicion was made as cystic lung lesion or diaphragmatic hernia. She was referred for detailed anomaly scan and CPAM was diagnosed. She offered an elective caesarean section at 37 weeks following necessary arrangements with neonatal ICU care, and referrals to paediatric surgical team. Few hours after delivery neonate developed grunting and became tachypnoeic and oxygen given by head-box. Post-natal chest Xray and USS suspected pulmonary airway malformation and CT thorax done on day 07 confirmed the diagnosis of type 1 CPAM. Baby underwent right lower lobectomy and managed post operatively at PICU on ventilator with broad spectrum antibiotics. Baby recovered gradually and repeat chest X-ray done on day 27 revealed right apical small consolidation with positive air bronchogram and discharged on post-operative day 31.

Conclusion: As a developing country with limited resources,

prenatal detection and early preparation for the post-delivery requirements is mandatory to combat the issues in these rare anomalies.

EP31

Prospective cohort study to compare the perinatal maternal and fetal outcomes of isolated oligohydramnios with normal pregnancies at term.

Musthaq ACM¹, Kodithuwakku KASUA¹, Raguraman S², Shireen MRF³, Abeykoon W⁴

¹Castle street Hospital for Women, Colombo.

²De Soysa Hospital for Women, Colombo.

³Teaching Hospital, Karapitiya.

⁴Teaching Hospital, Kandy.

Background: Pregnancies with oligohydramnios at term in the absence of fetal and maternal compromise pose a dilemma in management. Evidence regarding the outcome of these pregnancies is controversial and it is one of the common reasons for early induction of labour due to the fear of adverse perinatal outcome. Outcomes of such pregnancies are not adequately studied in Sri Lanka.

Objective: To compare the perinatal fetal outcomes of isolated oligohydramnios with normal pregnancy at term among women who are admitted to teaching hospital Kandy.

Methods: A case control study was carried out. All the pregnant mothers admitted to ward 7; teaching hospital Kandy at term was routinely scanned for fetal growth and amniotic fluid volume. Women with isolated oligohydramnios (n=70) without any other pregnancy related complications were selected as cases. Two age and parity matched controls (normal pregnancy n=140) were selected per case. These pregnant women were followed up from the date of admission to discharge. Immediate perinatal fetal and postnatal outcomes were assessed.

Results: Majority of the patients (58.5%) with isolated oligohydramnios were induced early, and significant number of these patients underwent emergency caesarean section ($X^2 = 12.98$, $p = 0.003$). Although the patients with isolated oligohydramnios were more likely to have CTG abnormalities, it was not statistically significant ($X^2 = 4.29$, $p = 0.12$). However, the incidence of significantly meconium stained liquor was higher than in normal pregnancies ($X^2 = 6.02$, $p=0.049$). Nevertheless, fetal outcome APGAR <7 at 5 minutes ($X^2 = 0.33$, $p = 0.95$) and short term perinatal morbidities ($X^2 = 0.29$, $p=0.59$) were shown to have no statistical difference between both groups. Neonatal special care baby unit admissions were higher in pregnancies with isolated oligohydramnios ($X^2 = 23.56$, $p=0.0001$).

Conclusion and recommendation: Compared to normal pregnancies, pregnancies with isolated oligohydramnios did not show any statistically significant difference in perinatal outcome. Oligohydramnios itself does not indicate fetal compromise when other growth parameters are normal. However, as there are controversies in management further research is needed in this field.

EP32

Surgical approach of managing tubal ectopic pregnancies, an audit

Kumarasinghe HMS, Jayalath HPI, De Silva PHP.

Objective: To audit the surgical management of tubal ectopic pregnancies and to find out the percentage of women suitable for laparoscopic approach.

Study design: A clinical audit was conducted in the North Colombo Teaching Hospital, Ragama, Sri Lanka over a period of one year from April 2016 to April 2017. The surgical management of these patients was reviewed using the bed head ticket notes and the audit standard was the Royal College of Obstetricians and Gynaecologists guideline and the unit protocol. Information on demographic characteristics, clinical presentation, initial assessment of hypovolaemia on admission, surgical management undertaken were collected.

Results: There were 54 patients who underwent surgical management during the period. Out of all 42 (78%) patients were between the ages of 20 and 30 years, 2 (3%) patients were below 20 years and the other 10 were between the ages of 31 and 40 years. There were 16 (30%) primigravidae, 28(52%) in the second, 6(11%) in the third and the remaining 4 in the fourth pregnancy respectively. The mean period of amenorrhoea was 6 weeks and 4 days. Of the total ,43(80%) had both abdominal pain and vaginal discharge, 8 (14%) had vaginal discharge, 2(4%) presented with abdominal pain and one patient had an incidental finding during early scan. During the initial assessment of hypovolaemia, 51 (94%) were in class 1 and the other 3(6%) were in class 2. All the patients underwent ultrasound assessment and 18 (33%) had the measurements of serum hCG. Laparoscopic salpingectomy was performed in 16(30%) patients and other 38 (70%) underwent laparotomy followed by salpingectomy. Converting to laparotomy from laparoscopy was not seen during the period. All laparoscopic procedures were done by the senior registrars and one by the consultant. Laparotomies were done by the registrars and the senior house officers.

Conclusions: Although the RCOG and the local protocol recommend laparoscopic approach over open method as the first choice, we were able to perform laparoscopy only in 30% of the patients. Unavailability of the laparoscopic equipment during the night, limited availability of the instruments during the day time and the limitations of trained persons were the major contributory factors that prevented using laparoscopic method in all patients. A register for ectopic pregnancies should be maintained infuture. Steps should be taken to address the current issues such as conducting training sessions and workshops on laparoscopic approach, andimproving infrastructure in order to reach the desired goal.

EP33

Thiamine supplementation for prolonged vomiting during pregnancy, an audit

Kumarasinghe HMS, Jayalath HPI, De Silva PHP

North Colombo Teaching Hospital, Ragama, Sri Lanka.

Study design: This audit was done on pregnant women admitted to Colombo North Teaching Hospital, Ragama from January2016 to January 2017. The recommendation given in the green top guidance (RCOG – Royal College of Obstetricians and Gynaecologists) was used as the audit standard. Thiamine should be given to all mothers with prolonged vomiting via oral or parenteral routes to prevent Wernicke's encephalopathy before administration of dextrose

e-Poster Presentations
or parenteral nutrition. Information was collected with respect to the demographic characteristics, use of thiamine, dose and route of administration.

Results: Of the 82 pregnant women admitted due to prolonged vomiting 48 (58%) were between 21 to 30 years. 25 (30%) were between 17to 20 years and the rest were between 40 to 44 years. Of them, 63 (77%) were in the first trimester with a mean period of amenorrhoea (POA) of 8 weeks and 3 days. Rest were in the second trimester and the mean POA was 13 weeks and 2days. 69 (84%) were primigravidae, 8 (9%) were in second pregnancy and others were in their third pregnancy. There were 2(2.4%) twin pregnancies and 12 (14%) had urinary tract infections. All patients received antiemetics and fluids intravenously. 78(95%) women received thiamine. All were given parenteral thiamine in the form of vitamin B complex.

Conclusions: According to the standard guidance, vitamin B1 should be given to all women with prolonged vomiting in pregnancy. This was almost achieved (95%) during the considered period however there were four patients who didn't receive the supplementation according to the agreed protocol. Non-availability of the drug was the major reason and continuous awareness, dissemination of guidelines and re-audit should be done in order to reach 100% provision of the intervention.

EP35

A case report of placenta percreta with gross haematuria presenting at threshold of fetal viability—a urological perspective

Dissanayake AD¹, Abeygunasekara A², Jayawardena M², Balagobi B², Ranawaka J².

¹Castle Street Hospital for Women, Colombo.

²Colombo South Teaching Hospital, Kalubowila, Sri Lanka.

Background: morbid adherence of placenta (MAP) occurs in 1 in 2500 pregnancies and the incidence is rising with the increasing trend of caesarean sections. Th placenta percreta involvement of urinary bladder is common. Gross haematuria a rare presentation of placenta percreta despite bladder invasion do occur in only 1 in 4 of such cases.

Case: a 40-year-old woman in her third pregnancy presented at a perid of gestation of 25 weeks with painless gross haematuria. She had no vaginal bleeding. She had undergone caesarean section in her first pregnancy for dystocia. Her second pregnancy was a second trimester miscarriage managed medically. Her current pregnancy had been otherwise uncomplicated.

On examination she was pale, with a tachycardia and blood pressure of 90/70mmHg. Her haemoglobin was 7.2g/dl with normal renal functions and urine output. Ultrasonography revealed placenta percreta with blood clots within the bladder with a single live fetus. She was transfused with packed red cells and fresh frozen plasma. Bladder wash out followed by bladder irrigation was done after stabilization. Due to persistent haematuria rigid cystoscopy with bladder wash was conducted with the aim of confirming diagnosis, removal of blood clots within the bladder and to evaluate possibility of prolongation of pregnancy till fetal maturity by arresting bleeding. Blood clots were noted within the bladder and clot removal was done followed by cystodiathermy. Except for a submucosal bluish tinged area in the posterior bladder wall cystoscopy was otherwise normal. Delivery was deferred as haematuria settled. However, within hours she developed recurrence of haematuria and underwent a Caesarean hysterectomy with bilateral internal iliac artery ligation. Placenta percreta with bladder involvement

was noted. Cystostomy followed by bladder repair was done. A live baby girl weighing 805g was delivered. Estimated blood loss was 2200ml. Her recovery was uneventful and catheter was left in situ for 14 days.

Conclusion: Placenta percreta presenting with gross haematuria is a rare presentation of MAP. Management requires multidisciplinary care involving urologist. Cystoscopy has limited diagnostic value and should not be routinely offered to patients. Timely decisions on interventions based on individualized assessment will be life saving.

EP36

A case report of Meningioma with uncus herniation in pregnancy

Suthakaran V¹, Perera MNI¹, Herath HMRP², Dias TD², Wijesinghe PS².

¹Colombo North Teaching Hospital, Sri Lanka.

²Faculty of Medicine, University of Kelaniya, Sri Lanka.

Introduction: The diagnosis and management of meningioma during pregnancy is a challenge, with growth and regression both reported. The occurrence of meningioma during pregnancy is rare, comparable with that in non-pregnant woman in the same age group. We report a case of meningioma with uncus herniation leading to maternal death during pregnancy.

Case: Thirty-year-old woman was referred to our unit on her 20th weeks of gestation for severe headache and vomiting. This is her third pregnancy with two living children, both delivered by caesarean section. She had early morning headache, lasting for 1 to 2 hours which resolved following vomiting from 16th week of gestation. She did not have visual impairment, photophobia or focal neurological symptoms. She was admitted to base hospital for increased frequency and severity of headache on her 18th week of gestation. Neurological examination was normal. Her blood pressure was normal throughout this pregnancy. She defaulted her neurology appointment. She was readmitted for same symptoms and transferred to our hospital. She complained severe headache, vomiting and blurred vision on day of admission followed by difficulty in breathing. Her SPO was 84 % on air and respiratory rate was 32/minutes. Ophthalmoscopy was normal. She was intubated for impending respiratory arrest and non-contrast CT was performed. CT showed Right sided sphenoidal wing tumour suggestive of a meningioma with midline shift and uncus herniation. She developed repeated episodes of a systole before transfer to neurosurgical unit and did not recover. Postmortem findings and histology confirmed the diagnosis of meningothelial type of meningioma.

Discussion: Intracranial tumours in pregnant woman are serious and life threatening conditions. The clinical presentation of intracranial mass mimics the symptoms of hyperemesis gravidarum, eclampsia and puerperal psychosis. MRI of the brain is the investigation of choice for prompt diagnosis of meningioma. Surgery is the key in the management of meningioma depend on the site of tumour. The general recommendation in pregnancy is for caesarean section as first surgery followed by neurosurgical interventions. Urgent neurosurgical interventions are indicated for patients with malignant tumours, active hydrocephalus or benign tumours with impending herniation or progressive neurological deficits.

EP37

Caesarean scar ectopic pregnancy: detection and expectant management of two cases

Gihan MC¹, Jayawardane IA², Jayasundara DMCS².

¹Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Peradeniya.

²Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo, Sri Lanka.

Background: Caesarean scar ectopic pregnancy (CSEP) is a rare type of ectopic pregnancy where the gestational sac is implanted within the myometrium on the previous uterine scar which carries high risk of bleeding, uterine rupture and hysterectomy with resultant high maternal morbidity. Incidence of CSEP is from 1:1800 to 1:2500 of all caesarean deliveries. Liberal use of transvaginal ultrasound scan in early pregnancy aids early detection. Management options and complications differ between viable pregnancy and non-viable pregnancy. Majority of these pregnancies can be managed conservatively or expectantly. Natural history is not well understood and evidence is scarce.

Cases: Here we describe two patients with non-viable CSEP who were successfully managed expectantly. First patient was a 39-year-old female, gravida 3 para 2, with a history of past vaginal delivery and a caesarean section done eight years back. During the routine booking appointment at 9 weeks of gestation transvaginal ultrasound scan revealed a gestational sac implanted within the previous caesarean scar with empty uterus and cervical canal. Mean sac diameter (MSD) and crown-rump length was 28mm and 9mm respectively with absent fetal cardiac activity. She was asymptomatic and had stable vital signs. Second patient was a 36-year-old gravida 4 para 2 with a history of two caesarean sections and one first trimester miscarriage. She presented at 9 weeks of gestation with mild vaginal bleeding. She was haemodynamically stable and transvaginal ultrasounds can have revealed an irregular gestational sac with MSD of 31 mm and a small fetal node. Myometrial thickness was 3mm between the sac and the bladder. In both cases there was no fluid in the cul-de-sac. Both patients were managed expectantly on out-patient basis. Both had dropping serum β hCG. Weekly transvaginal ultrasound scan revealed gradual disappearance of gestational sac and the pregnancy.

Conclusion: Ultrasound scan is a valuable tool in diagnosing CSEP. Expectant management is a useful management option in non-viable CSEP.

EP38

A case report of disseminated chorio carcinoma preceded by a pregnancy of unknown location

Siriwardena SMA¹, Karunasingha J².

¹Teaching hospital, Mahamodara.

²Colombo South Teaching Hospital, Sri Lanka.

Background: Choriocarcinoma is a rare form of a gestational trophoblastic tumour with rapid growth and metastatic potential. It can be preceded by; Hydatidiform mole (50%), spontaneous abortion (20%), normal term pregnancy (20-30%) and ectopic pregnancy (2%). Choriocarcinoma may appear months or even years after the last pregnancy and metastasize to lungs, brain, liver, skin, heart, and cauda equina.

Case presentation: A 30-year-old mother of one child presented with altered level of consciousness, headache and vomiting of one-day duration. She had episodic heavy vaginal bleeding for three months, left abdominal pain for one week, fever, myalgia and loss of appetite for three days. She had

undergone a negative laparotomy for suspected ectopic pregnancy with sustained β hCG values around 1500 IU one year ago. On current admission USS revealed 12.5mm thick endometrium and a thin rim of free fluid. Urine hCG was positive, Haemoglobin was 6g/dl. Differential diagnosis was ectopic pregnancy, septic abortion or trophoblastic disease. Serum β hCG was 225 000 IU ad Non contrast CT brain revealed masses in the left temporal and parietal region and right posterior frontal region with perilesional oedema. Chest X ray showed a suspected shadow. Probable diagnosis was metastasised trophoblastic disease. Patient was transferred to Cancer Institute Maharagama for further management. 2D Echo revealed fragile myxoma and suspected metastatic deposits. Trans oesophageal echo cardiogram detected cardiac thrombi of possible secondary deposits. Patient improved with initial chemotherapy regimen but resistance developed later on.

Discussion: Choriocarcinoma is very sensitive to chemotherapy. Single agent methotrexate is recommended for low-risk while combination regimens including EMACO (etoposide, methotrexate, actinomycinD, cyclophosphamide and vincristine are recommended for intermediate or high-risk disease. Surgical removal followed by chemotherapy combined with irradiation is the treatment of choice in patients with progressive neurological deterioration in whom chemotherapy alone is ineffective. Non-metastatic GTN and metastatic low-risk GTN have a cure rate close to 100% with chemotherapy. In metastatic high-risk GTN the cure rate is 75%.

EP39

Knowledge and practices among pregnant women with anaemia

Thuvathippan R, Mahendran T, Guruparan K, Muhunthan K.
Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Jaffna, Sri Lanka.

Background: Iron deficiency anaemia remains a common nutritional problem in pregnancy, even though health system of Sri Lanka has a policy of free provision of iron supplements to all pregnant women. Anaemia in pregnant women is higher (25.2%) in Jaffna district than the National levels (20%). Various factors contribute to this high incidence.

Objective: To assess knowledge and practices among pregnant women with anaemia.

Methods: This study was conducted among pregnant women, who attended the antenatal clinic Teaching Hospital, Jaffna. They were randomly selected. An interviewer administered questionnaire was used to collect the data.

Results: Ninety-four women participated in this study. 57.4% (54/94) were anaemic according to WHO definition, of them 87% had mild and 13% had moderate anaemia. 63.8% (60/94) had adequate knowledge on iron rich sources. Even though 93.6% (88/94) were aware of the supplementation, only 46.8% (44/94) knew about proper method of consumption during pregnancy. Common side effects of iron tablets were known by 43.6% (41/94). Knowledge on effects of anaemia on pregnancy was satisfactory among 68.1% (64/94). Among anaemic women 75.9% (41/54) were on double dose of iron and only 53.7% (29/54) were aware of their condition.

Conclusions: Almost all women have satisfactory knowledge on supplementation during pregnancy. Knowledge on iron rich sources and effects of anaemia on pregnancy was satisfactory. But knowledge on proper consumption and common side effects

e-Poster Presentations

of iron tablets were lacking and most of the anaemic women were unaware of their condition. Public health implication: Interactive educational programs involving all antenatal women regarding anaemia during pregnancy to deal with prevention of anaemia by improving; bio availability of iron, sources of iron, and side effects of iron tablets will help to reduce the incidence of anaemia and consequent adverse outcomes.

EP40

A case report of uterine rupture of an unscarred uterus during labour

Thanuya M¹, Ruwanpathirana SA².

¹District General Hospital, Kilinochchi.

²De Soysa hospital for women, Sri Lanka.

Introduction: Uterine rupture during labour is a serious and uncommon obstetrical complication that can lead to poor outcomes for the mother and her child if not immediately diagnosed and treated. Spontaneous uterine rupture commonly occurs during labour in parturients with a scarred uterus and is much rarer on an unscarred uterus.

Case history: A 32-year-old woman with two children, at 39 weeks of gestation was admitted to the hospital with abdominal pain of eight-hour duration. Her antenatal period had been unremarkable and past obstetrics history included two uncomplicated spontaneous vaginal deliveries. There was no history of uterine surgery, trauma or other risk factors for uterine rupture, namely diagnostic or therapeutic intrauterine interventions. On admission the patient was hemodynamically stable without abdominal tenderness, vaginal examination revealed that she was in early labour. Labour progressed well and four hours later she was fully dilated. Artificial rupture of membranes was done. After one hour, there was no further progress, it was left occipito anterior position without obstructive features. Cardiotocograph was normal. As she had moderate 2 –3 contraction/10 minutes without progression, she was started with oxytocin infusion. After 30 minutes' fetal bradycardia was noted and ventouse was not successful. During emergency caesarean section haemoperitoneum was noted and the fetus was found protruding into the abdominal cavity. A male still born fetus weighing 2950 g was delivered. Uterine rupture involving the lower segment of right side extending to the left cornu was detected and sutured. Haemostasis was achieved. The patient received blood transfusion and the postoperative recovery was uneventful.

Conclusion: In our patient the use of oxytocin and assisted delivery, though indicated, probably contributed to the rupture of the uterus. Obstetrician needs to be ever watchful for the symptoms and signs of uterine rupture as treatment needs to be swift and aggressive. With prompt diagnosis and treatment, the complications from uterine rupture can be minimized.

EP41

The Correlation between the received analgesia and patient satisfaction during current labour and analgesics preference in next labour

Perera SLADCB, Salinda S, Perera PLDM, Banagala CSM, Abeykoon W.

Teaching Hospital, Kandy.

Objectives: To study, firstly the relationship between the received analgesia for this labour and patient satisfaction, and secondly the individual patient preferred analgesic plan for the

next delivery according to the experience from this labour.

Methodology: This is a retrospective single centre study, conducted in labour ward 07, Teaching Hospital Kandy, for a period of 10 days. A non probability sample of women above 18 years who underwent normal vaginal delivery were studied. A pretested labour satisfaction questionnaire was filled by two interviewers. The received analgesia with dose and time was recorded from BHT. The questionnaire detailed about the maximum pain perception during labour according to visual analogue scale. The patient satisfaction was categorized to three levels. The preference for next delivery was asked from three given options. The questions on prior knowledge regarding labour analgesia were also included.

Results: Of the 61 subjects recruited to the study nine were excluded because they underwent caesarean section due to obstetric indications. Out of 53, eight patients received the option of epidural analgesia and seven consented. 31 have received at least one dose of pethidine. There were 23 who did not receive any form of analgesia. All the subjects who underwent epidural were highly satisfied with labour. Total of 32 (60%) patients generally satisfied with the labour, in which 15 have not received any analgesia and 17 have received pethidine. 14 (26%) felt unsatisfied about pain management, which included eight who did not have any pain relief and six who had only pethidine. The seven women who had epidural analgesia this time and another 15 subjects (all together 40%) were happy to have epidural analgesia for the next labour. Another 17 subjects were keen to have only pethidine and nine women refused to have any form of analgesia in next labour while six were uncertain about the analgesic plan for next labour. Interestingly there were 16% of mothers who knew nothing about the existence of pain relief in labour.

Conclusion: There is a high correlation between the patient satisfaction of pain relief in current pregnancy and the decision for analgesic plan for next pregnancy.

EP42

A case report of fetal Thanatophoric Dysplasia

Fahim SM, Kaluarachchi A, Gihan MC, Gankanda WI, Thuvaratheepan R.

De Soysa Hospital for Women, Colombo, Sri Lanka.

Thanatophoric dysplasia (TD) is a rare autosomal dominant lethal skeletal dysplasia with an incidence of 1 per 20,000 to 1 per 50,000. There are Type I and Type II subtypes with relative incidence of 80% and 20% respectively. Autosomal dominant Mutations in the fibroblast growth factor receptor 3 gene (FGFR3), which has been mapped to chromosome band 4p16.3, results in both subtypes. In prenatal diagnosis of TD by three-dimensional ultrasound examination in second trimester aids in visualizing facial features and other soft tissue findings such as cloverleaf skull, veryshort extremities and small thorax. Most of the affected fetuses die in utero or shortly after birth due to either respiratory insufficiency or brain stem compression or combination of both. We report one such rare case of type I TD encountered at 32 weeks of gestational age.

Case: 28-year-old woman in her 1st pregnancy with an uncomplicated preconception and antenatal period found to be carrying a fetus with thanatophoric skeletal dysplasia by anomaly scan at 22 weeks of gestation with features of macrocephaly, narrow chest, deformed shorten limbs, scoliosis and polyhydramnios. Both parents were counselled and decided to continue the pregnancy. At 32 weeks of gestation she was

e-Poster Presentations

admitted to the hospital with preterm labour and assisted breech vaginal delivery was performed. Baby boy weighed 1.75kg developed peripheral cyanosis and respiratory distress immediately after delivery, admitted to neonatal intensive care unit and expired on the same day due to respiratory failure. Baby had macrocephaly with head circumference of 320mm (above 90th centile). Both fontanelle were widely open and sutures were separated. The head and neck features were prominent forehead, mid facial hypoplasia, depressed nasal bridge, low set ears and short neck. Upper and lower limbs were short with short stubby fingers and deep skin folds. Narrow thorax, protuberant abdomen and scoliotic spine were also seen. Full body x-ray revealed narrow chest with small ribs and short long bones with the shape of telephone receiver. Facial features, skeletal abnormalities and postmortem findings confirmed the diagnosis of thanatophoric dysplasia type I. No placental abnormalities detected. Both parents were debriefed and counselled. Parental genetic screening is not useful as almost all cases of TD are caused by new mutation in the FGFR3 gene and occur in people with no positive family history. As affected individuals never survive, disorder never passes to next generation and recurrence risk is also not increased.

EP43

A case report of a placental chorio angioma associated with death in utero.

Gunasingha ADHN, Sandaruwan NKTS, Attanayake MMKN, Perera YAG.

Castle Street Hospital for Women, Colombo 08, Sri Lanka.

Background: Placental chorioangioma is a benign vascular tumour of placenta arising from chorionic tissue with an incidence of 0.6%. It has no malignant potential. They are more common in multiple pregnancies and in female fetuses and associated with increased maternal age, diabetes mellitus and hypertension. Most chorioangiomas are asymptomatic, though it has potentially serious maternal and fetal complications when they reach more than 5cm in diameter necessitating regular surveillance during pregnancy.

Case: A 34-year-old woman at 20 weeks of gestation with a previous caesarean section was found to have large anterior low placenta with cystic spaces and hydropic degeneration and a normal viable fetus. Partial mole occurring with anormal fetus was initial assumption though subsequent scans only showed a large placental mass with a normally growing fetus without anomalies. She was diagnosed with gestational diabetes at 28 weeks and was on nutrition therapy with good glycaemic control. She was admitted at 36 weeks with an intrauterine death. Macerated female fetus was delivered and large placenta measuring 14x10x5cm with abnormal morphology was noted. Histopathology of the placenta revealed a multifocal chorioangioma with no evidence of malignancy.

Conclusion: Large placental chorioangiomas probably act as arterio-venous shunts and cause complications on some occasions despite many unaffected pregnancies. Fetal congestive heart failure results due to the increased blood flow through the low resistant chorioangioma vasculature which behave as a shunt. Non immune hydrops, haemolytic anaemia, thrombocytopenia, cardiomegaly, growth restriction, brain infarction, umbilical vein thrombosis, cerebral embolism and sudden fetal death are among other fetal complications. Maternal complications are pre-eclampsia, preterm labour, placental abruption, and polyhydramnios. Doppler ultrasound is the mainstay in diagnosing placental chorioangioma. Intra placental sub chorionic mass with complex echogenicity protruding into

the amniotic cavity near umbilical cord insertion is suggestive. Differential diagnosis includes placental teratoma and degenerated myoma. Fetoscopic interstitial laser therapy, endoscopic devascularization, alcohol chemosclerosis and serial fetal transfusion are possible treatment options. Early prenatal diagnosis, regular monitoring by serial Doppler ultrasound, surveillance to pick up complications early and timely interventions lessen the fetal and maternal complications of placental chorioangioma.

EP44

A case report of Ogilvie syndrome following caesarean section

Kalaimaran P¹, Kandauda C¹, Rajeevan J².

¹Teaching Hospital, Peradeniya.

²Teaching Hospital, Jaffna, Sri Lanka.

Background: Ogilvie syndrome (OS) is a rare acquired disorder due to imbalance in autonomic innervation and characterized by acute obstruction of large bowel without mechanical cause. Ischaemia and caecal perforation are expected complications which occur due to the delay in diagnosis and causes significant morbidity and mortality. OS usually occurs in hospitalized patients and associated with non-operative trauma, infections and heart disease. Caesarean section and hip surgery are the most common associated surgical procedures. Pathophysiology in obstetrics cases can be explained by reduced levels of serum oestrogen following child birth causing decreased parasympathetic tone and damage to sacral parasympathetic nerves that supply colon during caesarean section.

Obstructive symptoms characteristically abdominal distension over a short period of time usually appears between 2-12 days of post-caesarean section with. Localized tenderness over RIF indicates impending rupture of caecum. Diagnosis is made from plain abdominal X-ray that shows significant dilatation of the colon and evidence of bowel perforation. Management of OS depends on caecal diameter. If it is under 10-12cm, it is managed conservatively with intravenous fluids, electrolyte replacement and NG tube decompression with or without IV neostigmine. Decompression with flatus tube is recommended if caecal diameter is more than 10-12 cm. laparotomy and bowel resection are usually needed for complicated cases.

Case: A 34-year-old, mother at POA of 38 weeks underwent Elective repeat caesarean section. She was well on post-operative day 1 and started on oral fluids. Nextday, she complained of mild abdominal distension with pain without vomiting and did not open bowels. Following day, abdominal distension was significant with vomiting. She was haemodynamically stable and had generalized abdominal tenderness with absence bowel sounds. USS abdomen, supine abdomen and erect chest X-ray showed dilated bowel loops without free fluid or pneumoperitoneum. Patient was managed with IV fluids, nasogastric decompression, and prophylactic antibiotics.

Conclusion: Ogilvie syndrome is a rare complication of caesarean section. In the post-partum period, if a patient complains of significant abdominal distension over a short period of time, OS should be suspected. Plain abdominal x-ray is diagnostic. Regular examination is recommended to assess the response to treatment and to determine whether surgical intervention is needed.

EP45

A case report of a successful pregnancy in a woman with Wilson's disease on Zinc sulphate

Gunathilaka SNMPK, Lanerolle S, Jayalath JAVS, Siriwardena DS, Kodithuwakku KASUA, Weerakoon WAB.

Obstetrics & Gynaecology Unit, Castle Street Hospital for Women, Colombo 08.

Background: Wilson's disease is an autosomal recessive, rare disorder of copper metabolism. Untreated disease usually causes subfertility and in cases where pregnancy does occur of ten results in miscarriages. However, medications such as Zinc salts and Penicillamine have resulted in successful pregnancy outcomes.

We report a case of successful pregnancy in a woman with Wilson's disease on Zinc sulphate.

Case: A 19-year-old woman with Wilson's disease, which was diagnosed a year ago following the death of her twin sister due to acute liver failure following Wilson's disease presented in her first pregnancy. Initially, her Serum Ceruloplasmin was 27 µmol/L and 24-hour urinary Cu was 2.28 µmol. AST and ALT were 47 U/L and 54U/L respectively. Penicillamine was started at the beginning and later converted to Zinc acetate 50mgtds, 06 months prior to her presentation to us.

At 17 + 1 weeks of gestation, OGTT and liver profile were normal. She was followed up in both antenatal and GI clinics. Her ECHO cardiogram was normal and USS revealed multiple hypochoic nodules in liver compatible with changes of Wilson's disease, without portal hypertension. Anomaly scan of the fetus was normal. Zinc sulphate with folic acid were continued during pregnancy. There was no deterioration of her liver profile and fetal growth was normal throughout pregnancy. She underwent an elective caesarean section at 37 weeks due to breech presentation and delivered a healthy baby girl weighing 3650g.

Conclusion: Patients with Wilson's disease on regular treatment without symptoms are usually able to conceive and have successful pregnancies. Zinc sulphate is an effective therapeutic option and can be safely used in pregnancy.

EP46

Value of detecting mid cavity implantation of intrauterine pregnancy in early first trimester

Senarathne RRTN¹, Rodrigo WN¹, Senarathne RRTN¹, Samarawickrama SAH¹, Lelwala TM²

¹Fetal Medicine Clinic, Asiri Surgical Hospital, Colombo, Sri Lanka.

²Homagama Base Hospital, Sri Lanka.

Introduction: The implantation of the embryo usually occurs at the uterine fundus. The ring and the eccentric position of the 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 and low cavity implantation of gestation sac.

Methods: High risk pregnancies numbering 88 were detected from 2011 May–2017 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 ultrasound scanning and Doppler studies until final outcome.

Results: In this study group 73 have completed their pregnancy. Out of them 62 (85%) have delivered. 15% ended up in a miscarriage. Among who delivered 66% were term deliveries and 34% were preterm deliveries. From the deliveries 28% had low birth weight babies while 3% had FGR, 5% had postpartum haemorrhage and 5% ended up in neonatal death (due to PPROM). Threatened abortions were detected in 21%. Oligohydramnios was seen in 10% and 5% had antepartum haemorrhage. 24% had to undergo assisted reproductive techniques due to subfertility. GDM was detected in 5% while 3% had Hypertension. Structural uterine anomalies (bicornuate uterus) were found in 3%.

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 and sudden IUD should be anticipated and patients have to be counselled about poor prognosis.

EP47

Role of the fetal middle cerebral artery Doppler in detecting adverse perinatal outcomes at term in normal pregnancies.

Bandara HGWAAK, Senthilnathan G.

De Soysa hospital for women, Colombo 08, Sri Lanka.

Introduction: Preventing adverse perinatal outcomes is a challenge for the obstetrician and early detection and timely intervention is the way forward. Though there are methods to detect early FGR still methods are lacking to detect late FGR. Doppler evaluation is an extensively used technique to detect different pathological entities in the fetus.

Objective: To determine the value of middle cerebral artery Doppler velocimetry in uncomplicated singleton pregnancies at 40 weeks of gestation to predict adverse outcomes and formulate cut off values for each variable.

Method: This study is a prospective observational study. It was conducted at De Soysa hospital for women from 1st February 2015 to 31st May 2015 and 168 pregnant women who completed 40 weeks were enrolled in the study. Umbilical artery (UA) and middle cerebral artery (MCA) Doppler indices were measured and cerebro-placental ratio was calculated. Routine antepartum tests of fetal wellbeing were performed and delivery was carried out if any of the routine tests of fetal surveillance were abnormal or when the period of gestation reached 41 weeks. Data entering and analysis was done and outcome variables analyzed by dividing in to two groups. Comparisons were performed using student unpaired t test. Receiver operating curve was used to determine the sensitivity and specificity of the different Doppler techniques and specific cut off values.

Results: Study population included 168 subjects and 38 (22.6%) had adverse perinatal outcomes. They were compared with the rest. MCA resistance index (RI) (0.62 ± 0.08 vs. 0.64 ± 0.171), and MCA systolic diastolic (SD) ratio (3.01 ± 0.71 vs. 2.95 ± 0.65) showed no significant difference among the two groups. Although MCA pulsatility index (PI) (1.16 ± 0.16 vs. 1.25 ± 0.29 , $p=0.018$) was significantly different, the sensitivity and specificity were low. However cerebral placental ratio

(MCA PI/ UA PI) had a highly significant difference ($p < 0.001$) and a cutoff value of 1.13 had a sensitivity of 69% and specificity of 79% for predicting adverse perinatal outcome in the low risk term population.

Conclusion: MCA Doppler indices alone are poor in detecting adverse perinatal outcomes in low risk term population. However cerebral placental ratio has a good predictive value, but with low sensitivity and specificity.

EP48

A Case report of a Pregnancy with an Atypical Proliferative Serous Tumor of the Ovary

Kumarasinghe HMS, Jayalath HPI, De Silva PHP.

North Colombo Teaching Hospital, Ragama, Sri Lanka.

Background: Out of all ovarian epithelial tumours, borderline tumours account for 10-20%. Incidence is up to 8% during pregnancy. Evidence is lacking to establish a management strategy. Most of the time these adnexal masses are incidental findings during the routine antenatal scan which is the mainstay of evaluating the mass. Surgical management is the treatment of choice if there are ultrasonic features suggestive of a malignancy such as size, solid components, septations, papillary structures, irregular borders and increased vascularity. These patients carry excellent prognosis with long term survival with surgery.

Case: A 26-year-old primigravida at 28 weeks of gestation was found to have a left sided unilocular ovarian cyst 10cm x 10cm size with a solid component and few papillary structures. She was asymptomatic. A laparotomy was performed due to the suspicion of a malignancy followed by left salpingo-oophorectomy. Rest of the abdomen and the pelvis was unremarkable. Histology revealed serous borderline tumour of the left ovary. The rest of the antenatal period was uneventful and she gave birth to a healthy baby at term.

Conclusion: Borderline tumours are diagnosed during routine antenatal scans and surgical treatment should be considered during the second trimester. Patients are at risk of miscarriage, preterm birth and low birth weight. Though some show aggressive features during pregnancy, over all prognosis is excellent.

EP49

A case report of refractory immune thrombocytopenic purpura in pregnancy

Kalaimaran, P, Tharmini D, Kandauda C.

Obstetrics and Gynaecology Professorial Unit, Teaching Hospital, Peradeniya, Sri Lanka.

Background: Immune thrombocytopenic purpura (ITP) is an acquired autoimmune disorder, secondary to accelerated platelet destruction by anti-platelet antibodies or impaired thrombopoiesis. Common cause of thrombocytopenia in pregnancy is gestational thrombocytopenia (GTP). However, ITP is suspected when a woman has low platelet count in first or second trimester or prior to pregnancy. Platelet count rarely falls below $70,000/\mu\text{L}$ in GTP. Maternal complication is bleeding in any gestational age while fetus will have Neonatal Alloimmune Thrombocytopenia (NAIT). Management mainly targets on minimizing risk of bleeding through out pregnancy and treatment is not indicated if platelet count is $>20,000/\mu\text{L}$ without bleeding. Treatment includes corticosteroids, immunoglobulin (Ig) and azathioprine. Use of anti-D and rituximab have not

been adequately evaluated. Thrombopoietin mimetic drugs have been recently used to treat refractory ITP. Splenectomy can be done in second trimester. Mode of delivery is primarily based on obstetric indications. Vaginal delivery and caesarean section are safe if platelet count is $>50,000/\mu\text{L}$. The major complication for fetus or new born is intracranial haemorrhage due to severe thrombocytopenia. ITP is not a contraindication for future pregnancies and risk of miscarriage is rare as antibodies do not cross to fetus approximately until ten weeks of pregnancy.

Case: A 30-year-old primigravida, at POA of 33 weeks presented with mucosal bleeding with platelet count of $5,000/\mu\text{L}$. Low platelet count was detected from first trimester ($35,000/\mu\text{L}$). On examination, she had petechial haemorrhages. Steroids were started initially however due to inadequate response she was given i/v immunoglobulin. She had highly variable platelet counts since admission independent of any treatment. She was managed with i/v steroids, i/v immunoglobulin and platelet transfusion prior to CS. Surgery was uneventful and her post-operative Day 1 platelet count was $58,000/\mu\text{L}$ which increased to normal range before discharge. New-born's platelet count was $116,000/\mu\text{L}$ at birth which dropped to $23,000/\mu\text{L}$ on Day three and two doses of i/v Ig were given, and platelet count raised to normal level within a month. USS brain was normal.

Conclusion: ITP is a diagnosis of exclusion and it can cause spontaneous bleeding in pregnancy and intracranial haemorrhage in the new-born. Management requires multidisciplinary approach. Refractory ITP is rare surgery is reserved for failed medical management.

EP50

Presentation, Management and Complications of Ectopic Pregnancy in a Tertiary Care Institute, Sri Lanka

Bandara, S¹, Kandauda C², Wijewardana G¹, Kalaimaran P¹, Priyadarshana P².

¹Teaching Hospital, Peradeniya.

²Faculty of Medicine, University of Peradeniya, Sri Lanka.

Methodology: This is a retrospective study. Data was traced from bed head tickets in all confirmed ectopic pregnancies over a period of one year.

Results: The study included 35 women. Mean age of the population was $30.4(\pm 4.9)$ years, mean POA on admission was $51(\pm 10.9)$ days. Of them 40% were primigravidae and 37.1% presented in their second pregnancy. 3 had previous uterine and 2 had previous pelvic surgery. 54.3% presented with abdominal pain and 25.7% presented with both abdominal pain and vaginal bleeding. Except for 2 cornual and one ovarian rest (94.3%) were located in the uterine tubes. Of them 48.6% were ruptured, 31.4% were leaking. Salpingectomy via laparotomy was the treatment in 74.3%. Laparoscopic salpingectomy was done in 25.7%. Medical management with intra-muscular methotrexate was employed in 2 cases. Mean duration of hospital stay was $6(\pm 2.03)$ days, mean pre-op and post-op haemoglobin were $10.7(\pm 1.73, n=35)$ g/dl and $9.6(\pm 1.5, n=35)$ g/dl respectively. 11 women needed blood transfusions due to symptomatic anaemia. No mortality was recorded within the study period.

Conclusion: Ectopic pregnancy is a common early pregnancy complication which is associated with morbidity and mortality. Main stay of management was open surgery. Prolonged hospital stays and blood transfusions can be minimized with early

detection.

EP51

Effect of nifedipine as a tocolytic for the management of preterm labour

Nazneen S.

Comilla Medical College, Bangladesh.

Abstract: Preterm birth is a major contributor to perinatal mortality and morbidity and affects approximately six to seven percent of births in developed countries. Prevention and treatment of preterm labour are important though it is not possible when labour is too advanced. Timely use of tocolytic agents which are intended to arrest uterine contractions during preterm labour or maintain uterine quiescence is useful. Calcium channel blockers like nifedipine has fewer adverse effects for women in preterm labour and appears as a potentially effective and well tolerated form of tocolysis.

Objectives: The aim of the study was to evaluate the tocolytic efficacy of nifedipine for the management of preterm labour and to assess the effects on maternal, fetal and neonatal outcomes.

Methods: This prospective study was carried out at the Comilla Medical College Hospital, Bangladesh from July, 2014 to July, 2016. A total of 100 women with preterm labour between 30-36 weeks were assigned to receive nifedipine orally. The principal outcome assessed was delay of delivery.

Results: Nifedipine could successfully prolong delivery in 88% of cases. Most of the patients had no side effects. Main side effects were headache, palpitations and nausea. No serious fetal complications were recorded.

Conclusion: Nifedipine is a well-tolerated tocolytic agent with few side effects.

EP52

Scar endometriosis: Our experience

Singh S, Bishmita M, Mishra L, Bag DN, Patra S.

All India Institute of Medical Sciences (AIIMS), Bhubaneswar, India.

Background: The incidence of scar endometriosis is rising. We present our experience over 2.5 years.

Case series: Six patients presented with scar endometriosis over a period of 2.5 years. The chief complaint was cyclical pain and swelling during menstruation. In 3 cases, the scar endometriosis was on the previous scar, while in other three, it was either above or by the side of the previous scar. The size ranged from $2 \times 1 \text{ cm}$ to $5 \times 5 \text{ cm}$, with an average size of $3.5 \times 3.0 \text{ cm}$. The age of the patients ranged from 25 to 38 years, with a mean age of 30.1 years. 5/6 patients had 1 previous Caesarean section. The time since the last caesarean ranged from 3.5 to 10.0 years, with an average of 5.3 years. The onset of symptoms ranged from 0.5 to 6.0 years, with an average duration of 3.0 years. The treatment offered to them else where ranged from medical management (4/6), excision of scar endometriosis (1/6) to hysterectomy (1/6). In all cases, the clinical diagnosis was confirmed by ultrasonography, which revealed associated ovarian endometrioma in 1 case. Fine needle aspiration cytology was done for 2 cases, and was diagnostic in 1. MRI was done in 4 cases, and showed the degree of invasion in all 4 cases accurately, being associated with ovarian endometrioma in 1 case, and with intra-abdominal

extension in another. Wide local excision was done for all, confirmed by histopathology. At follow-up, patients were doing well.

Conclusion: Proper diagnosis, planning and management relieve symptoms in women with scar endometriosis.

EP53

Clinical audit on starting oseltamivir for suspected cases of influenza among pregnant women

Bodhinarayana TN, De Silva BGN, Karunaratne SMG.

Sri Jayewardenepura General Hospital, Sri Lanka,

Objective: Seasonal influenza can cause mild to severe disease in pregnant women. Recently there were few maternal deaths due to influenza infection. Recent local guideline has suggested to start oseltamivir in suspected cases on clinical grounds without waiting for laboratory confirmation. This audit was conducted to assess the early identification and starting treatment of suspected cases of influenza among pregnant mothers of ward 2, Sri Jayewardenepura hospital.

Method and results: All antenatal admissions with cough, documented fever and shortness of breath from march 15th to march 30th of 2017 were studied and their presenting symptoms were compared with their initial management. There were 6 admissions with above symptoms and out of them 4 (66.8%) were treated with Oseltamivir without waiting for laboratory confirmation. After that changes were implemented by giving instructions to start oseltamivir in those cases without waiting for laboratory confirmation. Secondary audit was conducted among admissions from 3rd of April to 18th of April 2017. 21 patients were included in that period and (18) 85% were treated with oseltamivir on clinical grounds without waiting for laboratory investigations.

Conclusion: Knowledge on early identification and starting treatment for suspected cases of influenza among pregnant mothers without waiting for laboratory confirmation is important even in a tertiary care setting.

EP54

A case report of female sexual inadequacy

Salih R², Randeniya C¹, Madumali HGH¹

¹Faculty of Medicine, Colombo, Sri Lanka,

²Premier Medical Centre, Sri Lanka.

Background: According to Masters and Johnson the size of the penis has no physiological effect on female sexual satisfaction because the vagina was described as a potential space that adapts to fit the size of the penis.

Casereport: 40-year-old Mrs. Shasha child of 16 years from her first marriage. She remarried and she is not happy about her sexual fulfillment and complained that her vagina is too loose at the time of intercourse and she does not feel the sensation. She presented to Winsetha Hospital Colombo and posterior repair was performed. Six months later she presented with the same complaint and wanted to narrow her vagina. Repeat repair was done to narrow the vagina.

Conclusion: Women who have had several sexual partners tend to compare each partner's size, shape, angle of penile insertion and position. In Sri Lanka people are reluctant to discuss their

sexual problems. Training of doctors to understand this very important area of medicine is vital.

EP55

A case report of antenatal screening and successful management of a pregnancy complicated with hepatitis B

De Silva BPGN, Bodhinarayana TN, Karunaratne SMG.

Sri Jayewardenepura General Hospital, Nugegoda.

Introduction: Hepatitis B is mainly transmitted via sexual contact, exposure to blood products and vertical transmission. Early detection and timely interventions during pregnancy can avoid vertical transmission to the baby.

Case report: A 31-year-old P2C1, had HBsAg positive at booking at 21 +5 weeks of POA. Shared antenatal care was provided with Medical and Virology teams. Subsequent investigations showed, HBsAg-Positive, HBeAg-Negative, HBeAntibody-Positive, HepB realtime PCR-Positive for Hep BDNA, Viral load-353 IU/ml. Conservative management was done since there was no active disease. Delivery was by a caesarean section with universal precautions. As the viral load was low, Hep B immunoglobulin was not administered to the baby however vaccination was provided.

Discussion: Universal screening at booking is recommended to prevent mother-to-child transmission. The risk is very high with the presence of HBeAg (70-90%) and high viral loads. It is recommended to start prophylactic antiviral therapy from 28-30 weeks to prevent vertical transmission if the viral load is >106. All invasive procedures should be avoided. Elective caesarean delivery is proposed although there is no convincing evidence. Breastfeeding is not contraindicated in HBV-infected mothers who are not on antiviral therapy and whose infants receive immunoprophylaxis. For patients who are HBeAg positive the infant should receive both active (HepB vaccine) and passive (Hep B Ig) vaccination.

EP56

A descriptive study on depression among pregnant women attending antenatal clinics at De Soysa hospital for Women

Shivakaran Y, Ruwanpathirana SA.

De Soysa Hospital for Women, Colombo, Sri Lanka.

Objective: To determine the proportion of the pregnant women affected with depression, and describe its symptomatology, severity and correlates.

Design, Setting and Methods: Descriptive study of depression among the pregnant women attending antenatal clinic at De Soysa Hospital for Women by using Edinburgh Postnatal Depression Scale and interviewer administered questionnaire.

Results: The study population included 216 pregnant women, in whom 31 were diagnosed having depression. Their mean age was 27.55 years (SD4.6) and fourteen were teenagers. One in five teenage pregnancies was identified to have depression. Pregnant women from Sinhala and Tamil communities had significant difference. Previous adverse obstetric outcome, antenatal complications, lack of social support, feeling unloved by partner, partner's smoking and / or drinking habits and having arguments with partner were found to have significant relationship with depression. Thoughts of self harm had occurred in 13% of depressed women sometime in the previous

week. Anxiety and worrying for no good reason, self blaming, scared and panicky, unhappy and difficulty in sleeping, sad/crying were the common depressive symptoms presented.

Conclusions: Socio-economic factors such as teenage pregnancy, ethnic origin, previous adverse obstetric outcome, antenatal complications and lack of social support and psychological factors such as feeling unloved by partner, partner's smoking and/or drinking habits and having arguments with partner are associated with prenatal depression.

EP57

A case report of malignant Sertoli cell tumour in a post menopausal woman

Sheyamalan S.

Base Hospital Point Pedro, Sri Lanka.

Background: Sertoli-cell tumour is a rare stromal cell tumour of ovary and accounts for 0.5% of ovarian tumours. This case report describes a rare presentation in a post menopausal woman.

Case report: A 65-year-old woman presented with post-menopausal bleeding. She had no features of virilisation. She is a known hypertensive. Her mother and sister died of endometrial cancer. Pelvic examination revealed non-tender pelvic mass. An ultrasound scan revealed bilateral adnexal masses with high vascularity. Curettage confirmed a simple hyperplasia without cellular atypia. CT scan showed solid adnexal mass suspicious of ovarian carcinoma and surface lesions on liver and a bulky uterus. At staging laparotomy there was moderate ascites, a bulky uterus with posterior wall fibroid, bilateral solid ovarian masses of 7cm X 10cm with surface breach and liver metastasis. Other abdominal viscera were normal. Total abdominal hysterectomy, bilateral salpingo-oophorectomy, infra colic omentectomy and pelvic lymphadenectomy were performed. Histopathology revealed malignant Sertoli cell tumour with heterogenous elements. Peritoneal fluid and pelvic nodes were negative. Immuno-histochemistry staining showed negative for Vimentin, EMA and WT-1. One month later she presented with clinical features of intestinal obstruction. Laparotomy showed extensive adhesions. There were metastatic deposits on ileo-caecal region, mesentery and jejunal obstruction. Gastro-jejunostomy was performed and she managed with palliative care.

Conclusion: Majority of Sertoli-cell tumours occur in young women and present with virilisation. One fifth exhibits heterologous endodermal elements and that determine prognosis.

EP58

A case report of heterotopic pregnancy following intrauterine insemination

Wijeratne YMTY, Bodhinarayana TN, Wickremasinghe WMRPTB, Ranaraja SK.

Teaching Hospital, Peradeniya.

Introduction: Heterotopic pregnancy (HP) is the rare occurrence of a simultaneous intrauterine and extra uterine pregnancy. Although previously only one case was reported following intrauterine insemination (IUI), incidence in natural conception is estimated to be 1 in 30,000 pregnancies.

Case history: A 43-year-old patient with history of primary subfertility for 2½ years, conceived following ovulation

e-Poster Presentations

induction with clomiphene citrate, hCG, and IUI. Ultrasound scan (USS) at 7 weeks of gestation revealed intrauterine pregnancy. At 12 weeks she presented with vaginal bleeding and abdominal pain. At that time USS was suggestive of intrauterine pregnancy with absent fetal heart beat and live extra uterine pregnancy with free fluid in the pouch of Douglas. Immediate laparotomy revealed 1.5l of haemoperitoneum with leaking left sided tubal pregnancy. Left salpingectomy and evacuation of retained products of conception were done. She was transfused three units of red cell concentrates and recovered with uneventful post-operative period.

Discussion: It has been shown that the incidence of HP increases with introduction of assisted reproduction techniques (ART), mainly in In-vitro fertilization. However, it may occur after ovulation induction and IUI. In this case, a live extrauterine pregnancy was missed during early USS. Therefore, assessment of adnexae irrespective of presence of intrauterine pregnancy in the first trimester is essential for early diagnosis and prompt intervention.

EP59

Case report of a cornual ectopic pregnancy

Prasanga DPGGM, Pallemulla LC, Niranga KKG, Athulathmudali SR, Rajeevan J.

Castle Street Hospital for Women, Colombo 08, Sri Lanka.

Introduction: Cornual or Interstitial ectopic pregnancy is the placement of an ectopic pregnancy to the uterine part of the fallopian tubes. Incidence is 2-4% of all ectopic pregnancies. Due to the vascular and connective tissue support and anatomic localization diagnosis and treatment is usually late and rupture takes place later during pregnancy causing massive haemorrhage. Therefore, mortality risk is 2-5 times more than other ectopic pregnancies. Thus, early diagnosis and treatment is very crucial.

Case report: A 34-year-old woman in her second pregnancy admitted to gynaecology unit with sudden onset abdominal pain at 7 weeks of period of amenorrhoea. Her first pregnancy was a right sided tubal ectopic, where she underwent right salpingectomy. Following eight years of secondary infertility she conceived spontaneously. On admission she was haemodynamically stable and the urinary hCG was positive. Ultrasound Scan revealed empty endometrial cavity with right cornual ectopic pregnancy without fetal cardiac activity. There was minimal amount of free fluid in the pouch of Douglas. Emergency laparoscopy was performed. A leaking right cornual ectopic pregnancy was identified with 100cc of blood in the POD. Laparoscopic cornual resection was done.

Conclusion: Management of cornual pregnancy can be a nightmare as the diagnosis is difficult and delayed. Therapeutic options also carry risks. Cornual excision and hysterectomy are the traditional treatment modalities. Medical management with systemic or local methotrexate and laparoscopic surgery are the modern treatment options.

EP60

Fetal multi cystic dysplastic kidney (MCDK) –A rare case presentation

Prasanga DPGGM, Pallemulla LC, Abirami R, Niranga KKG, Athulathmudali SR, Rajeevan J.

Castle Street Hospital for Women, Colombo 08.

Background: Multi cystic dysplastic kidney (MCDK) is a congenital developmental anomaly consisting of multiple

variably sized cysts, with little or no normal renal tissues. MCDK is usually unilateral and involves the entire kidney. Incidence is 1:2400-4300 live births. Confusion between MCDK and fetal hydronephrosis may occur, particularly in cases with a single predominant large cyst. Antenatal diagnosis is imperative for prenatal counselling of parents and postnatal therapeutic planning.

Case report: A 27 year primigravida referred to our unit at 30 weeks of gestation with an ultrasonic finding of fetal intra-abdominal cyst. Detailed Ultrasound scan revealed a large septated cystic lesion filling the entire abdominal cavity. Differential diagnoses were duplication cyst, lymphangioma or mesenteric cyst. Other anomalies were not detected. Cyst was regularly assessed ultrasonically. At term the size of cyst was 10x

8.6x6.2cm and the baby was delivered by caesarean section due to the large fetal abdomen and died on the third day of life. Postmortem revealed large multi cystic right kidney with completely abnormal left kidney.

Conclusion: Distinguishing fetal hydronephrosis from MCDK is essential because the approach of therapy and indications for surgery differ for each. Fetal magnetic resonance urography can accurately diagnose a wide variety of genito urinary abnormalities. In our case we did diagnose the renal anomaly. MCDK must be considered in dealing with fetal intra-abdominal cystic lesions.

EP61

Recurrence of oral pyogenic granuloma in consecutive pregnancies- A case report

Prasanga DPGGM, Pallemulla LC, Rajeevan J, Silva PGYS.
Castle Street Hospital for Women, Colombo 08.

Introduction: Pyogenic granuloma (PG) is a tumour-like growth in the oral cavity. The name is misleading, because the lesion is unrelated to infection and it is not a true granuloma. It manifests as painless sessile or pedunculated, erythematous, exophytic growth. This benign hyperplastic lesion occurs in up to 5% of pregnancies. Irritation, physical trauma and hormonal factors contribute and can be seen in frequently traumatized places such as lowerlip, tongue, oral mucosa and palate at the end of the first trimester. This is a case report where it occurred in the third trimester in two consecutive pregnancies at the same site.

Case report: A 28-year-old woman in her second pregnancy presented to the antenatal clinic with a complaint of gradual onset painless lump in upper palate at 36 weeks of gestation. She had same experience in her first pregnancy at term, at the same site which settled spontaneously following delivery. On this admission the lesion was biopsied. It revealed a pyogenic granuloma of the oral cavity. She was managed conservatively and it recovered spontaneously following delivery.

Conclusion: Pyogenic granuloma is an inflammatory hyperplastic lesion that occurs on the gingiva during pregnancy. Management depends on the severity of the symptoms. Small, painless and bleeding free lesions can be managed conservatively. Surgery is recommended if bleeding or pain impedes daily activities. Other procedures like cryosurgery, laser

therapy or sclerotherapy can also be employed.

EP62

Standard maintenance of partogram: an audit in a tertiary care centre

Patabendige M, Kajendran J.

North Colombo Teaching Hospital, Ragama, Sri Lanka.

Objective: To assess the standards of maintaining partogram in University Obstetrics Unit, Colombo North Teaching Hospital, Ragama, Sri Lanka.

Design, setting and methods: Retrospective analysis of randomly selected partograms was conducted November and December 2016. Gold standard is 100% accurate maintenance of the components of the partogram and 100% accurate interventions whenever it is necessary.

Results: Total of 121 partograms were studied. Mean (SD) age was 28.3 years (5.6). Mean parity was 1.6 (0.8). Mean gestational age was 38.4 (2.6). Hundred and three (85.1%) women had a vaginal delivery. From the women who had a caesarean section, 8 (44.4%) women had lack of progress in labour. MEOWS chart properly maintained only in 51 (47.1%) cases, maintenance was substandard in 44 (36.4%) cases and in 26 (21.5%) cases it was not maintained at all. Those who had special problems, only 6 out of 43 had written special instructions. Out of all, 24 (31.2%) had substandard documentation of contractions. Out of all partograms with documented duration of contractions, 17 (21.8%) had substandard documentation. Fetal heart rate properly documented in 94 (77.7%). Action and alert lines were drawn in 24 (63.2%)

High risk pregnancies and it was documented only in one case (16.7%) of trial of scar out of six. However, 115 (95.0%) had a good 1 minute and 119 (98.4%) had a good 5 minute APGAR score. Neonatal resuscitation was performed for 6 (5.0%).

Conclusion: Although neonatal outcome is satisfactory, standard documentation of partogram is significantly poor. This needs to improve through education and frequent auditing. After this audit, a specific seminar was conducted using the SLCOG partogram training module.

EP63

A Case Report of Abdominal Pregnancy

Rajeevan J¹, Sritharan A², Hamzathwany R², Prasanga DPGGM¹.

¹Castle street Hospital for Women, Sri Lanka.

²Faculty of Medicine, University of Jaffna, Sri Lanka.

Background: Abdominal pregnancy is where the gestational sac implants in any structure within the peritoneal cavity. Abdominal ectopic pregnancy is an extremely rare, which represents 1% of all ectopic pregnancies and is associated with high maternal and fetal morbidity and mortality. The maternal mortality risk of an abdominal ectopic pregnancy is seven to eight times greater than the risk of a tubal ectopic pregnancy and has a 90 times greater risk of an intrauterine pregnancy.

Case report: A 30-year-old woman in her second pregnancy presented to the antenatal clinic at POA of 11 weeks. She did not have vaginal bleeding or abdominal pain. Ultrasound scan revealed bulky empty uterus with Intra-abdominal live ectopic pregnancy. Laparotomy was done. Ectopic pregnancy identified in the sigmoid meso-colon. The placenta was implanted on it. And left fallopian tube adherent to the ectopic pregnancy and feeding vessels were noted through the fimbrial end. Ectopic

pregnancy was removed along with the left uterine tube. Post-operative period was uncomplicated.

Conclusion: Most cases of abdominal pregnancies are secondary from aborted or ruptured tubal pregnancies. Very rarely fertilized ovum implants itself primarily on to an abdominal organ. In this case it was obvious that the abdominal implantation on sigmoid meso-colon was primary as there were no evidence of tubal rupture.

EP64

A case report of spontaneous rupture of a scarred uterus in second trimester

Gunathilaka SNMPK, Lanerolle S, Jayalath JAVS, SiriwardenaDS, Sumanathissa RPJ, Kodithuwakku KASUA, Castle Street Hospital for Women, Sri Lanka.

Background: Uterine rupture is an uncommon complication in pregnancy. It is more frequent in scarred uterus mainly during labour. Spontaneous rupture is rare and its occurrence in second trimester is even rarer. We report a case of spontaneous rupture of a scarred uterus in the second trimester.

Case: A 38-year-old mother of 2, had presented at 26 weeks POA. Her first child was delivered vaginally and second child was delivered by an emergency caesarean section in at 38 weeks of POA due to fetal distress. Two days after diagnosing this pregnancy, she developed abdominal discomfort an exertional dyspnoea, which worsened gradually. Discomfort was continuous and generalized. Over the next two days' fetal movements were reduced. On the fourth day, she was admitted with severe pain and absent fetal movements. She was pale. BP was 70/40 mmHg and PR was 130/min. Abdomen was tender with guarding. The cervical os was closed. USS showed a dead fetus and free fluid in hepato-renal pouch. An emergency laparotomy was done. There was haemo-peritoneum with well-organized clots. The dead fetus was in the abdominal cavity within the intact sac. The uterus was ruptured over the scar extending downwards, with intact vessels in the broad ligament. A subtotal hysterectomy was performed as it was difficult to repair the uterus.

Conclusion: Immediate cardiovascular collapse and symptoms may be absent in uterine rupture unless the tear extends into the broad ligament vessels. Therefore, even mild symptoms from early gestations need more attention in a patient with a scarred uterus.

EP66

Detection of heart disease in pregnancy: an institutional survey

Jayasekara NMTC¹, Kogulan T¹, Jegavanthan A¹, Jayasekara NMTC¹, Sirisena TS¹, Jayawikreme SR¹, Abeykoon W², Ekanayake SB², Hemapriya S², Kodithuwakku NW¹, Dolapihilla SNB¹, Weerakoon WMG¹, Kularathne A¹.

¹Department of Cardiology, Teaching hospital, Kandy.

²Department of Gynaecology, Teaching hospital, Kandy.

Design, setting and methods: A retrospective crosssectional study was conducted on pregnant women who were referred to Teaching Hospital, Kandy, in the year 2016. Interviewer administered questionnaire, referral notes and cardiac investigation reports were studied during data collection. All of them were followed up during their pregnancy and post-partum period.

e-Poster Presentations

Results: There were 1168 referrals to cardiology unit with a suspicion of a cardiac disease during pregnancy. Out of them, only 81 had cardiac lesions. The most common indication for referral was the detection of cardiac murmur. Tachycardia, dyspnoea and peripheral oedema were the other indications for referral. Most referrals were from obstetricians and community medical officers of health. Majority of referrals were made in the first trimester. There were 18 with World Health Organization (WHO) risk category IV cardiac lesions where the pregnancy is contraindicated. Out of them 2 had mortality due to the cardiac illness. There was a high caesarean section rate (n=74) 82.05% (n=64) were offered contraceptive advices. Of the 81.56.41% underwent permanent sterilization.

Conclusions: Most referrals are from Obstetricians and were made early in the pregnancy. Maintaining of low threshold for cardiac referrals and multidisciplinary combined management improve the outcome in patients with a high cardiac risk during their pregnancy.

EP67

A case report of hashimoto's encephalitis in Pregnancy

Herath CMB, Ekanayake SB, Wansapura K, Higgoda E. Teaching Hospital, Kandy, Sri Lanka.

Background: Hashimoto's encephalitis is a rare relapsing encephalopathy. It is thought to be an immune mediated disease commonly seen in females. Mean age of onset is around 42 years and prevalence is 2/100,000.

Case presentation: A 30-year-old previously healthy primigravida in 14 weeks of gestation was transferred to intensive care unit after successful resuscitation for sudden cardio-respiratory arrest. She developed confusion with alteration of consciousness, fever and headache within two days. She needed ventilation only on and off and remained in the ICU for five days due to altered level of consciousness and blood pressure instability. She was found to have apraxia, transient aphasia, attention deficit and amnesic episodes during recovery with transient episodes of disorientation. She developed two episodes of generalized seizures which lasted for few seconds. She was febrile. Her pulse rate was 130 bpm, blood pressure of 108/64mmHg with inotropes. Her GCS was fluctuating with no sensory, motor deficits. No goitre. Investigations revealed Neutrophil leucocytosis, mildly elevated liver functions and elevated CRP. Serum electrolytes, random blood glucose and cortisol were normal. Serology of Dengue, Mycoplasma, ANA, HSV type 1 & 2 were negative. Her TSH was 1.2mIU/mL, with a free T4 level of 0.972 ng/dL. Thyroid peroxisomal antibody was positive. Cultures of blood, CSF, urine, endotracheal secretions were negative. Her CSF analysis was normal. Non specific EEG abnormalities are seen. CT, MRI brain was done to exclude brain lesion. USS revealed growth compatible single live fetus with left sided dermoid cyst. She was started on IV Meropenam, Teicoplanin with Tamiflu. For seizures phenytoin Na and levetiracetam were given. With IV methylprednisolone her altered mental status remained unchanged. IV immunoglobulin and 5 cycles of plasmapheresis improved her mental status drastically and became more alert. Due to transient aphasia speech therapy was arranged. On day 22 she was discharged after assessing viability of fetus.

Conclusion: Patients present with unexplained symptoms including confusion, seizures, cognitive impairment and psychiatric manifestations should suspect this rare disease as it is treatable with favourable prognosis. It is a diagnosis of exclusion.

High titre of anti-thyroid peroxidase or antithyroglobulin antibody levels with marked response to steroids is diagnostic. Elevated thyroid autoantibodies can cause miscarriages. It is important to be aware of it because treatment with corticosteroids is almost always successful but if left untreated can result in coma and death.

EP68

Puerperal pyrexia: a prospective audit in two tertiary care hospitals, Sri Lanka.

Chandrasinghe SK², Patabendige M¹, Athulathmudali SR².

¹University Obstetrics Unit, Colombo North Teaching Hospital, Ragama, Sri Lanka.

²Castle Street Hospital for Women, Colombo, Sri Lanka.

Objective: To evaluate the occurrence of puerperal pyrexia in two major hospitals in Sri Lanka.

Design, setting and methods: A prospective audit was conducted in postnatal wards of University Obstetrics Unit, North Colombo Teaching Hospital (NCTH), Ragama, Sri Lanka and Castle Street Hospital for Women (CSHW), Colombo, Sri Lanka.

Results: There were total of 997 deliveries in NCTH unit and 550 in CSHW unit during the study period. We prospectively studied 60 women who had puerperal pyrexia over a period of three months. Mean (SD) age is 29.1 (5.6) years, median (IQR) parity is 1.0 (1-2) and mean BMI (SD) is 28.3 kg/m² (4.2). There were 29 (48.3%) caesarean deliveries and 24.1% of them were category 1/2 caesarean deliveries. Eighteen women had rupture of membranes for less than 24 hours. Median (IQR) vaginal examinations performed were 5 (3-7). Mean (SD) antibiotic starting time was 7.1 (16.1) hours. Relevant bacterial cultures were not taken before giving antibiotics in 39 (65.0%) cases and 18 (30%) neonates were treated as sepsis. Placental swabs were not taken in any of the cases with suspected chorioamnionitis for bacterial culture. Appropriate septic screening was not done in 29 (48.3%) cases. However, none of the women had acute severe obstetric morbidity due to sepsis.

Conclusion: Management of puerperal pyrexia needs to be improved with special attention to caesarean deliveries. Preventive strategies such as avoiding multiple vaginal examinations, early initiation of antibiotics (<1 hour of recognition of sepsis) and appropriate septic screening before commencing treatment have to be encouraged.

EP69

Experience in management of hospital admissions due to respiratory illness among pregnant women during Influenza epidemic in a tertiary care hospital, Sri Lanka

Weerasinghe AM, Jeewantha RD, Herath CMB, Rubasinghe AJ, Silva KCDP, Pathiraja RP, Jayawardane MAM.
Colombo South Teaching Hospital, Sri Lanka.

Objectives: Hospitalization of pregnant women with respiratory morbidity increased during recent influenza epidemics. The leading cause of maternal mortality in Sri Lanka in last few years were due to respiratory illnesses. Therefore, development of protocols for hospitalization and management of pregnant women with respiratory problems is essential.

Design, Setting and Method: We conducted a descriptive study to evaluate the impact of respiratory illness during pregnancy in a tertiary care hospital, Sri Lanka. Data were obtained from the patient records of pregnant women who were hospitalized from February 2017 to May 2017 due to respiratory symptoms. Analysis were done according to the presenting symptoms, investigation results, management and length of hospital stay.

Results: Respiratory problems accounted for 42 (34.6:1000 total admissions to the Obstetric unit) admissions during this four months' period with a mean hospital stay of four days. 23 (54%) managed as upper respiratory tract infections, 15 (35%) managed as lower respiratory tract infections and 04 (01%) diagnosed as H1N1 infection. 08 (19%), 12 (28%), and 22 (52%) were in their first, second, and third trimesters respectively. Commonest symptom was cough (85%) followed by fever (55%) and sore throat (33%) with a mean duration of 2.6 days. 08 (19%) women had precipitating factors for respiratory morbidity out of which bronchial asthma was the commonest. Full blood count, CRP and H1N1 screening were done in every woman and results revealed moderately elevated CRP (<50 mg/L), leukocytosis with predominant lymphocytic count suggestive of viral infection and H1N1 test was positive only in 04 (01%). 92% of women received antibiotics and 55% were referred to the physician. 14 were given oseltamivir 75 mg for five days considering the H1N1 epidemic. No maternal deaths or any serious complications occurred among them.

Conclusion: Hospitalizations with respiratory illness among pregnant women during influenza season are associated with increased burden for patients as well as the health care system. Prompt investigation and management will result in decreasing influenza-related respiratory morbidity among pregnant women.

EP70

The prevalence and impact of post menopausal vasomotor symptoms in women attending gynaecological clinic at Base hospital, Maha Oya – A descriptive study.

Pushpakanthan EJ², Sivachandran S¹, De Silva R¹

¹National Cancer Institute, Maharagama.

²Base Hospital, Maha Oya.

Background: Vasomotor symptoms are common in post menopausal women. It may severely affect the quality of life of a woman. Although Sri Lankan menopausal society is involved actively to improve the postmenopausal health in the country, still there is a large population of postmenopausal women without adequate support to cope with the menopausal symptoms.

Objective: To assess the prevalence of the vasomotor symptoms, associated risk factors and its impact on a woman.

Study design: A descriptive study was conducted among all consenting post-menopausal women attending gynaecology and medical clinics at Maha Oya Base hospital over a period of four months. An interviewer administered questionnaire was used to collect data regarding background factors, the frequency and intensity of hot flushes.

Results: There were 108 participants. Mean age of the study group was 57 years. Of them 69.4% (75) reported hot flushes in the past or at present. Among this symptomatic population 73.3% (55) accepted it as a normal phenomenon and adapted to live with

it, without seeking medical advice. Among the study population only 2 were on therapy. None used oestrogen preparations. Only 10.1% (11) women were aware about the lifestyle modifications to cope with the hot flushes. All of the symptomatic women who were not on HRT agreed that if they were aware that there is an effective way to manage hot flushes they might have considered it. Hot flushes disturbed the sexual life of 10.6% (8) women and 38.6% (29) reported that they had some restriction in their day to day activity due to hot flushes. Among women with hot flushes risk factors such as sedentary life style, obesity, low educational level (< Ordinary level), smoking and alcohol intake were seen in the 32%, 22%, 39%, 2.6% and 4% respectively.

Conclusion: Although significant number of postmenopausal women suffer from vasomotor symptoms, only few are aware about the nature of this problem and remedies. It has a significant impact on their quality of life. Adequate health education on vasomotor symptoms and conservative or pharmacological remedies should be extended to this population.

EP71

A case report of mermaid syndrome

Suthakaran V², Sūhunthan N¹, Kunatheesan P¹, Sritharan A¹

¹Teaching Hospital, Jaffna, Sri Lanka.

²Colombo North Teaching Hospital, Sri Lanka.

Background: Mermaid Syndrome also known as sirenomelia is an extremely rare congenital malformation, estimated to occur in 60 000 to 100 000, characterized by partial or complete fusion of the lower limbs resulting in a structure that resembles a mermaid. Additional developmental malformations may also occur in the genitourinary system, gastrointestinal system and spine. We report a case that resulted in a second trimester miscarriage.

Case: In a 30-year-old primigravida at 19th weeks of gestation the anomaly scan showed fusion of both lower limbs into a single limb with oligohydramnios. Diagnosis of mermaid syndrome was made. She miscarried at 23 weeks of gestation. Physical examination of the fetus showed complete fusion of the lower limbs with one toe. The external genitalia and anal orifice were absent, Morphological and radiological appearance of the fetus confirmed the antenatal diagnosis.

Discussion: Mermaid syndrome is caused by a deficiency of mesoderm migration to the caudal region of the embryo during gastrulation. Mesoderm of this region is also involved in the development of the lumbosacral vertebrae, as well as the urogenital and gastro-intestinal systems. While it was previously thought to be in the same spectrum of caudal regression syndrome, this proposition is now heavily debated and it is now thought to be a distinct disorder.

Mermaid syndrome can be reliably diagnosed by antenatal ultrasonography or postnatal radiography of the lower limb bones. It is broadly subdivided into three main categories based on the number and morphology of the lower limb bones: 1. Sirenomelia Dipus- Two feet and two fused legs (flipper like; this is called a "mermaid") 2. Sirenomelia Unipus- One foot, two femurs, two tibiae and two fibulae 3. Sirenomelia Apus- One tibia and one femur only, no feet. The exact cause of sirenomelia is unknown, most cases occur randomly for no apparent reason. This condition is often fatal and is incompatible with life.

EP72

An audit on pre-operative investigations of gynaecological patients

Jayawardane MAMM, Silva KCDP, Samarawickrama NGCL, Ruwanpura LP, Withanatantrige MR, Jeewantha RD.

University Obstetrics and Gynaecology Unit, Colombo South Teaching Hospital, Sri Lanka.

Objectives: This audit was conducted to assess the practice of performing pre-operative investigations for gynaecological patients and to assess the additional cost that can be saved by adhering to guidelines.

Methods: Pre-operative investigations of all patients undergoing elective gynaecological surgery at University Gynaecology Unit, Colombo South Teaching Hospital were audited from 15th of August to 14th of September 2016. Patients were categorized according to ASA grading and surgical category. Necessity of investigations was categorized into 'recommended', 'may consider' and 'not recommended' according to NICE guideline. Direct cost of each investigation was evaluated in each category.

Results: Out of all investigations done for the minor procedures only 11.9% (n=10) were considered 'recommended', with a cost per patient was only 80.40 LKR. 26.1% (n=22) belonged to 'may consider' category with a cost per patient was 162.00 LKR and 62% (n=52) was categorized as 'not recommended' costing 474.00 LKR per patient. Out of all investigations done for intermediate procedures, only 9.7% (n=9) were considered 'recommended', with a cost per patient was 107.70 LKR. 11.9% (n=11) investigations belonged to 'may consider' category with a cost per patient was 156.10 LKR. 78.2% (n=72) was categorized as 'not recommended' costing 1243.07 LKR per patient. Out of all investigations done for major procedures, only 33.5% (n=52) were considered 'recommended' with a cost of 428.00 LKR per patient. 39.3% (n=61) belonged to 'may consider' category with a cost of 486.80 LKR per patient. 27.1% (n=42) of investigations in this group were categorized as 'not recommended' costing 411.20 LKR per patient. Out of all 331 investigations that were done, only 21.5% (n=71) were recommended while 50.2% (n=166) were considered 'not recommended'. Expenditure on 'not recommended' investigations was 38290.00 LKR for the one-month period. Majority of 'not recommended' investigations were done for intermediate surgeries. Total cost for 'may consider' category was 18250.00 LKR, which can be brought down significantly with correct patient selection.

Conclusions: Local guideline for routine preoperative tests prior to elective surgery should be developed in collaboration with anaesthesiologists. Introductory work shop on using this guideline should be organized with the participation of all surgical and anaesthetic teams. Re-audit will be arranged to assess the impact of intervention.

EP73

A case report of exogenous caesarean scar pregnancy

Dissanayake TB.

Neville Fernando Teaching Hospital, Malabe, Sri Lanka.

Background: Caesarean scar pregnancy (CSP) is a rare form of ectopic pregnancy with a reported incidence of 1 in 2500 pregnancies. Incidence of CSP is increasing due to increased caesarean sections as well as increased awareness and detection. CSP can be classified as endogenous (type 1) and exogenous (type 2). Diagnosis after attempted surgical evacuation for missed

miscarriage is not uncommon.

Case: A 39-year-old mother of 2 children, presented in her sixth pregnancy at a period of gestation of 8 weeks, with a history of painless mild vaginal bleeding. She had a history of three recurrent first trimester miscarriages managed surgically, followed by two uncomplicated pregnancies delivered by elective Caesarean section, 5 years and 3 years ago. On examination she was not pale, Abdomen was soft and non tender. Cervix was soft, os closed. Uterus was anteverted, bulky with no adnexal masses. Transvaginal scan was suggestive of a non-viable cervicoisthmic pregnancy with crownrump length 13.6mm. Her blood group was A positive. A surgical evacuation of products was performed with a presumed diagnosis of missed miscarriage.

She was readmitted 4 weeks after the procedure due to persistent vaginal bleeding. She was clinically stable and was not pale. Her haemoglobin was 12.9g/dl. Ultrasound revealed a solid mass with cystic areas in the anterior aspect of uterus suspicious of a degenerating fibroid. Serum hCG was 2769.5IU/ml. MRI abdomen pelvis was reported as a degenerating exophytic fibroid arising from the anterior aspect of uterus. Due to suspicious nature of the lesion, an explorative laparotomy was performed. A mass arising from anterior aspect of uterus was identified with the bladder firmly adherent to the mass, which was opened into during dissection. Total abdominal hysterectomy followed by bladder repair was done. Her recovery was uneventful and was on catheter for 2 weeks. Histology revealed chorionic villi and trophoblastic tissue within a thin layer of fibrous tissue invading the adjacent myometrium, compatible with an exogenous CSP.

Conclusion: Diagnosis of a CSP at early gestation is challenging and needs to be differentiated from cervical ectopic pregnancy and miscarriage. A high degree of clinical suspicion is necessary especially in a patient with a history of past caesarean section. Management is mainly surgical. Dilatation and evacuation, hysteroscopy procedures mainly effective for endogenous type CSP while exogenous type CSP requires abdominal or laparoscopic resection.

EP74

Rare case of caesarean scar endometriosis

Bandara HGWAAK, Amarapathi PWCJ, Niranga KKG

Teaching Hospital, Kandy.

Background: Endometriosis is defined as the presence or growth of ectopic endometrial tissue. Although most frequently found in the pelvis, reported cases of extra-pelvic endometrial locations range from the lungs to the extremities. Incisional or scar endometriosis has also been described, however, with a much rarer incidence. It commonly follows obstetrical and gynaecological surgery.

Case presentation: A 26-year-old woman presented with a painful abdominal scar with ulceration. She was another wise healthy woman with no significant medical history. Her surgical history included an uncomplicated caesarean section two years back. She complained of increasing pain and tenderness and gradual development of nodularity over the scar and also experienced cyclical pain. Surgical excision was done. The scar was completely excised with the nodular portion. The histology revealed "dermal fibrosis with endometriosis".

Discussion: Scar endometriosis is a rare entity, and the incidence has been estimated to be only 0.03% to 0.15% of all cases of endometriosis. Many theories as to the cause of scar

endometriosis have been postulated. The generally accepted theory is the iatrogenic transplantation of endometrium to the wound during pelvic surgery.

Conclusion: Scar endometriosis is a rare and often elusive diagnosis that can lead to both patient and physician frustrations. One should maintain a high level of suspicion in any woman presenting with pain at an incisional site, most commonly following pelvic surgery.

EP75

A Case Report of Mucinous adeno carcinoma of the appendix with ovarian metastasis, mimicking primary ovarian carcinoma

Nallaperuma OL¹, Rankothkumbura JP², Ranaraja S³, Wickamasinghe R¹, Galketiya KB², Wijetunge S⁵, Gunasekara D⁴

¹Teaching Hospital, Peradeniya.

²Surgical Unit, Teaching Hospital.

³Peradeniya, Obstetrics and Gynaecology Unit, Teaching Hospital, Peradeniya.

⁴National Cancer Institute, Maharagama.

⁵Department of Pathology, Faculty of Medicine, University of Peradeniya, Sri Lanka.

Background: Primary mucinous tumours of the ovary are common, but the chance of one being malignant is only 15%. Secondary ovarian tumours account for only 5% of all ovarian tumours. Their primary sites include appendix, colon, stomach and breast. Tumours of the appendix are rare and most are diagnosed incidentally on appendicectomy specimens. We report a case of mucinous adenocarcinoma of the appendix which initially appeared as a mucinous adenocarcinoma of the ovary. Even though adenocarcinoma of the appendix is rare it is crucial to differentiate it from its ovarian counterpart as the management is entirely different.

Case Report: A 56-year-old postmenopausal woman, presented with abdominal distention due to a pelvic mass for three months. Ultrasound and CECT showed bilateral ovarian masses; the right measuring 23*26*14cm, and the left measuring 5*3.5*4.5cm, mucinous in appearance with multiple septations and small amount of free fluid without evidence of metastasis. CA125 was 19IU/L and RMI was 171. Exploratory laparotomy revealed bilateral ovarian tumours consisted of mucoid material within multiple septations. The larger right sided mass had a breached capsule and mucoid tumour deposits were found throughout the pelvic peritoneal surface, over the greater omentum, rectum, appendix, and the inferior surface of the diaphragm. The liver was free of deposits. Total abdominal hysterectomy with bilateral salpingo-oophorectomy, infra-colic omentectomy and appendicectomy were performed. Histology revealed a primary low grade mucinous adenocarcinoma of the appendix with secondary ovarian and omental deposits. In immunohistochemistry, CK20 was positive and CK7, ER and PR were negative. Post-operative CEA was 17mIU/L. She was offered six cycles of intravenous chemotherapy, followed by laparoscopic right hemicolectomy and peritoneal stripping of all possible macroscopic deposits. Another 6 cycles of chemotherapy were repeated.

Conclusion: When a mucinous tumour is suspected by imaging, it is prudent to investigate for a primary site pre-operatively by tumour markers such as CEA, upper and lower gastro-intestinal endoscopy and mammography. Furthermore, in a case of mucinous ovarian tumour, appendicectomy and immunohistochemistry will guide the diagnosis.

EP76

Conventional Povidone- Iodine paint technique vs. spray technique in pre operative antisepsis of anterior abdominal wall: a comparison of effectiveness and cost.

Kodithuwakku KASUA¹, Hemapriya S², Gnanarathne DMST², Lanerolle S¹, Gunathilaka SNMPK¹, Musthaq ACM¹

¹Castle Street Hospital for Women, Colombo 08.

²Teaching Hospital, Kandy, Sri Lanka.

Background: The conventional Povidone- Iodine paint method used for the preoperative preparation of abdominal wall uses more or less a fixed volume of Povidone-Iodine (50ml in the study setting) in all patients, in which at times the solution is wasted. The recommendations are to use an alcohol based solution for the sprayers. However, its use is limited by the high cost of alcohol based solutions. The idea of this study was to introduce aqueous based Povidone-Iodine in a sprayer as a more cost effective and operator-convenient alternative to the conventional paint method.

Objectives: To compare the cost effectiveness of Povidone-Iodine spray technique and conventional paint technique in reducing abdominal wall bacteria.

Methods: The sample included 70 patients, who underwent elective gynaecological surgery at Teaching Hospital, Kandy. This was a non-randomized clinical trial, which compared two methods of preoperative antisepsis of the anterior abdominal wall. In all the patients, half the abdomen was prepared using the conventional technique and the other half using the new spray technique. Pre-preparation and post-preparation skin swabs were taken and cultured to assess the mixed bacterial colony counts. Percentage reduction of mixed bacterial colony counts between preoperative and post-operative cultures for the two methods separately and the volume of Povidone-Iodine used in each method were evaluated.

Results: The mean percentage reduction in mixed bacterial colony count in spray method was 98.78% and in the conventional paint method was 98.74% ($p = 0.963$). The mean volume of Povidone-Iodine used in the spray method was 33.514 ml which was significantly less than the 50 ml used in conventional method.

Conclusion: Both the conventional paint only technique and the new spray technique are equally effective in reducing abdominal wall bacteria. The volume of Povidone-Iodine used in the spray method is significantly less than that of the conventional method. Therefore, the new method can be used as a cheap alternative.

EP78

Patients' awareness on major gynaecological surgical procedures they undergo in a gynaecological oncology unit.

Athulathmudali SR, Ruwanpura LP, Jayalath JAVS, Gunasingha ADHN, Hapuarachchi C, Premarathn.

Apeksha Hospital, Maharagama, Sri Lanka.

Introduction: Informed valid consent represents the legal, professional and mutual bond between the healthcare professionals and their patients. Patients hold every right to know the risks associated with the elective procedures they are

subjected to, before giving consent. Risk is often defined with regard to surgery as the likelihood that harm will occur from a particular procedure, probability of an outcome and these verities of that outcome. Royal College of Obstetricians & Gynaecologists (RCOG) recently published clinical governance guidelines on obtaining informed valid consent and obtaining consent for major gynaecological procedures.

Objective: To assess the adherence to current standards in obtaining informed valid consent in a gynaecological oncology unit.

Methodology: A clinical audit was performed over one-month duration, among 60 patients (age between 25-65 years) who underwent major surgery for cervical, uterine or ovarian carcinoma, in the gynaecological-oncology unit of National Cancer Institute. The information they received prior to the procedure in both qualitative and quantitative (probability) manner, was assessed via an interviewer based questionnaire. Specific risks and their probabilities were categorized according to the particular surgery.

Results: In all 60 study patients a medical officer was involved in the delivery of information prior to consent. 14 (23%) could name the procedure and 22(36%) knew the basic components of the procedure. 34 (56%) knew the intended benefits and 31 (51%) of them were aware of serious risk associated. Only 3 (5%) knew approximate probability of serious risks. 40 (66%) of them knew the frequent risks and only 3 (5%) knew probability of frequent risks. Extra procedures which may become necessary during procedure were known by 28(46%). 18 patients (30%) knew the available alternative treatments (where relevant). 48(80%) knew the mode of anaesthesia they are subjected to. 31(51%) admitted that they were given the chance to ask questions and mean (SD) satisfaction on consenting procedure is 3 in a scale of 1 to 5.

Conclusion: Over all adherence to standards in obtaining informed consent is unsatisfactory in the unit. Staff education on current clinical governance guidelines and implementing procedure specific information sheets, were proposed as interventions. Re- audit cycle will be carried out after the interventions to assess the efficacy of it.

EP79

A case report of fertility sparing treatment in a young patient with endometrial cancer.

Ruwanpura LP, Hapuarachchi CK, Athulathmudali SR, Gunasingha ADHN, Jayalath JAVS.

National Cancer Institute, Maharagama, Sri Lanka.

Background: Endometrial cancer is becoming more prevalent especially in developed countries. While the majority are in postmenopausal women, nearly 5% of cases occur before 40 years of age. The primary intervention in treating endometrial cancer is hysterectomy and bilateral salpingo-oophorectomy. As modern day women are increasingly delaying having children, concerns over fertility sparing treatment of endometrial cancer has become common.

Case: A 36-year-old patient with subfertility had undergone multiple ovulation induction cycles initially with clomiphene citrate and later with letrozole. During the fertility workup she was found to have an anterior wall intramural fibroid and had undergone open myomectomy. Prior to opting for an IVF she has undergone a hysteroscopy which revealed a hyperplastic endometrium with a 0.5cm size endometrial polyp closer to left ostium. Polypectomy was performed and histology revealed a well differentiated endometrioid adenocarcinoma. Combined

trans-vaginal and trans-abdominal ultrasound scan of pelvis and abdomen was normal. Dynamic contrast enhanced MRI did not reveal evidence of extra uterine disease. She was started on continuous oral medroxy progesterone acetate. Two months after commencing treatment hysteroscopy was done which revealed an atrophic endometrium. During repeat hysteroscopy at 6 months further endometrial thinning was noted. A plan was drawn up in collaboration with subfertility specialist for IVF followed by hysterectomy after a possible successful pregnancy.

Conclusion: In young women with low risk type endometrial carcinoma where fertility sparing is required, medical management with progestins is a viable treatment modality.

EP80

Case report of Meig Syndrome with Elevated Serum CA125

Thanuya M¹, Ruwanpathirana SA²

¹District General Hospital, Kilinochchi.

²De Soysa Hospital for women, Sri Lanka.

Introduction: Meig syndrome is a rare but well known syndrome defined as the association of ascites, pleural effusion and a benign solid ovarian tumour usually a fibroma in which tumour removal leads to complete resolution of pleural and peritoneal effusions.

Case history: A 52-year-old mother of two children presented with progressive dyspnoea, abdominal distention and weight loss for one-month duration. On physical examination, there was dullness to percussion with decreased breath sounds in the right lung field. Abdominal examination revealed shifting dullness and a palpable mass reaching above the umbilicus. On pelvic examination, a hard nodular mass was felt. Ultrasonography of the abdomen and pelvis revealed a moderate amount of ascites, the uterus appeared normal and a right adnexal solid mass of 15 × 12 cm was found. Computerized tomography confirmed large intra abdominal mass with cystic and solid component likely to be arising from right ovary, possibly malignant without evidence of metastasis. The chest X-ray revealed the presence of a massive right-sided and pleural effusion. A complete haematological study was carried out, with results within normal parameters except mild thrombocytopenia. Serum CA 125 level was 206 U/ml. Beta hCG, LDH, and AFP were normal. Paracentesis and thoracocentesis were both negative for malignancy. Findings on laparotomy were :300ml of peritoneal fluid, at removal of the right ovary measuring 18x20cm with calcified areas. The uterus and left adnexa appeared normal. There was no palpable pelvic or paraaortic adenopathy; the liver, diaphragm, bowel, and omentum were free of disease. Total abdominal hysterectomy, bilateral salpingo-oophorectomy with omentectomy were performed. The Cytology of peritoneal fluid was negative for malignancy. Pathological examination of the specimen showed a benign fibroma of the right ovary. Postoperative progress was favourable, with remission of the hydrothorax by the seventh postoperative day. CA125 level came down to normal after one month.

Discussion: The diagnosis of Meig syndrome is a clinical challenge. A small percentage of patients presenting with a pelvic mass, ascites and pleural effusion with elevated serum CA125 levels will have a benign condition, therefore it is mandatory that surgery is offered followed by histological confirmation.

EP81

Determinants of late antenatal clinic registration

Thanuya M¹, Kishokumar T², Ruwanpathirana SA³,
Thuvathippan R⁴, Hamza AH³

¹District General Hospital, Kilinochchi.

²Colombo South Teaching Hospital.

³De Soysa Hospital for Women, Colombo.

⁴District General Hospital, Matara, Sri Lanka.

Introduction: Early antenatal booking preferably in the first trimester of pregnancy is very important as it enables early detection and prevention of possible complications of pregnancy and to confirm the date of delivery; thus, contributing to the reduction of maternal and perinatal morbidity and mortality. The World Health Organization (WHO) recommends that pregnant women in developing countries should seek antenatal care within the first 16 weeks of pregnancy.

Method: The study was conducted between from 2017 to April 2017 among women who booked after 16 weeks at De Soysa Maternity Hospital. We collected data for the reasons for late booking at hospital.

Results: Fifty-one women participated in the study. Among these women 29.4% (15/51) were teenagers. 47% were primigravidae. The majority of the participants (82%) had education above ordinary level and only 21.3% were working women. Their monthly income was above 40,000 rupees. The mean POA at registration in the hospital was 20.9 (±4.6) weeks and booking at MOH was 10+4 weeks. The results showed that 39.6% (21/53) of the study participants did not know the exact gestation age at which a pregnant woman should start attending antenatal care. Only 33.96% women took preconceptional folic acid. Reasons for late booking were, social problems in 17.6%, problems in getting leave from work in 11.7%, lack of knowledge in 11.7%, affected by vomiting in 11.7%, distance from hospital in 11.7%, ignorance in 17.6% and late confirmation of pregnancy in 17.6%.

Conclusion: There is a need to enhance public awareness of early booking in the routine health education. Empowerment of women through quality education and gainful employment are also major factors that would contribute significantly to address the issue.

EP82

A case report of pelvic organ prolapse complicated with concurrent verrucous carcinoma of the vagina.

Gunasingha ADHN, Sandaruwan NKTS, Attanayake MMKN,
Perera YAG.

Castle Street Hospital for Women, Colombo 08.

Background: Primary vaginal cancer accounts for 1-2% of all gynaecological malignancies and its occurrence in association with pelvic organ prolapse is extremely rare. Over 90% are squamous carcinoma with peak incidence between 60-70 years. It commonly involves the posterior upper third of the vagina. Verrucous carcinoma is a histological variant of squamous cell carcinoma rarely encountered in female genital tract though common in vulval skin and mucosal surfaces of oral cavity and larynx.

Case: A 78-year-old mother of 6 children presented with a lump at vulva for 15 years and blood stained offensive vaginal discharge for 3 months. A ring pessary had been inserted which was issuing on inspection. Examination revealed a POP-Q stage 4 pelvic organ prolapse. Despite clinically normal cervix, a

6x5cm size hard ulcerated lesion was noted on the prolapsed right upper vaginal wall which had invaded and compressed the underlying tissues creating characteristic pushing margins in contrast to usual exophytic lesion seen in a typical squamous carcinoma. Biopsy of the lesion disclosed a squamous carcinoma. She underwent a radical vaginal hysterectomy with excision of the upper 2/3 of the vagina. Histopathology revealed a verrucous type well differentiated squamous cell carcinoma of the vagina with no involvement of the uterus and the cervix. She was periodically assessed without further treatment and was asymptomatic and had no recurrence during 6 months of follow-up.

Conclusion: High grade vaginal intraepithelial neoplasia possibly associated with HPV infection acts as a premalignant lesion for vaginal squamous carcinoma. Menopause induced vaginal atrophy, urine leakage and use of diapers and pessary use lead to chronic vaginal irritation and inflammatory response in patients having a prolapse which in turn may induce malignant changes. Therefore vaginal ulcers in the context of pelvic organ prolapse and pessary usage need careful attention due to malignant potential. In the presence of alarming signs such as active bleeding, foul smell or solid mass, preoperative biopsies should be obtained.

Treatment planning is a challenge in patients having large pelvic organ prolapse with vaginal cancer due associated marked cystocele and enterocele/rectocele which are more vulnerable to radiation effects. Surgery with or without radiotherapy is the optimum treatment for pelvic organ prolapse with early-stage vaginal squamous cell carcinoma. The prognosis of verrucous type squamous cell carcinoma of vagina is better than that of other sub types of vaginal squamous carcinoma.

EP83

Knowledge of post-partum family planning amongst health care workers at a tertiary care hospital

Dissanayake AD, Perera WME, Sameera RMIJ, Ranathunga KGIS, Ratnasiri UDP.
Castle Street Hospital for Women, Colombo.

Method: A descriptive cross sectional study was conducted at Castle Street Hospital for Women on PFP. A pre tested questionnaire on PFP methods was distributed amongst 45 doctors, nurses and midwives.

Results: 16 (35.6%) doctors, 21 (42.2%) nurses and 8 (17.8%) midwives participated. The mean period of obstetric experience was 7.83 years. Correct inter pregnancy interval was known by only 20 (44.4%). Return of fertility following pregnancy in non breast feeding and exclusively breast feeding women were known by 5 (11.1%) and 18 (40%). Majority 75.6% considered counselling on PFP can be done antenatal and postnatal. Indications for a pregnancy test was correctly identified by 14 (31.1%). Failure rates for post placental intrauterine device (IUD), sub dermal implants, injectables, combined pill, barrier methods, female sterilization, male sterilization and lactational amenorrhoea method was known by 34(75.6%), 36(80%), 30(66.7%), 36(80%), 22(48.9%), 35 (75.6%), 29 (64.4%) and 18 (40%) respectively. The correct timing of initiating each method mentioned above was known by 40 (88.9%), 35 (77.8%), 20 (44.4%), 15 (33.3%), 18 (40%), 33(73.3%), 15 (33.2%), 37 (82.2%) and 26 (57.8%) respectively.

e-Poster Presentations

Regarding Post placental IUD 22 (48.9%) and 11 (24.4%) were not aware of postpartum haemorrhage and chorio amnionitis as contraindications for insertion. Lower perforation risk and higher expulsion risk compared to interval insertion was known by 35 (77.8%) and 21 (46.7%). Side effects of injectable progestogens and oral contraceptive was known by 32(71.1%) and 36(80%). 39 (86.7%) and 33(73.3%) knew that male and female barrier methods were protective for sexually transmitted infections. 26(57.8%) and 23(51.1%) were aware of use of IUDs and levonorgestrel pills as emergency contraceptive methods postpartum.

Main obstacles for family planning were lack of knowledge 41 (91.1%), lack of counselling technique 38 (84.4%), limited time 31 (68.9%). Spouses consent was considered mandatory by 16 (35.26%) for a family planning method.

Conclusion: Knowledge on PFP is poor amongst health care workers. Regular education and audit on PFP is recommended.

EP84

A case of peripartum cardiomyopathy complicated with schizo affective disorder

Rubasinghe AJ, Pathiraja RP, Jeewantha RD, Weerasinghe AM, Herath CMB, Jayawardane MAMM, Silva KCDP.

Department of Obstetrics and Gynaecology, Colombo South Teaching Hospital, Kalubowila.

Background: Peripartum cardiomyopathy is a rare form of non-ischaemic dilated cardiomyopathy with marked left ventricular dysfunction, which occurs in the absence of an identifiable cause or recognizable heart disease prior to the last month of pregnancy. It is associated with a very high mortality rate and treatment of it is mainly supportive. We present a case of peripartum cardiomyopathy whose management was further complicated due to coexisting psychotic disorder.

Case: A 29-year-old primigravida was transferred to our unit with severe shortness of breath for one-day duration and cough for four days' duration at period of gestation of 36 weeks. She was in remission of a schizoaffective disorder while on olanzapine and carbamazepine for past three years.

Clinical examination revealed severe tachycardia, tachypnoea. Echocardiogram revealed that ejection fraction <35%. C-Reactive protein was 101mg/L. She was diagnosed to have peripartum cardiomyopathy and a lower respiratory tract infection.

Live non asphyxiated Baby was delivered by emergency caesarean section after initial resuscitation. Post-partum she received intensive care and diuretics, anticoagulation, beta blockers, angiotensin converting enzyme inhibitors, digoxin, bromocriptine, antibacterials, oseltamivir and Oxygen. Her antipsychotic medications were withholding due to their cardiovascular side effects.

During the post-partum period gradually she developed hallucinations, delusions, aggressive behaviour and refusal of oral feeds. At post-partum day nine she was started on oral aripiprazole which was followed by olanzapine and clonazepam but symptoms worsened. She was restrained and intramuscular Midazolam was used because of aggressive behaviour. She was started on sodium valproate and diazepam. Her condition improved steadily and on day 28 she was transferred back, after arranging follow up care.

Discussion: Management of this patient was difficult as she had a complex clinical picture. Ideally she should have received

electroconvulsive therapy or non-parenteral antipsychotics which we couldn't offer due to her persistently low cardiac function. (Ejection fraction was <35% in two post-partum echocardiograms.) Hence we gradually titrated antipsychotics while monitoring cardiac status. Treatment of cardiomyopathy was difficult as she continuously refused oral medication and resisted monitoring. High dependency care was given. High protein diet via nasogastric tube was given. Intravenous fluid and diuretics were used judiciously to avoid complications of hypo or hypervolemia. Multidisciplinary care with inputs from psychiatrist, cardiologist, anaesthetist and haematologist we could offer her a tailor made treatment which lead to a better outcome. Bromocriptine might have contributed positively for the outcome.

EP85

Audit on management of shoulder dystocia

Prasanga DPGGM, Pallemulla LC, Niranga KKG,
Athulathmudali SR, Chandrasinghe SK.
Castle Street Hospital for Women, Colombo 08, Sri Lanka.

Background: Shoulder dystocia (SD) is defined as vaginal cephalic delivery that requires additional obstetric manoeuvres to deliver the fetus after the head has been delivered, where gentle traction has failed. Objective diagnosis is by prolongation of head to body delivery time of > 60 seconds. This is an obstetric emergency, where anterior or less commonly the posterior fetal shoulder impacts on the maternal symphysis, or sacral promontory. Incidence is 0.58% - 0.7%.

Objective: To assess the knowledge of shoulder dystocia and management among medical officers, medical students, nursing and midwifery staff.

Methodology: The study included 35 participants from ward 03 & 04, Castle Street Hospital for Women. Knowledge was assessed by a multiple choice questionnaire. SD drill was conducted on 26/10/2016, and same questionnaire was given before and after the drill.

Results: Of the 35, 37% were able to define SD before the drill, and it improved to 82% after the drill. 60% knew how to diagnose SD before the drill and it was 85% after the drill. Knowledge of risk factors before and after the drill was 68% & 97% respectively. 17% knew about first line manoeuvres before the drill and it was 88% after the drill. 11% knew about second line manoeuvres prior to drill and it was 62% after the drill. Knowledge about third line manoeuvres was 17% and 85% before and after the drill. Preandpost drill knowledge about overall management of SD was 31% and 74%. Post-delivery care was given correctly by 68% prior to and 98% after the drill.

Conclusion: General knowledge of managing SD among the ward staff was insufficient. Therefore, all maternity staff should participate in shoulder dystocia training at least annually.

EP86

Uterus saving surgery without blood loss in placenta praevia and placenta percreta

Vasudeva Panicker TN.
Panicker's Hospital, Kodungallur, Thrissur, Kerala.

Introduction: In cases of major degree of placenta praevia accreta or percreta or ruptured uterus, haemostatic suturing of the uterus can be done within one to two minutes using this special instrument. Thus uterus saving surgery can be done very

safely without any blood loss.

Objective: To find out a safe and sure technique to save the uterus in cases of major degree of placenta praevia or placenta percreta.

Materials & methods: Introducing two instruments invented by the author.

1. Super Bipolar Forceps (PSB) - This is a brake through invention in electro surgery. With this any tissue or vessel can be safely and effectively coagulated and divided.

2. Universal Ligation Forceps (PUL) - This can be used as a suture carrier, tissue retractor and aneurism needle.

Procedure: During caesarean section, after delivery of the baby exteriorize the uterus keeping the placenta in situ. Two pieces of 50cm of No.1 vicryl is held with the tip of PUL forceps. UV fold is opened and the bladder pushed down. The PUL forceps with vicryl is pierced from anterior to posterior side at the centre of the cervix just above the bladder. Uterus turned anteriorly and the tip of the forceps can be seen piercing through the posterior side. Tip of the forceps opened and threads pulled out- one to the left side and one to the right side and tied on either side tightly. This will completely occlude all blood supply to the uterus. Now dissect out the infiltrating placenta completely. Rest of the infiltrated placental bits in the uterus is coagulated thoroughly with super bipolar forceps. Remove the haemostatic suture and check for any bleeding. Close the uterine incision and replace the uterus and close the abdomen. If there is any further bleeding Panicker's PPH suction cannula can be used to stop the bleeding with absolute success.

Result: During the last four year period, twelve cases were done. All cases went home without any complications. After six months all cases were subjected to ultra sound scanning and found normal.

Conclusion: This is a very useful procedure to save the uterus and also to save the life of the patient in severe bleeding. In situations where caesarean hysterectomy is absolutely indicated, then the haemostatic suturing can be done first and the hysterectomy can be done without blood loss.

EP87

A case report of Pheochromocytoma and neurofibromatosis during pregnancy

Samarakkody SN, Sirisena PLA, Raguraman S, Perera MAK.
De Soysa Hospital for Women, Colombo.

Objective: To describe a patient diagnosed with Pheochromocytoma in the third trimester of pregnancy and discuss the multidisciplinary team management.

Background: Pheochromocytoma is a rare neuro endocrine tumour with a highly variable clinical presentation. Its prevalence in patients with hypertension is only 0.1– 0.6% and 0.002% of pregnancies. Most common presentations are episodes of headache, sweating, palpitation, and hypertension. Due to the effects of catecholamine secreted, potentially lethal cardiovascular complication can occur. Approximately 24% of these tumours are inherited, associated with neurofibromatosis type 1 and Von Hippel-Lindau syndrome, or occur in cases of multiple endocrine neoplasia type 2. Pheochromocytoma can cause maternal and fetal deaths in up to 50% of the cases if undiagnosed. In 20% of the cases, diagnosis is not made during pregnancy.

Case: A 34-year-old diagnosed patient with Neurofibromatosis, weighing 35 kg and in her third pregnancy at 35 weeks of

gestation, who had two previous uncomplicated pregnancies with normal vaginal deliveries presented with on and off headaches, palpitations, vomiting suggestive of hyperadrenergic spells for five years. The blood pressure values were normal until the time of surgery. The Ultrasound scan revealed a large left supra renal mass 7.5x8.0cm in size and the fetal assessment showed evidence of growth restriction. Magnetic resonance imaging demonstrated a well-defined left sided supra renal mass. 24 hours urinary metanephrine excretion was 5.4mg/24hours (normal up to 1 mg/24hours). Short Synacthen test, Parathyroid hormone, Serum phosphate and Calcium levels were evaluated to find association with multiple endocrine neoplasia and all were found to be in normal range. Echocardiogram was normal. A multi disciplinary team including the endocrinologist, surgeon, anaesthetist, neonatologist and obstetric team planned for elective caesarean section and tumour removal surgery at the same time at 37 weeks of gestation. Alpha and beta blockades were started prior to surgery. A healthy baby delivered and open adrenalectomy along with removal of the tumour was done.

Conclusion: The main objectives in managing Pheochromocytoma during the pregnancy are early diagnosis, usage of alpha and beta blockers, and avoidance of hypertensive crisis during delivery and surgery. This case illustrates that with prompt diagnosis, advanced methods of tumour localization and multi-disciplinary team management, Pheochromocytoma in pregnancy can be treated successfully. Thus, it is important that obstetricians are aware of this rare possibility during pregnancy.

EP88

Assessment of adherence to venous thromboprophylaxis during pregnancy and puerperium: A clinical audit

Herath HRBM, Williams HSA, Costa YJ, Moratuwagama D, Wijesinghe PS.
North Colombo Teaching Hospital, Ragama.

Introduction: Thromboembolism is a leading cause of maternal deaths world wide. Thromboembolic risk increases due to alteration of haemostatic mechanisms during pregnancy due to increased production of procoagulant material approaching delivery. Since the introduction of guidelines on thromboprophylaxis for women in 1995 by the Royal College of Obstetricians and Gynaecologists (RCOG), there has been a reduction in maternal deaths from pulmonary embolism in the UK. In 2014, out of 112 maternal deaths in Sri Lanka two were due to thromboembolism. An acceptable standard would be to provide thromboprophylaxis to at risk women in pregnancy. Our objective was to assess the use of thromboprophylaxis and adherence to a standard in the antenatal and postpartum setting.

Method: A clinical audit which assessed the risk factors for thromboprophylaxis in 100 pregnant women was conducted using a questionnaire based on the basic risk assessment score of the RCOG guidelines. Women eligible for postpartum thromboprophylaxis in the presence of ≥ 2 risk factors and for antenatal thromboprophylaxis from first trimester if they have ≥ 4 and from 28 weeks for ≥ 3 risk factors.

Results: Although 2% and 20% needed antenatal and postpartum thromboprophylaxis respectively, none of them received therapy. Elective caesarean section (n=28), pre-term birth <37 weeks (n=14), caesarean section in labour (n=8), and multiple pregnancy (n=5) were the commonest obstetric risk factors. Seventeen women had 2 and 3 women had 3 risk factors. Age >35 (n=12), parity >3 (n=11), obesity (n=5), gross varicose

veins (n=1) were the identified pre-existing risk factors warranting antenatal thromboprophylaxis. Two women had > 3 risk factors. Infection, minor surgery and hyperemesis were the transient risk factors identified. None of the women suffered venous thromboembolism during their hospital stay.

Conclusion: None of the women at risk received either antenatal or postpartum thromboprophylaxis. A re-audit is planned after assessing the venous thromboembolism risk in the centre with the aim of implementing postpartum thromboprophylaxis in view of our clinical audit findings.

EP89

Knowledge on menopause and its management among medical officers of O&G units in a tertiary care centre

Gunathilaka SNMPK, Lanerolle S, Jayalath JAVS, Siriwardane DS, Rasanjalee ED, Sumanathissa RPJ, Hettiarachchi HNT, Kodithuwakku KASUA.

Castle Street Hospital for Women, Sri Lanka.

Introduction: Menopause is considered as the permanent cessation of menstruation causing symptoms which affect the quality of life of women. As most women spend a significant part of their life beyond menopause, the knowledge of medical officers on managing it, is vital. We conducted an audit to assess the knowledge of medical officers ranging from senior registrars to senior House Officers at Castle Street Hospital for Women, Colombo.

Objectives: To find out the knowledge of medical officers in Gynaecology units of Castle Street Hospital for Women on menopause and its management. Audit standards: NICE guideline on Menopause: Diagnosis and management – 12 November 2015.

Design: A pre-prepared questionnaire was given containing 45 MCQs based on the NICE guideline. The questions were in 05 different categories, 1. Physiology and diagnosis of menopause 2. Lifestyle modifications to alleviate the symptoms 3. Use of hormone replacement therapy (Indications, contraindications, types) 4. Adverse effects of HRT 5. Available HRT in Sri Lanka. $\geq 75\%$ score in each category was considered as satisfactory, where as $< 50\%$ was considered unsatisfactory.

Results: There were 44 participants. Among them only 12 had scored $\geq 75\%$ in all the components and 2 had scored less than 50%. Of the total, 30, 18, 16, 18, 22 had satisfactory knowledge and 2, 2, 2, 3, 10 had unsatisfactory knowledge respectively on the different categories mentioned above. **Conclusion:** The knowledge of care providers on hormone replacement therapy should be enhanced mainly by paying more attention to the available preparations.

EP90

Patterns of seeking religious blessings among sick women

Randeniya C, Madumali HGH, Aloysious B.
Department of Obstetrics and Gynaecology, Faculty of Medicine, Colombo.

Objectives: To understand the behavior of women who seek religious help when they are ill and the type of religious help

they seek.

Design setting and methods: A descriptive observational study conducted through pretested interviewer administered questionnaire among women admitted to Professorial Obstetric Unit Colombo.

Results: The Study included 40 participants of which 10 participants from each religion observed in Sri Lanka (Buddhism, Catholicism, Hinduism, Islam). Of them 31 believed their religion strongly while 9 of them believed in their religion. 18 were engaged in religious activities (including praying, observing five precepts) 2 or more times a day, 18 daily 1 weekly while 3 infrequently. 29 said that they were certain to get well after the religious activities while 11 said their anxiety is relieved after the religious activity.

Conclusion: When women fall ill it is a natural phenomenon to strive to get well soon. For this purpose, in addition to medicine they seek their religious blessings. These are areas beyond the control of human beings and people will reason out natural healing, divine intervention etc. as explanations. People who do not believe may say nature nurtured and environmental pollution created by man caused the disease.

Recommendations: It is highly recommended that clergy belonging to all religions visit their sick followers to offer blessings and help the sick engage in their religious practices.

EP91

A case report of uterine rupture in an unscarred uterus before labour

Kalaimaran P, Kandauda C, Wijewardana G.

Teaching Hospital, Peradeniya.

Background: Rupture of gravid uterus is an obstetric emergency and commonly occurs during labour in scarred uterus. It rarely occurs in unscarred uterus before labour and the risk factors are Cephalo pelvic disproportion, fetal macrosomia, malpresentation, dystocia associated with augmentation, grand multiparity, short inter-pregnancy interval, uterine over distension, abnormal placentation, and uterine abnormalities. Uterine rupture should be strongly suspected when constant abdominal pain and signs of intra-abdominal haemorrhage are present. Other clinical manifestations include cessation of uterine contractions, maternal tachycardia, hypotension, uterine tenderness, hypovolemic shock and change in uterine shape. Fetal bradycardia is the most common clinical manifestation of uterine rupture. Delivery of the baby and repair of uterus or hysterectomy are the definitive management. Delayed surgical intervention may lead to high incidence of maternal and fetal mortality. We report a case of uterine rupture in unscarred uterus.

Case: A 27-year-old pregnant woman, with one previous vaginal delivery, at 34 weeks of gestation complained of lower abdominal pain for 1-day duration. On admission, she was hemodynamically stable without abdominal tenderness. Initial CTG showed no uterine activity while ultrasonography (USS) revealed a single live fetus, fundal placenta and amniotic fluid index of 22. Cause for her abdominal pain was not obvious in the scan. Four hours later, intensity of pain increased with vomiting and sweating. She was haemodynamically unstable and repeat USS concluded free fluid in the abdomen with fetus in amniotic sac within the uterine cavity without visible heartbeat. Suspecting uterine rupture, emergency laparotomy

e-Poster Presentations

was done. During laparotomy, significant haemoperitoneum was noted and further inspection uncovered a small rupture in the posterior lower segment. Dead fetus was delivered and rupture was repaired. Hayman compression suture was applied as she had uterine atony in spite of oxytocin infusion.

Conclusion: Uterine rupture is a rare event in an unscarred uterus before labour. It carries high risk of mortality for both mother and fetus which could be eliminated under conditions of expert obstetric care in an appropriate setting. Fetal bradycardia is the commonest finding with variable maternal manifestations. Despite known precipitating factors, uterine rupture should be suspected in any pregnant woman with constant abdominal pain with or without labour. Timely diagnosis and early surgical intervention will reduce the morbidity and mortality.

EP92

A case report: Vitamin A deficiency in pregnancy

Rathigashini R¹, Bambaranda BG¹, Wijesinghe RD², Senanayake HM², Wijeyaratne C²

¹De Soysa Hospital for Women, Sri Lanka.

²Department of Obstetrics and Gynaecology, University of Colombo, Sri Lanka.

Background: Causes of exocrine pancreatic insufficiency include chronic pancreatitis, pancreatectomy and pancreatic duct obstruction. Pancreatic enzyme replacement therapy (PERT) and supplementation of vitamins are the standard Treatment. Vitamin A deficiency complicating pregnancy due to exocrine pancreatic failure has not been previously reported.

Case report: A 26 year primigravida, at POA of 6 weeks, who has undergone Whipple's operation for benign pancreatic tumour 10 years back, presented to the ophthalmology department for management of severe vitamin A deficiency with Bitot spots and xerophthalmia. Poor compliance of pancreatic enzymes and vitamin supplements following surgery was noted. She developed low grade fever and dry cough suggestive of lower respiratory infection. She became very ill with bilateral coarse crepitations indicative of broncho-pneumonia. But her symptoms worsened over time and she went into heart failure secondary to infection. Subsequently she miscarried. She was managed with diuretics and broad spectrum antibiotics. Her oral pancreatic enzyme supplement (pancreatic lipase 3000IU three times daily) and oral vitamin supplements were continued. Parenteral vitamin A dose was reduced to protect from possible fetotoxicity. She recovered completely.

Conclusion: Vitamin A deficiency is not common in Sri Lanka. This report depicts how Vitamin A is essential for the mother and development of the fetus. Vitamin A is important for cell biology, fetal organogenesis, skeletal growth, maternal vision and optimum function of the immunologic defences against infection. WHO recommends a daily intake of 800µg retinole equivalents vitamin A during pregnancy, which cannot be achieved only through diet. Recommended doses of vitamin A supplements are generally well tolerated by pregnant women. Fetal toxicity must be avoided. We highlight the practical issues of inability to monitor blood retinol levels to prevent adverse outcomes of possible overdose during pregnancy due to resource limitations.

EP93

A patient with six consecutive hydatidiform moles

Jayalath JAVS, Lanerolle S, Gunathilake SNMPK, Siriwardhane

DS.

Castle street hospital for women, Colombo, Sri Lanka.

Introduction: Hydatidiform mole is a form of gestational trophoblastic disease and it is characterized by atypical hyperplastic trophoblasts with hydropic villi. Recurrent Hydatidiform moles are rare and defined as 3 or more Hydatidiform moles and are seen in 1-2 % of cases. It has been found that NLRP7 and KHDC3L gene mutations are associated with recurrent molar pregnancies with autosomal recessive inheritance. We present a case of six consecutive molar pregnancies.

Caseport: A 30-year-old patient presented with vaginal bleeding following period of amenorrhoea of 8 weeks. Urine HCG was positive and transvaginal ultrasound scan revealed a hydatidiform molar pregnancy. Her blood group was B positive. Her serum beta hCG level was 10,200,768iu/l which is also suggestive of hydatidiform mole. She had a past history of 5 consecutive molar pregnancies all confirmed by histology. She underwent suction evacuation and products were sent for histology. Discharge plan was to review with histology report in 2 weeks and further follow up with 2 weekly serum Beta hCG until it became negative. Histopathology report revealed complete hydatidiform mole. Chemotherapy was not offered. Patient was referred for genetic counselling. Karyotyping of both the woman and her partner were normal.

Conclusion: Since recurrent hydatidiform moles are associated with genetic inheritance, genetic analysis and counselling of the couple is essential in managing these patients. Donor Oocyte with In-Vitro Fertilization is the only option for patients with recurrent molar pregnancies due to biparental molar pregnancies.

EP95

A rare case report of ovarian hyper thecosis causing hyperandrogenism in a post menopausal woman with normal imaging

Thuvathippan R¹, Kaluarachchi A³, Gihan MC², Rishard MRM³, Samsudeen F¹, Gankanda W¹.

¹Obstetrics and Gynaecology Professorial Unit, De Soysa Maternity Hospital, Colombo.

²Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Peradeniya.

³Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo.

Background: Postmenopausal hyperandrogenism is a state of relative or absolute androgen excess originating from either the adrenal glands or the ovaries, which leads to clinical manifestations. Ovarian hyperthecosis accounts for most of the cases of hyperandrogenaemia in postmenopausal women. It is generally a benign tumour where the presence of luteinized theca cell nests in the ovarian stroma are noted. Ovarian hyperthecosis is typically associated with severe hyperandrogenism and virilisation.

Case report: A 62-year-old postmenopausal woman, presented with a four-year history of virilisation with alopecia and hirsutism. She was obese and had male pattern of alopecia, increased muscle mass and clitoromegaly. Initial laboratory works up revealed a high total testosterone (6.3 nmol/L) and normal DHEAS level (57.6 µg/dL). The rest of the hormonal profile was within normal limits. Adrenaline secreting tumours were ruled out by ultrasound and CT scans. Although transvaginal scan and diagnostic laparoscopy revealed normal looking ovaries bilateral salpingo oophorectomy was performed

with the suspicion of androgen secreting tumour of ovary. The histology showed bilateral ovarian stromal hyperthecosis with out evidence of malignancy. Postoperatively serum testosterone level was 0.83 nmol/L with significant clinical improvement.

Discussion: Hyperandrogenism in women is a common and distressing condition. Postmenopausal hyperandrogenism can result from numerous causes ranging from normal physiologic changes to ovarian or rarely adrenaltumours. Ovarian hyperthecosis accounts for most of the cases of hyperandrogenaemia in postmenopausal women and typically associated with more severe hyperandrogenism and virilisation. Patients with this condition typically have enlarged ovaries beyond the expected limits in postmenopausal women visualized on imaging. Our patient was found to have ovarian stromal hyperthecosis which is rare and seen mostly in postmenopausal women despite normal radiologic studies.

EP96

An audit on early detection and management of fetal growth restriction

Basnayake BMSB¹, Kandauda IC², Jayasinghe JP¹.

¹Professorial Obstetrics and Gynaecology Unit, Teaching Hospital, Peradeniya.

²Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Peradeniya, Sri Lanka.

Objective: To identify the number of FGRs detected, the use and the effectiveness of the unit protocol in early detection, and management of FGR in the antenatal period.

Methods: The audit was carried out in the postnatal ward of the Professorial Obstetrics and Gynaecology unit and was done to evaluate the proper use of unit policy on detection of FGR in the antenatal period. 60 term (POA37+/52) new borns, born in February and March, 2017 and who had a birth weight of less than 2550g were taken into the audit. The relevant details were entered in the pre designed information sheet and details were taken from BHT, Pregnancy Record and Clinical records of the mother.

Results: In the 60 selected women, 21.7% had a height of <145 cm, 33.3% had a BMI of less than 18.5 kg/m² and 25.0% had a Haemoglobin concentration of <10.5 g/dl at booking visit. All had at least a single visit to MOH. 45% had followed up only at government clinic while 31.7% were followed up only in the private sector. 15.0% did not have a proper Estimated Fetal Weight after POA 37+/52. Of 60 new-borns, 26.7% were detected as FGR. Of them, 81.3% have been induced early (at POA37/52). 53.8% have been induced with Prostaglandin E2, while in 18.8% Foley catheter was used. 12.5% underwent Elective caesarean sections, 6.3% underwent emergency caesarean section due to reverse diastolic flow. 16.7% have been admitted to Special Care Neonatology Unit (SCNU). Out of them 70.0% were undiagnosed as FGR and admitted due to complications of FGR.

Conclusions and Recommendations: Majority of the FGRs are missed in the antenatal period and the proper management of FGR is lacking in a small number of patients. Unit protocols must be followed for the detection of FGR in the antenatal clinic. It is recommended to develop a national protocol for detection and management of FGR. This has to be conveyed to the medical officers and the effectiveness of the implementation has to be reassessed.

EP97

Audit on systematic documentation of cardio tocogram at District general hospital Kilinochchi

Thanuya M, Thuvarathipan R, Bhabu B, Sivomiya S, Elankumaran V, Sanjeevan K.
District General Hospital, Kilinochchi.

Introduction: The assessment of fetal well-being during labour is a component of intrapartum care provided to women. Intrapartum fetal surveillance, aims to improve fetal outcome by identifying fetuses with hypoxic acidaemia, and has the potential to promote fetal health and improve neonatal status at birth. However, electronic fetal monitoring (EFM) as a stand-alone tool is ineffective in avoiding preventable adverse outcomes. It is effective only when used in accordance with published standards and guidelines and when appropriate timely intervention is based on that interpretation. Systematic documentation of CTG is mandatory to interpret it correctly in a setting where its availability is limited and additional tests such as fetal scalp blood sampling are not available. The objective was to audit the degree of systematic documentation of CTGs in District General Hospital, Kilinochchi.

Method: Intrapartum CTGs (150) were randomly selected during the month of May 2017. Documentation of the name of the mother, BHT number, date and time, maternal pulse rate, features of the CTG (basal heart rate, variability, accelerations/decelerations), category of the CTG (Normal, suspicious, Pathological), and signature of the medical officer were analyzed. 100% documentation was considered as the audit standard.

Results: Name was documented in 96% of CTGs but the BHT number was included only in 76%. Date was documented in 95% and time was mentioned in 92%. None of the CTGs mentioned maternal heart rate. Documentation of the features of CTG, category of CTG were achieved in all CTGs studied. The signature of the medical officer was presented in 74%. All CTGs have been interpreted correctly.

Conclusion: The features and category of CTG were achieved in 100% as there was a printed format to be filled at the time of interpreting the CTG, which was attached to the CTG. Maternal heart rate was not mentioned in any of the CTGs. Date, time and signature of the interpreting medical officer was not upto the standard value. The medical officers and staff were educated on correct documentation. A re-audit is planned in three months.

EP98

A case report of successful outcome in primary pulmonary hypertension in pregnancy

Bambaranda BGIK¹, Kaluarachchi A², Rishard M², Gihan, MC¹, Fahim M¹.

¹De Soyza Hospital for Women, Colombo.

²Department of Obstetrics and Gynaecology, University of Colombo, Sri Lanka.

Background: Primary pulmonary hypertension is defined as a sustained elevation of pulmonary artery pressure (mean greater than 25mmHg at rest) in the absence of a demonstrable cause. Pregnancy is considered contraindicated in such a situation (WHO class IV) as physiological changes in pregnancy and puerperium carry a high maternal mortality rate of 17 to 30%. We describe a case of a severe primary pulmonary hypertension which was diagnosed during pregnancy and

managed successfully.

Case report: A 27-year-old primigravida presented with worsening dyspnea on mild exertion and palpitations at 25 weeks of POA. On examination she was found to have a pansystolic murmur at tricuspid area with an oxygensaturation of 96% on air. 2D echo cardiogram revealed TRPG of 100 mmHg with dilated right heart without septal paradox. (Although right heart catheterization is the gold standard for diagnosis it is still not practiced routinely for diagnosis of pulmonary hypertension during pregnancy) In the absence of any possible causative factors, diagnosis of primary pulmonary hypertension was made. Multidisciplinary team decided to continue the pregnancy until the fetal viability. She was managed in the High Dependency Unit and continuous supportive care was provided. At the POA of 29 weeks she developed progressive dyspnea and her Oxygen saturation started to drop. These prompted the team to terminate the pregnancy. She underwent caesarean section under general anaesthesia and delivered a baby weighing 1200g. During the post-partum period she developed oxygen dependency and difficult weaning off but she recovered fully with supportive care in the ICU.

Conclusion: Although Pulmonary Hypertension is associated with a significant risk of maternal death, multidisciplinary team input, HDU care and careful post-delivery care could improve the outcome. Fatality rate is high in women with severe pulmonary hypertension even in the developed world. This could be even higher in resource poor countries. However, with better understanding of pathophysiology, use of novel therapeutic agents, careful management decisions tailor made to patient's clinical background and usage of resources and skills appropriately can improve the outcome of women with severe pulmonary hypertension.

EP100

A case report of heterotopic ovarian pregnancy with intrauterine twin pregnancy

Fahim SM, Rishard MRM, Gankanda, WI, Gihan MC, Bambaranda BGIK, Thuvaratheepan R, Kaluarachchi A.
De Soyza Hospital for Women, Colombo, Sri Lanka.

Introduction: Heterotopic pregnancy (HP) is defined as presence of an intrauterine (IUP) and an ectopic pregnancy (EP) simultaneously. Commonly the EP is within the fallopian tube and rarely found in the cervix or ovary. Ovarian Eps are rare, accounting for only 1–3% among all ectopic pregnancies. The estimated incidence of HP is 1/30,000. Ovarian HP comprises only 2% out of all HPs. In the last few decades there has been a significant rise of EPs and a subsequent increase of HP due to several factors including higher incidence of pelvic inflammatory disease (PID) and use of assisted reproductive technologies (ARTs). For patients who have been treated with ARTs an incidence of 1/100 has been reported, while it is extremely rare among women who conceive naturally. We did not find reports of heterotopic ovarian pregnancy with intrauterine twin pregnancy in the literature. We report a case of ovarian ectopic pregnancy with intrauterine twin pregnancy.

Case: A 32-year-old woman in her fourth pregnancy with two first trimester miscarriages and one tubal ectopic pregnancy resulting in salpingectomy presented with lower abdominal pain at fifth week of POA following intrauterine insemination. Initial transvaginal scan (TVS) showed no IUP with a 2x3cm sized heterogeneous mass in left adnexa and small amount of free fluid. Doubling of β -hCG in 48 hours was noted. Since TVS did not

show an IUP a diagnostic laparoscopy was performed. Small amount of clotted blood in peritoneal cavity and the 2x2cm sized dark brown lesion suggestive of ovarian ectopic pregnancy were noted. It was enucleated using monopolar hook and aqua dissection using irrigation. Initial bleeding was controlled with bipolar diathermy. Repeat TVS revealed an early intrauterine twin pregnancy. Histology was consistent with an ovarian ectopic pregnancy and subsequent TVS confirmed Dichorionic Diamniotic twins.

Conclusion: Diagnosis and management of HP is a dilemma for the Gynaecologist. However, applying basic principles when dealing with unusual presentations can help to avoid disastrous outcome. High index of suspicion, judicious use of biochemical markers, imaging modalities and minimally invasive surgical methods can minimize maternal morbidity and preserve the developing of IUP. Avoiding uterine manipulation in cases where possibility of simultaneous IUP is vital.

EP102

A case report of synchronous endometrioid carcinoma of uterus and ovaries.

Gunasingha ADHN, Sandaruwan, NKTS, Attanayake MMKN, Perera YAG.
Castle Street Hospital for Women. Colombo 08.

Background Synchronous cancers constitute 0.5-2% of all gynaecologic malignancies. Among them, synchronous ovarian and endometrial cancers are the most frequent combination (40-60%). The most common histological type of synchronous endometrial and ovarian cancers is endometrioid adenocarcinoma which is found up to 70% of cases.

Case A 52-year-old mother of 3 children presented with heavy menstrual bleeding and abdominal distension for 2 months. Examination revealed a large firm irregular pelvic mass which was confirmed by ultrasound which showed a 16x14cm multilocular right ovarian tumour with cystic and solid areas and normal uterus and left ovary. CA-125 level was 189 U/mL. Laparotomy was performed and 20x16cm right ovarian tumour with cystic, solid and haemorrhagic areas and nodular surface was noted. The uterus was uniformly enlarged to the size of a 10 weeks' gravid uterus. Left ovary was 4x2cm in size and looked normal. Multiple tumour deposits were seen on omentum and moderate ascites was present. Total abdominal hysterectomy with bilateral salpingo-oophorectomy and omentectomy was performed. Histology disclosed grade 1 endometrioid adenocarcinoma of both ovaries and uterus which had less than 50% of myometrial invasion. Following unremarkable postoperative period, the patient is awaiting 6 cycles of adjuvant chemotherapy.

Conclusion Synchronous cancers of uterus and ovaries can occur as isolated primary or metastatic cancers. 30 - 40% of them occur at younger age group. They are also at increased risk of hereditary non-polyposis colorectal carcinoma (HNPCC) which justifies HNPCC testing for this group of patients. Several theories have been suggested as possible aetiology. The theory of secondary Müllerian system explains the development of primary carcinomas in ovarian epithelium, fallopian tube and uterus behaving as single component. Micro

satellite instability and DNA mismatch repair gene mutations are possible molecular mechanisms causing these cancers. Tobacco use and endometriosis may also be contributory factors.

Synchronous ovarian and endometrial cancers are often diagnosed at an earlier stage with a lower histological grade. Patients with synchronous cancers have better prognosis than those with single cancer of either organ probably due to genetically driven limitations for tumour dissemination. In contrast to typical synchronous tumours, this case has distinct features with older age of the patient and advanced stage at the presentation with omental deposits and ascites. This also highlights various aspects of synchronous tumour pathogenesis yet to be unveiled.

EP103

A case report of management of atypical endometrial hyperplasia in a young female with primary subfertility.

Samarakkody SN¹, Sirisena PLA¹, Raguraman S¹, Perera MAK¹, Edirisinghe CA¹.

De Soysa Hospital for Women, Colombo, Sri Lanka.

Background: Endometrial cancer is the most common gynaecological malignancy in the Western world and endometrial hyperplasia is a precursor. The incidence of endometrial hyperplasia is estimated to be at least three times higher than endometrial cancer and if left untreated it can progress to cancer. Early-stage endometrial cancer and complex atypical hyperplasia are treated with hysterectomy and bilateral salpingo-oophorectomy. An emerging issue among younger women affected is the possibility of a fertility-sparing treatment with progestogen therapy (eg: Levonorgestrel releasing intrauterine system) and close follow-up.

Case: In 2017 March, a 26-year-old female presented to us with abnormal uterine bleeding for one year and primary subfertility for four years. She has had heavy and prolonged bleeding occurring at irregular and frequent intervals which has worsened during the last two months. She denied a history of smoking and has undergone a laparoscopic dye test and drilling two years ago. She did not have a family history of endometrial, breast or colonic carcinomas. Her body mass index (BMI) was 26.8kg/m² and evidence of mild to moderate hirsutism and acne were noted. Gynaecological examination revealed no abnormalities. The trans vaginal ultrasound scan showed a thickened endometrium (12mm) and evidence of polycystic ovaries. Hysteroscopy and endometrial sampling was carried out and revealed multiple endometrial polyps with increased vascularity and the histology reported as complex glandular atypical hyperplasia. Her CA-125 was normal. Considering the patient's age and her strong desire to preserve fertility a conservative management plan was proposed and Levonorgestrel releasing intrauterine system (LNG-IUS) was inserted and advice on weight reduction was given. A repeat endometrial sampling was planned in three months while keeping the LNG-IUS in situ, following which fertility treatment would be planned provided the sampling showed regression of the disease.

Conclusion: It is always challenging to treat a young patient having fertility wishes with atypical endometrial hyperplasia and the clinician should be aware of the best available treatment modalities and the proper plan of follow-up with the counselling of the patient in order to achieve optimal outcome.

EP104

A Case Report of Recurrent Empty Follicle

Syndrome

Chathumal SMDJ¹, Kaluarachchi A¹, Wijeratne S¹,
Weerawardhana CD¹, Seneviratne HR², Batcha M², Kaluarachchi DP².

¹Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Colombo.

²Vindana Fertility Center, Colombo, Sri Lanka.

Background: Empty follicle syndrome (EFS) is defined as failure to retrieve oocytes from mature ovarian follicles following ovulation induction for in vitro Fertilization (IVF), even following meticulous aspiration with repeated flushing, despite normal ovarian follicular development and adequate oestradiol levels. We report a case of recurrent empty follicle syndrome where oocytes were not retrieved despite different ovarian stimulation protocols.

Case Report: A 35-year-old woman from Kurunegala presented to gynaecology clinic with a history primary subfertility for 10 years. She had undergone emergency laparotomy and ovarian cystectomy in 2008 and the histology confirmed a corpus luteal cyst. In 2010 a laparoscopy and dye test confirmed normal pelvic anatomy and tubal patency. The husband's seminal fluid analysis showed oligoasthenoteratozoospermia. The patient was advised to undergo in vitro fertilization treatment. She underwent the first IVF cycle with the antagonist protocol. Ovarian stimulation was achieved with gonadotropins (Follitropin beta -Recagon). The patient developed 35 follicles including 18 follicles in left ovary and 17 follicles in the right ovary. Once the mature follicles were seen 10,000 IU of hCG was administered and oocyte pick-up (OPU) was performed 35 hours later. No oocytes were retrieved. The second cycle was commenced 3 months later with long pituitary down-regulation protocol using GnRH agonist (Decapeptyl). Ovarian stimulation was achieved with gonadotropins (Follitropin alpha - Gonal F). The patient developed 35 follicles in both ovaries. Once the follicles were mature 10,000 IU of hCG was administered and oocyte pick-up (OPU) was performed after 35 hours. On the day of OPU, 25 follicles were aspirated and no oocytes were retrieved. Since oocytes were not retrieved from the follicles (10) were aspirated 24 hours later after repeat 10,000 IU hCG administration. No oocytes were retrieved. In view of repeated failure to retrieve oocytes in two IVF cycles and severe male factor infertility, she was offered donor embryo replacement. Following donor embryo transfer she got pregnant and the pregnancy progressed normally. She delivered a baby girl weighing 2800 g on 31.05.2017 by an elective caesarean section.

Conclusion: Empty follicle syndrome is a rare condition which could recur in spite of using different ovarian stimulation protocols. Delaying the oocyte pick up with repeat HCG administration does not increase the possibility of oocyte retrieval. Donor embryo transfer or egg donation is an acceptable management option for these patients.

EP105

Successful twin pregnancy following transfer of two spontaneously hatched blastocysts from vitrified cleaved embryos

Weerakkody G, Karunaratne N, Hapangama H, Ralapanawe M.

Lanka Hospitals, Colombo, Sri Lanka.

Abstract: Improved pregnancy rates have been observed with

the transfer of blastocysts. Vitrified cleaved embryos can be warmed and cultured up to blastocyst stage, and the ability of these blastocysts to hatch naturally plays a vital role in implantation. Transferring spontaneously hatched blastocysts provides a greater chance of successful implantation than transferring expanded blastocysts. Although there is a lack of studies published regarding spontaneously hatched blastocysts, it is seen that achieving blastocyst hatching naturally is better than assisted hatching, due to the risk of embryo damage and reduced embryo viability that may arise with assisted hatching. A 32-year-old female underwent a controlled ovarian hyperstimulation protocol (long protocol). Oocyte recovery (OR) was done and sixteen mature oocytes were obtained. Intra Cytoplasmic Sperm Injection (ICSI) was performed on all the mature oocytes and was checked for fertilization. Out of sixteen, eleven were fertilized. Development was monitored on subsequent days and on Day 3, six optimally cleave stage embryos were obtained. All six embryos were vitrified using Rapid Vit Cleave (Vitrolife) culture media and Vitrolife Rapid-iTM vitrification system. Subsequently, the embryos were warmed 52 days following vitrification using Rapid Warm Cleave media and Vitro Life Rapid-iTM vitrification system. Five out of the six embryos survived the warming procedure and were cultured up to day 5. On day 5 two spontaneously hatched blastocysts were obtained. The two hatched blastocysts were transferred. After 14 days following the transfer β hCG levels were checked, and confirmed implantation. After 4 weeks following transfer an ultrasound scanning was done and two gestational sacs were observed confirming successful dichorionic twin pregnancy. One hatched blastocyst developed from the two highest quality cleaved stage embryos, while the second hatched blastocyst developed from a lower quality cleaved stage embryo; hence, it is not necessarily the fast cleaving embryos that develop up to blastocyst stage. This suggests that embryo grading following culturing up to blastocyst stage is a better screening tool for selecting the best quality embryos for transfer.

EP106

Steroid cell tumour of ovary in a postmenopausal woman

Gunasingha, ADHN, Jayalath AVS, Ruwanpura LP, Athulathmudali SR, Hapuchchige C.

Apeksha Hospital, Maharagama.

Background Steroid cell tumour (SCT) is a rare sex cord-stromal type ovarian tumour comprising less than 0.5% of all ovarian neoplasms. It can present with features of masculinisation at any age although uncommon in postmenopausal women.

Case A 70-year-old mother of five children presented with abdominal distension for 3 months. Examination revealed a large, firm and mobile pelvic mass. There was evidence of virilisation with frontal balding, clitoromegaly and hirsutism. Ultrasound showed a large pelvic mass possibly of ovarian origin with normal uterus. A cystic and solid tumour mass arising from left ovary was noted in computed tomography. There was no ascites, lymphadenopathy, liver metastasis or adrenal gland enlargement. Her plasma testosterone was elevated with suppressed FSH and LH. CA-125 level was 138U/mL. She underwent total abdominal hysterectomy, bilateral salpingo-oophorectomy and omentectomy with the probable diagnosis of an androgen secreting ovarian neoplasm. A 12x15x20cm size left ovarian tumour without evidence of metastasis and normal right ovary and uterus were the operative findings. Initial diagnosis was confirmed by

histopathology which revealed a steroid cell tumour of not otherwise specified subtype of the ovary. She was not offered chemotherapy postoperatively. Restoration of the hormonal profile to that of a normal postmenopausal woman was observed at 6 months' follow-up.

Conclusion. Rapidly developing virilisation after menopause is an alarming sign of an androgen secreting steroid cell tumour. SCTs are subdivided into stromal luteoma, Leydig cell tumour and steroid cell tumour; not otherwise specified (NOS). Majority of them are benign and unilateral behaving in an autonomous fashion, despite being gonadotrophin driven rarely. Endocrine assessment consisting of testosterone, oestradiol, FSH, LH, androstenedione DHEAS, low dose dexamethasone suppression test, SHBG, thyroid, liver and renal function tests is of immense importance to confirm hyperandrogenism and to predict the site of excess androgens. Imaging with USS/CT abdomen and pelvis provides valuable information on tumour masses and non-ovarian anomalies. Selective ovarian venous sampling is helpful in cases of uncertain tumour location. Debulking surgery is the accepted first line treatment. The value of chemotherapy and radiotherapy is yet to be established. GnRH analogues may have a promising diagnostic and therapeutic role in gonadotrophin dependent SCTs. Follow-up including hormonal assay is paramount to detect recurrence.

EP107

Knowledge and practices among women with gestational diabetes mellitus attending De Soysa hospital for Women

Madumali HGH¹, Randeniya C¹, De Soysa EKN², Salih FA².

¹Department of Obstetrics and Gynaecology, Faculty of Medicine Colombo, Sri Lanka.

²De Soysa Hospital for Women, Colombo, Sri Lanka.

Design, setting, methods: A descriptive observational study was conducted through an interviewer administered pretested questionnaire. Following the questionnaire, the women were educated about the methods for control, cut off values and consequences of poor control.

Results The study included 75 participants who attended diabetic clinic. This consisted 49 (65.33%) Sinhalese, 12(16%) Tamils, and 14(18.67%) Muslims. The educational levels of the study population were; Grade 5 or below 13(17.33%), O/L33(44%), A/L 21(28%), and higher education 8(10.67%). All participants were knowledgeable about medical nutrition therapy but 52(69.33%) were on diet control while 20(26.67%) were doing regular exercises. 2(2.67%) of them were on metformin, 10(13.33%) of them were on both insulin and metformin and 20(26.67%) of them were only on insulin. 50(66.67%) knew that macrosomia is a complication of poorly controlled GDM. The knowledge on IUD 24(32%), end organ damage 28(37.33%), future risk of diabetes 23(30.67%), birth trauma 17(22.67%), and IRDS 6(8%).

Conclusion Although there are educational programmes for the pregnant women with GDM the use of diet and exercise properly to achieve control of blood glucose level is poor. Measures to improve this may need other measures like Cognitive Behaviour Therapy.

EP108

Laparoscopy in a patient with ventriculo-peritoneal shunt

Gunaratne PM, Eustace D.

Stoke Mandeville Hospital, Aylesbury, United Kingdom.

Background: The condition of hydrocephalus is well recognized, as is its treatment by insertion of a shunt in order to drain the CSF and prevent increase in intracranial pressure. Hydrocephalus can be congenital or acquired, due to a tumour, aqueductal stenosis, craniosynostosis, Dandy-Walker syndrome, or idiopathic. A commonly used route for the shunt is ventriculo-peritoneal (VP) where the CSF runs through a tunneled line which ends in the peritoneal cavity. Others include ventriculo atrial, ventriculopleural and lumbar peritoneal. The complications that can occur with a shunt are infection, blockage and over drainage. With the increasing use of laparoscopic surgery, we are now encountering patients who present for laparoscopic procedures who have a VP shunt in situ. This raises number of issues. Firstly the issue of possible complications relating to the increased intra-abdominal pressures used at the time of insufflation. Specifically, the concerns are whether the pneumoperitoneum may cause retrograde diffusion into the ventricles resulting in increased intracranial pressure. Secondly, the possible risk of infection of the shunt resulting in meningitis. And thirdly, the effect of increased CO concentrations on the brain.

Case Report: A 53-year-old patient with a VP shunt due to idiopathic increased intracranial pressure underwent prophylactic laparoscopic bilateral salpingo-oophorectomy due to an increased risk of ovarian carcinoma. A pre-operative opinion was sought from her neurosurgeon and the advice was to keep the intra-abdominal pressure under 20 mmHg and ideally to deflate the abdomen for a period of time if the procedure was likely to be prolonged. At the time of laparoscopy, the shunt was easily visualized and noted to be draining normally. She had uncomplicated surgery and normal monitoring during the surgery. The entire procedure lasted for 30 minutes. At the end the shunt was again checked and noted to be draining freely. **Conclusion:** The presence of a VP shunt does not appear to have any significant risk in patients undergoing laparoscopic procedures. The risk of retrograde failure of the valve, air embolism and infection is minimal. The insufflation pressure should be kept within reasonable parameters and free drainage from the tip of the shunt confirmed at the end of the procedure. There should be good anaesthetic and monitoring facilities.

EP110

Clinical audit on documentation prior to emergency caesarean section

Bodhinarayana TN, De Silva BGN, Karunaratne SMG.

Sri Jayewardene general hospital, Nugegoda.

Objective To assess the knowledge and attitude about documentation prior to perform an emergency caesarean section

Method A clinical audit was conducted of the patients who underwent emergency caesarean section from 25-08-2016 to 25-10-2016. Documentation prior to the surgery was traced in all BHTs. Re-audit was conducted from 11-11-2016 to 11-01-2017 following two educational sessions on documentation.

Results: In the first cycle even though the surgery has been decided, only in 44% of cases it has been documented that on call consultant was informed. Out of this, 81% of occasions the deciding medical officer has noted down it by himself. In interest,

an intern medical officer has written the notes instead of a senior doctor. In re-audit only in 68% of cases it has been documented that the on call consultant was informed. Out of that, only in 75% of cases notes were written by the particular senior medical officer

Conclusion Caesarean section is a major obstetric intervention. Proper documentation about informing the senior team members is extremely important from a legal point of view. In addition to that the maintenance of bed head ticket records by a senior person who is assessing a particular patient is also an important factor. In order to accomplish that we need to educate and emphasize the medical officers regarding proper documentation.

EP 111

A case report of a successful management of a caesarean scar pregnancy

Kumarasinghe HMS, Jayalath HPI, De Silva PHP.

North Colombo Teaching Hospital, Ragama, Sri Lanka.

Background Caesarean scar pregnancy (CSP) is the rarest type of ectopic pregnancy implanted in the myometrium and surrounding fibrous tissue of the scar and the incidence is 1 in 2200. Uncontrolled haemorrhage and uterine rupture are serious complications. Diagnosis is made by USS and MRI. TVS features such as empty uterine and cervical canal, sac in the anterior isthmus portion, absent or minimal myometrium behind the bladder are diagnostic. Treatment options include systemic or local application of methotrexate, misoprostol, dilatation and curettage, evacuation followed by the repair, scar resection, and uterine artery embolization. Surgical approach may be via hysteroscopy, laparoscopy or open method.

Case: A 27-year-old woman with a previous caesarean section booked at 8 weeks. She was asymptomatic. An empty uterine and cervical canal was noted during the transvaginal scan. There was a gestational sac with a fetal pole of an average gestational age of 8 weeks with absent fetal echo confirmed by colour doppler. Diagnosis of caesarean scar pregnancy was made. She was given 400µg of misoprostol orally followed by suction evacuation and an inflated Foley catheter was used trans-cervically to arrest bleeding. Catheter was removed after 6 hours. Repeat scan showed a mixed-echogenic material suggestive of a blood clot replacing the sac. Postoperative recovery was uneventful.

Conclusion Early diagnosis of CSP will eventually have better outcome due to prevention of serious complications. Promising reproductive outcomes with low recurrent scar pregnancy rates have been reported.

EP112

Synchronous ovarian and endometrial carcinoma: A case report

Prasanga DPGGM, Pallemulla LC, Niranga KKG, Athulathmudali SR, Chandrasinghe SK.

Castle Street Hospital for Women, Colombo 08, Sri Lanka.

Introduction Simultaneous occurrence of primary malignancies in both ovary and uterus with different histology or similar histology is considered as synchronous tumours. Synchronous primary malignancies account for 0.7-1.8% of all gynaecologic tumours. Synchronous ovarian and endometrial carcinomas comprise 40-53% of all synchronous gynaecologic

e-Poster Presentations
malignancies. Incidence of synchronous primary endometrial and ovarian cancer is 3.3% in patients with endometrial cancer and 2.7% in patients with ovarian cancer.

Case presentation: A 73-year-old mother of two children, presented with a history of post-menopausal bleeding. Abdominal examination was normal. Gynaecological examination revealed a trophic cervix, bulky uterus and a right adnexal mass. Ultrasonography showed thickened endometrium measuring 25 mm and a complex lesion in right adnexa with solid and cystic components.

Endometrial sampling revealed endometrioid adenocarcinoma. Total abdominal hysterectomy, bilateral salpingo-oophorectomy and Infracolicomentectomy was performed. Histopathology confirmed simultaneous independent endometria well differentiated Grade 1 endometrioid adenocarcinoma (FIGO 1A TNM pT1a) and a right ovarian well differentiated endometrioid adenocarcinoma (FIGO Stage 1c TNM pT1c). Patient was referred to Oncology Unit for further followup.

Conclusions Synchronous tumours are generally more common in women less than 40 years. It may present in elderly women. As they are usually diagnosed at an earlier stage, low grade with better prognosis compared to single advanced cancers. Survival rates are generally very high with estimated recurrence rate at 5 years as low as 10%.

EP113

Non descent vaginal hysterectomy using special instruments

Vasudeva Panicker TN.

Panicker's Hospital, Kodungallur, Thrissur, Kerala.

Background: Hysterectomy is the most commonly performed gynaecological surgical procedure. Vaginal hysterectomy is the safest minimally invasive and least expensive technique. I introduce 5 instruments invented by me for this procedure.

- 1) Super Bipolar Forceps - This is a break through invention in Electro surgery. With this instrument any vessel or any tissue can be safely and effectively coagulated.
- 2) Universal Ligation Forceps - This is a modification of right angled forceps- I have introduced a 60 degree curvature behind the 90 degree curvature of the right angled forceps. This can be used as a thread carrier, suture carrier, tissue separator and also as aneurism needle.
- 3) Un-breakable knife - Once a blade is inserted into this handle the blade will become unbreakable.
- 4) Non Slip Bulldog Forceps - This is very useful to grasp and pull tough tissues.
- 5) Lighted Speculum - This is a vaginal speculum to which fiber optic light cable can be directly attached.

Procedure: The steps are almost similar to TLH but done vaginally using simple instruments. Bladder dissected up and the UV fold opened. Pouch of Douglas also opened. Cervix pulled down and parametrium pierced with PUL forceps as high as possible and is coagulated and divided. Same procedure repeated on the opposite side and for upper pedicles including uterine and ovarian vessels. Large uteri are morcellated and removed. Vault transfixed to the cardinal and utero sacral ligaments and vault is closed.

Cases: A total of 972 cases were done from January 2008 to July 2013. Indications were uterine fibroids 481, adenomyosis 81, DUB 86, cervical polyp / fibroid 79, benign adnexal pathology 36, secondary PPH 8, uterine prolapse 58, pelvic inflammatory disease 29, endometriosis 14. There were 4 bladder injuries.

Conclusion: This technique of vaginal hysterectomy is very safe with minimum blood loss, minimum post-operative pain and minimum expenditure.

EP114

A case report of small bowel gangrene due to hypercoagulable state of pregnancy

Wijethilake BHWMT, Sumanathissa RPJ, Niruthan T, Perera WME, Hemapriya S.

Teaching Hospital, Kandy, Sri Lanka.

Background: Mesenteric ischemia accounts for less than 1% of explorative laparotomies for acute abdomen. Arterial thrombosis and embolism and venous thrombosis are the commonest causes. Pregnancy is a hypercoagulable state; with elevation of Factors VII, VIII and fibrinogen and reduction of fibrinolytic activity. Mesenteric vein thrombosis due to pregnancy in the absence of a secondary coagulation error is extremely rare. The presentation is with abdominal pain, nausea, and vomiting. Non specific signs, and laboratory results like leukocytosis with raised haematocrit make early diagnosis a challenge. The microscopic features of mesenteric vein thrombosis help in histopathological diagnosis.

Case: A 22-year-old primigravida presented at 22 weeks of period of amenorrhoea with one-day history of abdominal pain and vomiting. She had no constipation. She had received routine obstetric care and her pregnancy was uncomplicated until admission. Her medical history did not reveal connective tissue disorders or pregnancy losses and she was not on prescription medication. The patient was haemodynamically stable on admission. The abdomen was soft and obstetric ultrasonography revealed alive fetus with parameters consistent with 19+5 maturity. There was no free peritoneal fluid. 12 hours after presentation patient became hemodynamically unstable and developed an acute abdomen. Ultrasound abdomen revealed distended fluid filled bowel loops and free peritoneal fluid. Fetal heart beat was absent. The patient underwent an explorative laparotomy which revealed gangrenous small bowel loops (duodeno-jejunal flexure to the distal ileum; length 235cm) which was resected and anastomosed end-to-end. A diagnosis of mesenteric vein thrombosis was postulated (confirmed later with histopathology) and the patient was investigated for a primary thrombophilia state. Full Blood Count showed normal Haemoglobin and Haematocrit. Screening with ESR, CRP and ANA was negative. Echocardiography did not reveal cardiac source for thrombo-embolism. Electrocardiogram was in sinus rhythm. Blood picture revealed moderate anaemia due to acute blood loss. Anti-Phospholipid Syndrome screening (Anti-Thrombin III, protein C, S, and Ham's test) was negative. Lupus anticoagulant screen was negative. Anticardiolipin antibody Ig G was negative. JAK2PV617F mutation screening by DNA extraction was negative. The patient was prescribed anticoagulation with warfarin for 3 months and thrombophilia screening was repeated and confirmed to be negative. Thus primary cause for bowel gangrene was ascertained to be due to the hypercoagulable state due to pregnancy.

Conclusion: This case signifies that pregnancy is a pro-thrombotic state warranting consideration of bowel ischaemia due to mesenteric vein thrombosis in the differential diagnosis of

a pregnant lady presenting with acute abdomen.

EP116

A case report of true umbilical cord knot leading to fetal demise

Herath CMB, Ekanayake SB, Padeniya AGTU.

Teaching Hospital, Kandy, Sri Lanka.

Background: Reported incidence of true knots of the umbilical cord is around 0.3% to 2%. It is often undiagnosed antenatally despite the availability of ultrasonography. Most true knots occur without any clinical significance but a 4-10-fold increase in fetal loss has been reported.

Case: A 29-year-old woman G3 P2 was admitted in early labour at 37+ weeks of gestation. Fetal movements were present and fetal heart rate was 136bpm. Vaginal examination on admission revealed that she was 4cm dilated and 80% effaced with station-1. USS showed normal growth parameters and fetal heart activity was present. Fetal movements were seen. Doppler not performed. On admission to the labour ward fetal heart sounds were not detected which was confirmed by USS. Fresh still birth of a 2.8kg male fetus ensued. There were no gross fetal or placental abnormalities. A true knot was found 10cm distal to fetal insertion and the 60cm long cord was inserted centrally on to the placenta.

Conclusion: True knots arise during early pregnancy when relatively more amniotic fluid is present with greater fetal movements. The risk factors associated with true knots are advanced maternal age, multiparity, history of still birth, obesity, prolonged gestation, small fetuses, GDM, male fetuses, maternal anaemia, polyhydramnios, long umbilical cords and fetuses with excessive movements. In routine USS it can be easily missed but 3D power Doppler can be very useful. Four-leaf clover, an unusual multi-coloured pattern is highly suspicious and hanging noose is diagnostic even with fetal movements. The antenatal diagnosis of true knot has not been commonly reported. Obstetricians need to be aware of the diagnosis, mainly if any of the risk factors are present. With the use of recent advancements in ultrasonography it is possible to reduce perinatal loss due to knots in the umbilical cord.

EP117

A Case Report: Pregnancy complicated by heart disease with severe pulmonary hypertension

Rathigashini R¹, Kaluarachchi A², Bambaranda BG¹, Wijesighe RD², Ranaweera AKP².

¹De Soysa Hospital for Women, Colombo.

²Department of Obstetrics and Gynaecology, University of Colombo.

Background: Heart disease complicating pregnancy is one of the commonest cause for maternal mortality in Sri Lanka. An increase in the number of cases with heart diseases complicating pregnancy is seen recently with increased access to health care services and detection of patients from previous war affected areas. Survival of more children to reproductive age, with advancement of treatment of congenital heart diseases in the country over the last two decades have also contributed. However, management of these patients during pregnancy is challenging, as significant number of conditions are associated with high maternal and fetal morbidity and mortality. We report a case of WHO class IV patient with maternal

complications successfully managed during pregnancy.

Case report: A 34-year-old primigravida diagnosed with a Ventricular Septal Defect and severe pulmonary hypertension (TRPG-72 mmHg) was referred to us at 16 weeks of POA for medical termination. She was NYHA class-2 at presentation. However, patient declined termination. She was managed by a multidisciplinary team including obstetrician, cardiologist, anaesthesiologist and neonatologist according to our unit protocol. Throughout her pregnancy she was managed as an inpatient due to travelling issues. Since her cardiac status remained unchanged with close monitoring her pregnancy was carried to term. As there was fetal growth restriction, she underwent a lowersegment caesarean section and sterilization at 37 weeks, Birth weight was 2.35kg. Her post-operative management was done in the intensive care unit. She developed cardiogenic shock and heart failure in the immediate postoperative period. On day two she suffered from an ischemic stroke secondary to severe heart failure. With cardiac support and early physiotherapy and rehabilitation, she recovered and was discharged home after 3 weeks.

Conclusion: This case illustrates the importance of proper screening, early treatment of congenital heart disease and need for pre-conceptional advice before embarking on pregnancy. Though patients in WHO class IV have increased mortality and morbidity during pregnancy and postpartum period, early referral and dedicated multidisciplinary management in specialized units, the impact can be reduced to some extent. Screening for heart disease in early pregnancy is important, as early termination is a safe option for many patients. However, a significant number of patients decline termination. Hence, all patients in the reproductive age group with heart diseases should be referred for pre-conceptional counselling by an obstetrician with experience in managing these patients.

EP118

A case report of secondary amenorrhoea due to endometrial tuberculosis

Sivachandran S³, Pushpakanthan EJ¹, Sijethara S².

¹Base Hospital MahaOya.

²Teaching Hospital, Mahamodara, Sri Lanka.

³National Cancer Institute, Maharagama, Sri Lanka.

Introduction: Tuberculosis (TB) is endemic in Sri Lanka and the endometrium of the uterus is a known site of extrapulmonary TB. Although it is a well-known cause of secondary amenorrhoea in developing countries, awareness regarding endometrial TB and its complications are relatively low in Sri Lanka.

Case: A 42-year-old, para 2, presented with secondary amenorrhoea of 3 years' duration without menopausal symptoms. Although she had a contact history of pulmonary TB, her past history was unremarkable. She had normal pelvic scan and hormonal assay (Serum FSH, LH, prolactin and TSH) one year back with negative progesterone challenge test. Clinical examination was unremarkable. Initial investigations revealed elevated erythrocyte sedimentation rate and positive Mantoux test. Repeat hormonal assay remained in the premenopausal range. Progesterone challenge test remained negative. Endometrial biopsy revealed granulomatous endometritis, suggestive of tuberculosis infection. TB culture failed to grow the organism possibly due to inadequate sample. A diagnosis of Endometrial TB was made and she is currently on anti-tuberculosis treatment and followed up in our clinic.

e-Poster Presentations

Discussion: Although rare, endometrial TB is an important cause of secondary amenorrhoea. Diagnosis of genital tuberculosis is difficult and needs a high degree of suspicion. The endometrium is involved in approximately 50–60% of women with genital tuberculosis. Endometrial TB usually present with secondary amenorrhoea, infertility and pelvic pain with or without systemic features of TB. Supportive investigations such as ESR, Mantoux test and chest X-ray may be normal and definitive diagnosis depend on histological confirmation or bacteriological evidence of acid fast bacilli or TB polymerase chain reaction (PCR) in endometrial tissue or menstrual blood. Although anti-TB drugs may cure the infection, hysteroscopic adhesiolysis to restore their menstruation may be necessary.

EP119

A case report of Otocephaly

Siriwardhana DS, Lanerolle S, Gunathilaka PK, Jayalath JAVS.
Castle Street Hospital for Women, Colombo 08, Sri Lanka.

Introduction: Otocephaly is a rare lethal syndrome with a prevalence of 1:70 000 live births. Otocephaly commonly associated with microstomia, aglossia, agnathia, and synotia. Defective function of neural crest cells of first branchial arch is suggested as the primary cause for above malformations.

Case report: This female neonate born to a 38-year-old woman with a history of one first trimester miscarriage, one preterm delivery at 26 weeks of gestation, one neonatal death at 30 weeks and one normal vaginal delivery. During this pregnancy a cervical cerclage was inserted at 14 weeks. At 29 weeks and 5 days of gestation she was admitted with labour pains and ultra sound scan revealed a single live fetus with gross polyhydramnios (AFI 40cm). A baby girl was delivered and died immediately after delivery from apnoea and bradycardia. On examination small abnormal head (microcephaly) with downward slanting eyes and palpebral fissures with low set ears were noted, and the mouth was a blindly ending pouch which was located just below the nose. Mandible was absent. Anus was not developed. Macroscopic features were compatible with otocephaly. Autopsy was not performed.

Discussion: Otocephaly may be caused by both environmental and genetic factors. These factors cause defective migration of neural crest cells to the distal end of mandibular arch leading indirectly to the failure of ascent of developing auricles. Prenatal diagnosis of otocephaly is usually difficult. The majority are usually found incidentally after other anomalies such as holoprosencephaly, encephalocele, situs inversus totalis or renal defects were identified. Even though this condition is difficult to diagnose, it should be considered as one of the differential diagnosis in a case of polyhydramnios. Detailed anomaly scan using 2D or 3D ultrasound scan may detect the abnormalities found in this condition. Early detection is important in counselling the parents regarding pregnancy outcome.

EP120

A case report of warm autoimmune haemolytic anaemia in pregnancy

Musthaq ACM, Rajeevan J, Silva PGYS, Kodithuwakku

KASUA, Pallemulla L.

Castle Street Hospital for women, Sri Lanka.

Background: Autoimmune haemolysis is defined as a shortening of red blood cell life span due to antibodies directed

against the individual's own erythrocytes. This is thought to result from deficient activity of suppressor T lymphocytes. Anaemia results when destruction outweighs production. It can be either primary or secondary and further classified into "warm", "cold" and mixed types.

Case: We describe a 22-year-old primigravida, who initially had the symptoms of anaemia with jaundice at the age of 14 years and she was treated with prednisolone, there after she was asymptomatic until the age of 18 years. She was diagnosed with renal TB at that age and had exacerbation of haemolytic anaemia. She was extensively investigated and co-existing connective tissue disorders were excluded and diagnosis of idiopathic autoimmune haemolytic anaemia (AIHA) was made. She had received the full treatment regime for renal TB and was asymptomatic until the index pregnancy.

She was admitted at 32 weeks of gestation with the complaint of fever with chills and rigors and bilateral loin pain. Urine full report revealed field full of pus cells and culture was positive for E. Coli and ultrasound scan revealed evidence of pyelonephritis. She had two previous episodes of UTI during this pregnancy. Meanwhile she developed another exacerbation of underlying haemolytic anaemia. She received multidisciplinary care and given 2 units of blood and broad spectrum antibiotics. In addition to that fetus had growth restriction with reduced diastolic flow. Pregnancy was continued until 37 weeks under careful fetal and maternal monitoring and labour was induced at 37 weeks. She delivered a 2400g baby without any complications. Postnatal period was uneventful.

Conclusion: Even though our patient was diagnosed with idiopathic warm AIHA, all her exacerbation was associated with underlying infective episodes. Drug induced haemolysis is a possibility. Quinidine, NSAIDs, methyldopa, and antibiotics such as penicillins, cephalosporins and ciprofloxacin are associated with haemolysis. AIHA is a rare entity, may be life-threatening, and needs tireless diagnostic and appropriate treatment approach for optimum maternal-fetal outcome. It responds to glucocorticoid therapy dramatically and its administration at the right time may improve fetal well-being.

EP121

An audit on adherence to guidelines when obtaining consent for surgical procedures at Unit 03/04, Castle Street hospital for Women, Colombo.

Rajeevan J¹, Pallemulle L¹, Prasanga DPGGM¹, Musthaq ACM¹, Silva PGYS¹, Hamzathwany R², Chandrasighe SK¹.

¹Castle Street Hospital for Women, Sri Lanka.

²Faculty of medicine, University of Jaffna.

Background: The practice of obtaining consent of the patient for surgical procedures has clinical, ethical and legal implications. To obtain informed consent the process of shared understanding and decision making between patient and clinician must be approached diligently and robustly. Before seeking a woman's consent clinician should have been sure that she is fully informed, understands the nature of the condition for which it is being proposed, its prognosis, likely consequences and the risks, as well as any reasonable or accepted alternative treatments.

Objective: To assess the adherence to guidelines (RCOG Guideline on obtaining valid consent) when obtaining consent for surgical procedures.

Methodology: Adherence was assessed by interviewer

administered questionnaire based on the RCOG guideline on obtaining valid consent before surgical procedures. A total number of 93 patients who underwent surgical procedures at unit 03/04, Castle Street Hospital for women, Colombo from April 2017 to May 2017 were included.

Results: Out of 93 patients, 80.6% of patients knew about the name of the surgery and 93.5% were aware about the reason for the procedure. Among them 90.3% of patients said they were informed about benefits of the surgery and 67.7% of patients complained that they were not aware about risks of the procedure. 90.3 % confirmed that the patient statement was recorded while obtaining consent and 77.4% of participants signatures were recorded. But only 54.8% of patients said that they were aware of recorded doctors' signatures in consent form.

Conclusion: Even though most of the patients are aware of name, reason and benefits of the procedure, other aspects of obtaining valid consent were not satisfactory. Therefore, all clinicians should be trained to obtain consent according to RCOG guideline on obtaining valid consent and a consent form will be prepared based on RCOG guideline. Re-audit will be done after six months to assess the adherence improvement.

EP122

Pelvic varicosities causing uncontrolled intra-operative bleeding during vaginal hysterectomy.

Gankanda WI, Jayasundara DMCS, Gihan MC, Fahim SM, Thuvarathipan R.

University Obstetrics and Gynaecology Unit, De Soysa Hospital for Women and National Hospital, Colombo, Sri Lanka.

Pelvic varicosities are a rare condition; it is commonly found secondary to portal hypertension and usually associated with lower limb varicose veins. Pelvic varicosities are reported to cause pelvic congestion syndrome, spontaneous haemoperitoneum, recurrent vaginal bleeding, bleeding after hysterectomy and antepartum haemorrhage. Some of those circumstances had been severe enough to destabilize the patient haemodynamically needing aggressive resuscitation and further treatment like guided embolization and vessel ligation in non portal hypertensive patients and trans jugular intra hepatic shunting or liver transplantation in patients with portal hypertension. We report a rare case of severe bleeding during vaginal hysterectomy; due to pelvic varicosities which needed laparotomy. A 65-year-old housewife presented with a third degree utero-vaginal prolapse with a cystocele. She was a known patient with varicose veins in both lower limbs for which she had undergone stripping of bi-lateral lower limb veins. Examination revealed some anterior abdominal wall veins varicosities. She had no history suggestive of liver disease. Pre-operative investigations were normal except iron deficiency anaemia with haemoglobin concentration of 7g/dl, for which 2 units of blood were given. For varicose veins she was asked to wear compression stockings peri-operatively. During surgery, continuous bleeding from right adnexa was noted associated

Bangabandhu Sheikh Mujib Medical University, Dhaka,
Bangladesh.

with dilated uterine veins. Repeated attempts of re-ligating the pedicles failed and it was decided to proceed with a laparotomy to achieve haemostasis. During laparotomy a small amount of collected venous blood was noted. Uterine veins were ligated to achieve haemostasis. Intraoperative blood transfusion was given and a drain was inserted. Patient had an uneventful recovery and was referred to surgical team for further management of varicose veins.

Consideration must be given to the possibility of pelvic varicose veins in patients with other varicosities and liver diseases as it may cause unexpected bleeding intra or postoperatively. Anticipation of such situations is necessary when planning surgical interventions.

EP123

Incidence and risk factors of perineal trauma in women with a singleton vaginal birth without episiotomy

Thanuya M, Thuvarathipan R, Bhabu B, Sivomiya S, Elankumaran V, Sanjeevan K.
District General Hospital, Kilinochchi, Sri Lanka.

Background: There is no evidence to support routine episiotomy for labouring women at present. An episiotomy can be performed if there is a reasonable clinical indication. Perineal injuries are a recognized complication of vaginal deliveries. Although there are many recognized risk factors, it can still be difficult to predict their occurrence.

Objectives: To describe the range of perineal trauma in women with a singleton vaginal birth and estimate the effect of maternal and obstetric characteristics on the incidence of perineal tears in a unit where episiotomy is not routine.

Methods: We retrospectively analysed all singleton pregnancies delivered vaginally from January 2017 to May 2017 in District General Hospital, Kilinochchi.

Results: The incidence of perineal injury was 21.73%. A total of 153 women were included in this study. Age of the population ranged from 15 to 42 years with mean and median 23.7 and 25 years respectively. Among these 62.7% (96/153) developed first-degree tear, 35.9% (55/153) developed second-degree tear and 1.3% (2/153) developed third degree tear. None of them developed fourth degree tear. All the tears were sutured with standard technique. Among them 8.1% developed postpartum haemorrhage. Majority was primiparae (109/153). There were two breech deliveries. Among cephalic deliveries two (1.15%) were assisted vaginal delivery and 4.6% (8/153) with prolonged second stage of delivery. 1.9% (3/153) were preterm deliveries. Perineal tears in women with babies more than 3.5kg were 10.45% (16/153) and less than 2.5kg were 11.76% (18/153).

Conclusion: Perineal injuries are a recognized complication of vaginal deliveries. Even though there are many recognized risk factors, it can still be difficult to predict their occurrence. Routine episiotomy is not recommended. An episiotomy can be performed if there is a reasonable clinical indication only. Greater efforts are needed than currently in place to change the practice and attitude to reduce the occurrence of perineal tears.

EP124

Staging: a challenge in the management of cervical cancer

Khatu S.

Sri Lanka Journal of Obstetrics & Gynaecology August 2017; Volume 39; Supplement 1.

Background and Aims: Cervical cancer is the second most common cancer among females in Bangladesh. According to WHO the incidence is 19.6/100,000 women aged 30- 60 years. For proper management, information about the extent of disease is critical. Clinical stage is the single most important prognostic factor. According to Gynaecological Oncology Group (GOG), the errors in FIGO clinical staging ranges from 24% in stage IB to 67% in stage IIA. Various imaging studies are used to improve staging of cervical cancer. Use of MRI is most informative with regard to parametrial invasion. In Bangladesh, MRI is not easily available, cost is more and interpretation is often not correct. Aim of the study was to know the distribution of stages of cervical cancer in Bangabandhu Sheikh Mujib Medical University.

Methodology: Objective of the study was to determine clinical staging by examination under anaesthesia together with some accessory aids.

A retrospective observational study was done on 400 women from December 2011 to April 2016. Clinically diagnosed carcinoma cervix cases were evaluated under anaesthesia. Inspection of the cervix, extent of the spread, cystoscopy and proctoscopy where relevant were done to stage the disease. Biopsies were taken for histopathological confirmation. The examination findings were recorded in a pre designed schematic format. Data were collected from the record in a data collection sheet and analyzed.

Results: Of the 400 women, 71% were between 40-60 years. Tumour size was 2-4 cm in 45.25% cases. Seventy-three percent growth was cauliflower like. Distribution of stages were stage IB 27.5 %, stage IB 9.5%, stage IIA -15.5%, stage IIB- 25.74%, stage IIIA -4%, stage IIIB-13.5%, stage IVA - 4.24%.

Conclusions: Though MRI is a tool which can improve accuracy of staging of cervical cancer, examination under anaesthesia is still the method of choice for staging, in low resourced settings.

EP125

Validation of a low cost, locally assembled manometer system for the measurement of intra vesical pressure to estimate intra-abdominal pressure.

Jayasundera JMSW, Goonewardene IMR, Dasanayake DLW.
Obstetrics and Gynaecology Unit, Teaching Hospital, Mahamodara, Galle, Sri Lanka

Introduction: Intra vesical pressure measurements are used to estimate intra-abdominal pressure (IAP), to detect intra-abdominal hypertension (IAH).

Objective: To validate a low cost, locally assembled manometer system which was designed for measurement of intravesical pressure, in order to estimate IAP, measured by a laparoscopic carbon dioxide insufflator.

Method: Twenty patients undergoing laparoscopy at Academic Unit, Teaching Hospital, Mahamodara, Galle between 02 -28 February 2016 were studied. IAP was adjusted to be 0,5,10, 15, 20 and 25 mmHg by laparoscopic carbon dioxide insufflator. Corresponding intra vesical pressure was measured using locally

assembled manometer system comprising of a Foley catheter, three way stop valve, intra venous infusion tubes, a pressure monitoring line, a 50ml syringe, a 500ml normal saline pack and a central venous pressure measuring scale. Zero intravesical pressure level was considered to be the midaxillary line, with the patient supine. Bladder was instilled with 25ml normal saline. The bias, precision, percentage differences and agreement between the intravesical pressure measurements obtained and the corresponding IAPs were studied.

Results: Intra vesical pressure measurements had biases <1mmHg at IAPs of 0 - 20 mm Hg, precision < 2mmHg, percentage differences < 25% at IAPs of 0 - 25 mm Hg, and narrow limits of agreement.

Conclusion: Locally assembled, low cost manometer system is a valid instrument to measure intra vesical pressures to estimate IAP.

EP126

Experience in assisted vaginal breech delivery at a tertiary care hospital in Colombo, Sri Lanka during 2014-2015

De Silva BPGN, Dissanayaka AD, Jayasinghe KS, Ratnasiri UDP.

Castle Street hospital for women, Colombo.

Introduction Breech presentation is associated with significant fetal morbidity and mortality. The management options include Caesarean section, External cephalic Version and Assisted Vaginal Breech delivery (ABD), the latter is a challenging task to the Obstetrician.

Objectives: To assess the challenges, complications and outcomes of ABD.

Method Data from 36 cases of ABD over a two-year period (2014-2015) managed at Castle Street Hospital, were analyzed retrospectively. All cases were assessed clinically by the Consultant Obstetrician and suitable cases for ABD were selected considering the fetal and maternal parameters. All ABDs were performed by the Obstetric Registrars under the direct supervision of the Consultant, according to the international recommendations.

Results The mean age was 29.4 years (Range 23-36 years). Majority were in their second pregnancy (n=21). The mean period of gestation was 39 + 2 weeks. 80% had a spontaneous onset of labour and the rest were induced. The mean period of labour was 8.6 hours. The mean weight of the babies was 2519.1 kg (Range 1860 – 3241 kg). One intrapartum fetal death was reported due to fetal distress at cervical dilatation of 6cm, while 13 babies were sent for observation and 4 were resuscitated. While majority were discharged on the following day, 4 had prolonged stay due to respiratory distress, septicemia and neonatal jaundice.

Conclusion ABDs is challenging, but when carefully selected, it is an effective and safe procedure on experienced and skillful hands.

EP127

Agreement between intravesical pressure measurements obtained by two different methods using a simple, low cost, locally assembled manometer system

Goonewardene IMR, Jayasundara JMSW

Teaching Hospital, Mahamodara.

Objective: To compare the intra vesical pressure measurements the women in the supine position, at 0,5,10,15,20 and 25mmHg of intra-abdominal pressure (IAP), which was established with a laparoscopic carbon dioxide insufflator.

Results The correlation between results of the two methods was excellent ($r=0.98$, $p<0.001$). A mean difference of 2.6mmHg ($p < 0.001$) was seen between the two methods at an IAP of 25mmHg. The Limits of Agreement between the two methods ranged from -3.0 mm Hg (95% CI -4.3 to -1.7) at 10 mm Hg to 6.1mmHg (95% CI 4.4 to 7.7) at 25mmHg. The difference between the results of the new method and the old method as a percentage of the new method was maximum (-27%) at zero mmHg of IAP and ranged from approximately 3-5% between 5-20mm Hg of IAP.

Conclusion There was good agreement between the two methods of intravesical pressure measurements.

EP128

A Study of work done by Mithuru Piyasa of DeSoysa hospital for women, Colombo

Salih A, Randeniya C¹, Perera ULRM², Perera TGS², Lenagala MS², Madumali HGH.

¹Department of Obstetrics and Gynaecology, Faculty of Medicine Colombo.

²De Soysa Hospital for Women Colombo, Sri Lanka.

Introduction: Violence against women is a major health issue. Mithuru Piyasa of De Soysa Hospital for women was established in July 2013 to serve the women who experience violence.

Objective: To understand the work done by Mithuru Piyasa De Soysa Hospital for women who experience violence.

Study design setting and method: A secondary analysis of monthly returns from Mithuru Piyasa De Soysa Hospital for Women from 1st January 2014 to 31st December 2016.

Results: Total number of referrals to Mithuru Piyasa was 86 in 2014, 100 in 2015 and 176 in 2016 respectively. Majority of the referrals were from wards followed by self referrals. The main reason for seeking assistance from Mithuru Piyasa was stressful situations at home. The second reason was domestic violence and 6% of them were referred due to suicidal tendencies. The main type of abuse experienced by women was emotional abuse followed by physical abuse perpetrated by husband or in laws or other family members. Befriending was the main assistance provided. In addition to that social support, in-depth Counselling and legal help was offered for some.

Conclusion The number of women being referred for counselling increases with time and active surveillance of women who experience violence is needed in order to help them in a timely manner.

EP129

A Case report of in Utero Fetal Ovarian Torsion

Rajeevan J¹, Sritharan A², Hamzathwany R³, Prasanga DPGM¹, Silva PGYS¹, Kalaimaran P¹.

¹Castle street Hospital for Women, Colombo.

²Teaching Hospital Jaffna, Sri Lanka.

³Faculty of Medicine, University of Jaffna, Sri Lanka.

Background: Fetal ovarian cysts are the most common abdominal masses in fetuses and neonates. The incidence of fetal ovarian cyst detected in-utero has increased due to use of ultrasound scan. Ovarian torsion is the most common complication of an untreated ovarian cyst. Early diagnosis of ovarian torsion is crucial in avoiding complications and planning management.

Case presentation: A 31-year-old primigravida, with a normal anomaly scan at 22 weeks of POA was found to have a fetal intra-abdominal cystic mass without septa, measuring 4.5 * 5 cm at POA of 35 weeks. Otherwise biophysical parameters were normal with adequate amount of liquor. Patient was followed weekly with repeat ultrasound. At 37 weeks the mass size increased to 6.5*7cm. Therefore, it was decided to deliver with the suspicion of torsion. Elective LSCS was done and a baby girl delivered at POA of 37 weeks and 3 days. Baby was active during early post-partum period. Post-partum ultrasound scan revealed intra-abdominal cystic lesion measuring 6.5*4.5 cm containing thick fluid and no free fluid was noted in the abdomen. Exploratory laparotomy was done on post-partum day one. Large left ovarian cyst with altered blood inside and twisting of left fallopian tube with gangrenous distal end of the left fallopian tube and ovary was noted. Right side ovary, Fallopian tube and uterus normal. Bowel normal. Left salpingo-oophorectomy was done. Post-operative period was uncomplicated. Histopathology revealed a haemorrhagic ovarian cyst. There was no viable epithelium within the ovarian cyst to assess the nature of the cyst.

Conclusion: Torsion of an ovarian cyst is a common complication and it has been observed to occur more frequently during fetal life than postnatal life. Some studies have reported that the outcome of such complication is related to the length of the cyst pedicle, however it may only be evaluated during surgery. Torsion may cause inflammatory adhesions. Other complications include intra cystic haemorrhage, rupture, less frequently urinary tract or bowel obstruction and rarely auto amputation of the cyst. The decision regarding the management and treatment of fetal ovarian cysts should depend on the size, appearance of the cyst and visible complications. Ultrasonography allows differentiation of the ovarian mass and helps in the appropriate management.

EP130

A case report of endometrial carcinoma in a young patient with the background of polycystic ovarian disease

Athulathmudali SR, Ruwanpura LP, Jayalath JAVS, Gunasingha ADHN, Hapuarachchi C, Premarathne S.
Apeksha Hospital, Maharagama, Sri Lanka.

Background: Endometrial carcinoma is becoming the most common gynaecological cancer in the developed world. However only 5-6% of all endometrial cancers will be found in women under the age of 40 years. PCOS is one the commonest endocrine disorders in women of reproductive age. The prevalence of PCOS under Rotterdam criteria is 17.8±2.8%. Current data suggest that women with PCOS have a 2.89 fold (95%CI1.52-5.48) increased risk for endometrial cancer due to un-opposed oestrogen action with anovulatory cycles.

Case report: A 29-year-old nulliparous woman with a five-year history of primary subfertility presented with a history of prolonged daily spotting for 3 weeks. She attained menarche at the age of 13 years and since then she had oligomenorrhoea.

She married at the age of 24 years. After 2 years she presented with primary subfertility and was diagnosed to have PCOS but defaulted follow up. On examination BMI was 29kg/m² and hirsute. Abdominal and bimanual examinations were normal. Trans-vaginal sonography confirmed the diagnosis of PCOS. Endometrial thickness was 17mm with hyperechoic foci seen at fundal level raising the suspicion of hyperplasia with apolypoid lesion. Hysteroscopic endometrial sampling was performed and histology confirmed endometrioid adenocarcinoma (typeI). Patient insisted on uterine preservation in view of future fertility. MRI suggested the lesion infiltrating nearly half of the myometrium, giving the picture of stage II disease. A radical hysterectomy, bilateral salpingo-oophorectomy, pelvic node dissection done. Histology confirmed Grade 1 FIGO 1B disease.

Discussion: Fertility sparing treatment will be a realistic option, only in carefully selected young women with well differentiated early endometrial cancer. Immune-histochemistry, expression of progesterone receptor (PR), PTEN gene, DNA mismatch repair gene MLH1, and phospho-AKT gene may be useful for selecting patients fit for conservative management. Oral progestins, medroxy progesterone acetate (MPA) and megestrol acetate are the hormonal agents commonly used. There are many cases reported, of successful pregnancy with ovum preservation and in-vitro fertilization in a host uterus. It is important to be vigilant while managing PCOS to detect endometrial hyperplasia at early stages.

EP131

Relationship between advanced maternal age and pregnancy outcome

Samarawickrama SAH¹, Senarathne RRTN¹, Rodrigo WN¹,
Lelwala TM².

¹Fetal Medicine Clinic, Asiri Surgical Hospital, Colombo, Sri Lanka.

² Homagama Base Hospital, Sri Lanka.

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

Method: From January 2015 to May 2017, 101 patients with advanced maternal age (>40 years) were seen. 71 patients had completed their pregnancy and others are still being followed up. Pregnancies were followed up with high risk fetal maternal assessment and serial ultrasound scans until their delivery.

Results: In this study group, 7 patients were more than 45 years of age and 12% had to undergo assisted reproductive techniques to achieve their pregnancy. 6 patients had to undergo amniocentesis and 6 underwent NIFTY. Prevalence of pre-existing Diabetes mellitus was 17% and pre-existing hypertension was 12%. Among who delivered 75% were term deliveries and 25% were preterm deliveries. 17% resulted in miscarriage. Out of 58 who had live births 5% had congenital anomalies. One patient had a placental abruption. 9% of the study group had oligohydramnios. 16% had GDM and 11% were found to have pregnancy induced hypertension.

Conclusions: Advanced maternal age is associated with more adverse maternal and fetal outcomes and women should have pre-pregnancy counselling regarding these outcomes. Women should be encouraged to conceive when they are young. Pre-pregnancy medical optimisation should be done in older patients. Adverse outcomes should be anticipated with advanced maternal age and high risk management should be provided to these women.

EP132

A comparison of blastocyst stage and cleavage stage embryo transfers in frozen embryo replacement cycles

Hapangama H, Karunaratne N, Ralapanawe M, Weerakkody, G, Liyanage L, Gajaweera L.

Lanka Hospitals Corporation PLC, Sri Lanka.

Objective: Blastocyst transfers have been shown to provide higher implantation rates when compared to cleaved embryo transfers due to better embryo selection and better embryonic and uterine synchronization at the blastocyst stage. Our aim was to compare the implantation rates between blastocyst and cleaved embryo transfers obtained from culturing vitrified cleaved embryos, and predict the probability of continuing with a viable pregnancy.

Method: A retrospective study was done at our Fertility Centre from October 2016 to April 2017 with 154 patients who opted for frozen embryo replacement (FER) cycles, who had embryos vitrified at cleavage stage. Of these patients, 76 underwent cleavage stage transfers, 71 underwent blastocyst transfers, and the transfers of 7 patients who opted for blastocyst transfers were cancelled due to absence of development after cleavage stage. The age of women for the cleavage stage transfers ranged from 26 years to 46 years and for blastocyst transfers ranged from 25 years to 46 years. Therefore, no significant difference was observed in age between the two study groups. A comparison was made between the implantation rates. Establishment of implantation was defined by a β HCG result $>10\text{mIU/ml}$ after 14 days of embryo transfer. Probability of a viable pregnancy was predicted for both study groups. Serum β HCG levels $>350\text{mIU/ml}$ was used as a marker in predicting the probability of a viable pregnancy.

Results: In the cleavage stage study group 19 patients and in the blastocyst study group 38 patients had β HCG levels $>10\text{mIU/ml}$. Hence, implantation rate for cleavage stage transfer was 25% and for blastocyst transfer it was 53% ($p<0.05$). 9 out of 19 patients in day 3 transfers and 30 out of 38 in blastocyst transfers had β HCG levels $>350\text{mIU/ml}$. Thus, it can be predicted that 42.1% for cleavage stage and 78.9% for blastocyst stage implantations ($p<0.05$) have a probability in continuing with a viable pregnancy. 9% transfers were cancelled in the blastocyst study group.

Conclusion: Our study showed that the implantation rate for blastocyst transfers in FER cycles was significantly higher than for cleavage stage transfers. Further more it can be predicted that blastocyst transfers have a significantly higher probability in continuing with a viable pregnancy.

EP133

Significant growth discordance in a dichorionic twin pregnancy with good fetal outcome

Jayalath JAVS, Lanerolle S, Gunathilake SNMPK, Siriwardhane DS.

Castle Street Hospital for Women, Colombo, Sri Lanka.

Introduction: Growth discordance in twin pregnancies is not only confined to monochorionic twins. Dichorionic twins are also vulnerable to develop growth discordance due to multiple physiological and pathological factors including congenital

anomalies, constitutional factors, congenital infections, cord and placental abnormalities. Placental vascular anastomoses causing discordant growth in dichorionic twins has been rarely reported.

Case report: A 38-year-old primigravida with sub fertility of 8 years was found to have DCDA twins at dating scan at 11 weeks. She had regular clinic followup and growth of both fetuses were assessed regularly from 16 weeks onwards. Fetal anomaly scan done at 22 weeks of gestation found to have no fetal anomalies. Growth of both babies was satisfactory till 24 weeks without any significant discordance. At 30 weeks of gestation it was found to have significant growth discordance (31.4%) with larger twin weighing 1349 grams (Abdominal circumference 238mm) and smaller twin weighing 925 grams (abdominal circumference 194mm). Both fetuses had normal umbilical artery Doppler indices. Continuation of pregnancy with regular growth and Doppler assessments were planned till 32 weeks. At 32 weeks of gestation she was admitted to ward for reassessment and found to have abnormal umbilical artery blood flow (umbilical artery pulsatile index of both fetuses being more than 95th centile). Babies were delivered by emergency caesarean section after completion of Antenatal Corticosteroids for lung maturity and Magnesium Sulphate for neuro protection. Larger baby was 1510 grams and smaller baby was 957 grams (discordance was 36.6%). Both babies were healthy with no features of malformations or infections. There was significant weight discordance of the placentae with few anastomosing vessels between them across the inter-twin membranes.

Conclusion: Growth discordance in dichorionic twins is less common compared to monochorionic twins. Serial growth assessment from 16 weeks onwards is recommended to detect growth discordance in twin pregnancies. Serial growth assessments and Doppler assessments are required in managing growth discordant DCDA twins. Timing of delivery should be planned mainly on growth and Doppler parameters of healthier twin.

EP134

Snake bite in pregnancy: A rare case report

Perera MNI¹, Suthakaran V¹, Kajendran J¹, Dias TD².

¹Professorial Obstetrics and Gynaecology unit, North Colombo Teaching Hospital, Ragama, Sri Lanka.

²Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Kelaniya, Sri Lanka.

Introduction: Snake bite in pregnancy appears to be uncommon. Only few cases have been reported in the literature. Venomous snake bite in a pregnant woman may lead to poor outcome for both mother and the fetus. Anti-venom causes anaphylactic reactions that may have adverse effects on the mother or fetus.

Case report: A 31-year-old G2P1C1, at 11w 3d of gestation presented one hour following a snake bite on her right foot. On admission, she was conscious and oriented. She was complaining of abdominal pain. Her vital signs were stable. There was an induration and erythema with fang marks on the right foot. Systemic examination was normal. On abdominal examination, there was suprapubic tenderness. Patient was kept under close observation and was investigated with coagulation profile as well as whole blood clotting time (WBCT) test which was repeated six hourly. Ultrasound scan confirmed a viable intrauterine pregnancy. Her third WBCT was delayed with prolonged clotting profile. She was treated with polyvalent anti-venom serum (AVS) and was given ICU care. Patient recovered

completely. Though she was discharged after three days of hospitalization her pregnancy ended up with miscarriage one week later.

Discussion: Snake bite is not common in pregnancy. Studies from Africa, India and Sri Lanka revealed that pregnant women accounted for 0.4% to 1.8% of hospitalized snake bite victims. Snake bite carries significant fetal wastage (43%) and maternal mortality (10%). Snake venom is a complex mixture of enzymes which lead to tissue injury, systemic vascular damage, haemolysis, fibrinolysis and neuromuscular dysfunction culminating in either haematological symptoms or neurological manifestations. The common adverse obstetrical events occurring due to snakebite are miscarriage, IUD, and premature labour. Mechanisms which causes fetal death are; fetal anoxia associated with maternal shock after envenomation, abruptio placentae, premature uterine contractions initiated by venom, pyrexia and cytokines released after tissue damage, maternal haemorrhage leading to acute fetal anaemia, supine hypotension syndrome and anaphylaxis to AVS. Anti-venom serum can cause anaphylactic reactions which may have an adverse effect on the mother or fetus. Though the fetal death rates up to 55% to 85% has been reported in mothers given AVS, most authors have recommended anti-venom administration for snake bite during pregnancy. While the safety of anti-venom is unclear in pregnancy, the risks of withholding, likely outweigh the risks of administering in needy patients.

EP135

A Case report of atypical presentation of Dengue haemorrhagic fever with acute fulminant liver failure and hepatic encephalopathy in Pregnancy.

Ethayarooban E, Watthuhewa DY, Senthilnathan PG, Perera MNI, Atapattu AMRK, Visagan S.
De Soysa Hospital for Women, Colombo, Sri Lanka.

Background Dengue fever has a wide range of clinical spectrum making the diagnosis and management a challenge. Its spectrum ranges from asymptomatic to life threatening complications. Normal physiological changes in pregnancy and gravid uterus make clinical monitoring difficult. The symptoms, signs, and laboratory investigations may mimic other complications of pregnancy such as preeclampsia and HELLP syndrome. There is an increased incidence of miscarriage, preterm labour, abruptio placentae and death in utero. Hence, early diagnosis of dengue fever with atypical presentations is important in managing the patients.

Case report A 23-year-old woman with her second ongoing pregnancy at 26 weeks of gestation was admitted with the complaint of shortness of breath of one-day duration. She gave no history of fever or other evidence of respiratory tract infection. She did not have a history of chronic respiratory disease or other medical illnesses. She was found to have mild tachypnoea (32/min) and tachycardia (100/min) but the saturation was 98% on air. Fetal movements were satisfactory. She did not have any bleeding manifestations. Routine investigations showed a low platelet count (10000/mm³) and haematocrit was 51. Ultrasound scan revealed IUD, moderate amount of free peritoneal fluid, and pleural effusion. Suspicion of Dengue haemorrhagic fever confirmed with positive antigen as well as IgM antibodies. Liver functions were deranged (ALT-2378 IU/l, AST-4310 IU/l) and patient developed DIC. Her liver enzymes increased further and total bilirubin was 2.95mg/dl with the direct bilirubin 2.2mg/dl. Her serum ammonia levels rose up to 145µg/dl. She developed hepatic encephalopathy

grade 3 and intermittent hypoglycaemic attacks. After two days of ICU admission, she delivered a fresh still born baby. She was managed by team including Obstetrician, Physician, Haematologist, Gastroenterologist and Anaesthetist and fully recovered.

Discussion Dengue fever in pregnancy with atypical presentations is increasing in Sri Lanka and there are maternal deaths reported. Early Diagnosis and timely interventions will save the mother's life. Other differential diagnosis including hepatitis, HELLP syndrome, Sepsis following intrauterine death should be considered. Further research is needed to evaluate the complications in pregnancy, and effects on the mother and the fetus.

EP136

A case report of severe abdominal and pelvic sepsis due to Clostridium difficile

Sumanathissa RPJ, Lanerolle S, Gunathilaka SNMPK, Weerakoon WAB.

Castle Street Hospital for Women, Colombo, Sri Lanka.

Background: Clostridium difficile causes diarrhoea that ranges from a benign to a life-threatening pseudomembranous colitis. It has rarely been isolated in extra-intestinal infections.

Case: A 31-year-old mother of one child was admitted with colicky abdominal pain, nausea for one day of duration at a period of amenorrhoea of 19 weeks. Ultrasound scan (USS) noted intrauterine viable fetus and dilated bowel loops with pelvic free fluid. Subsequently she developed preterm pre-labour rupture of membranes (PPROM) and aborted the following day. Following the miscarriage, she developed an acute abdomen, tachycardia and hypothermia with USS evidence of dilated bowel loops with ascites. Biochemical investigations were suggestive of bacterial infection. Intravenous broad spectrum antibiotics were started following cultures which became negative later. Exploratory laparotomy revealed paralytic ileus with ascites. Postoperatively she was managed with IV Piperacillin, potassium replacement and bowel decompression. Since post-op day 1 she developed profuse diarrhoea. Stool culture was negative and stool for *Clostridium difficile* toxin assessment became positive which was done as there was a poor response to antibiotics for 7 days. Then she was started on oral Vancomycin and continued for 14 days where she gradually improved.

Conclusion: Association of clostridium difficile with PPRM and second trimester miscarriage has not yet been established. This case elaborates on differential diagnosis when a patient present with nausea, diarrhea and features of sepsis with severe paralytic ileus when laparotomy is negative for septic foci.

EP137

Are we in the fast track with regard to post-operative management of gynaecological surgeries: A clinical audit

Sumanathissa RPJ¹, Jayawardhane NNS¹, Gunathilaka SNMPK², Gnanarathna S¹, Hemapriya S¹.

¹Teaching Hospital, Kandy, Sri Lanka.

²Castle Street Hospital for Women, Colombo, Sri Lanka.

Objectives: The model of 'fast-track surgery', namely enhanced recovery after surgery (ERAS) comprises various strategies to improve conditions and recovery from surgery. It targets faster release from hospital and more rapid resumption of day-to-day activities after both major and minor surgery. The model

comprises pre-operative, intra-operative and post-operative strategies. Out of those post-operative measures include effective pain relief, early ambulation and early oral hydration and nutrition. We mainly assessed the last two components.

Design, setting and methods: This was a clinical audit conducted in ward 05, Teaching hospital, Kandy for a period of two months. We considered mainly two components, 1. Early ambulation 2. Early oral hydration and nutrition of ERAS in major gynaecological surgery.

Results: Of the 54 major gynaecological procedures, 36 (66%) were done under general anaesthesia (GA) and 18 (33%) were done under spinal anaesthesia (SA). None of them were mobilized within first 6 or 12 hours. Almost all of them were mobilized on the following day morning with a mean time of 16.8 hours irrespective of the type of anaesthesia. Oral sips of clear fluids were considered only after first 6 hours. But for SA and GA mean time of starting oral sips were 10.4 hours and 16.2 hours respectively. Oral diets were started only on post-operative day 1 irrespective of the mode of anaesthesia; the mean time was 18.5 hours. 52 (96.3%) were discharged on day 3.

Conclusions: According to the guidance given by ERAS, current practice is far deviated from the standards. It is not a simple task to implement a new protocol in post-operative management as post-operative complications were minimal and majority were discharged on day 3 which is acceptable. We decided to change the ward protocol according to ERAS and re-audit in 6 months.

Corrigendum

1. The following abstracts which were included in the Sri Lanka Journal of Obstetrics and Gynaecology Volume 39; Supplement 1, August 2017 have been subsequently withdrawn and should not be quoted as publications.

Page 3 BO008

Endometrial scratching improves implantation in previously failed IVF-ET cycles

Neeta_S, Venamail P, Sunesh K.

Department of Obstetrics & Gynaecology, All India Institute of Medical Sciences (AIIMS), New Delhi.

Page 5 BO011

Empirical use of low molecular weight heparin for women with history of implantation failure in IVF cycles

Neeta_S, Rohitha SK, Vanamail P.

Department of Obstetrics & Gynaecology, All India Institute Of Medical Sciences, New Delhi, India

Page 15 IO039

Post-Partum Haemorrhage – still the top Obstetrical Emergency

Shirin_F, Ferdous J, Begum N, Islam F.

Department of Obstetrics & Gynaecology, Chittagong Medical College & Hospital, Chittagong, Bangladesh.

Page 30 EP34

Is the symphysio- fundal height chart plotted appropriately during antenatal follow up in rural areas with limited access to essential obstetric care?

Kajendran J, Somarathna PGKM.

Base Hospital, Deniyaya, Sri Lanka.

Page 41 EP65

Assessment of knowledge of cervical cancer transmission and prevention among the mothers of daughters aged below 10 years.

Sharmin ZK.

Green Life Medical College & Hospital.

Page 45 EP77

Awareness and acceptance of contraceptive methods among post partum women from a rural area with limited access to essential obstetric care.

Kajendran J, Somarathna PGKM.

Base Hospital Deniyaya, Sri Lanka.

Page 51 EP94

A case of pregnancy in a patient with bilateral mastectomy and chemotherapy following carcinoma of the breast due to BRCA 1 mutation

Kumarasamy R.

Orange Health Services, Orange, Australia.

Page 53 EP99

Actinomyces: presenting with a large pelvic mass

Agalya Sivakumar A, Harris F.

East Lancashire Hospitals NHS Trust, United Kingdom.

Page 57 EP109

Nodular Hyperplasia of Bartholins's Gland in a young woman: now presenting bilaterally

Sivakumar A, Frances, H.

East Lancashire Hospitals NHS Trust, United Kingdom.

Page 59 EP115**Huge uterine leiomyomas, simulating ovarian malignancy**

Maharjan R, Jitendta P.

Civil Service of Nepal, Minbhawan, Kathmandu, Nepal.

Page 67 EP138**Cervical intraepithelial neoplasia: loop electrosurgical excision procedure (LEEP) is an effective treatment modality**

Maharajan R.

Civil Service of Nepal, Minbhawan, Kathmandu, Nepal.

2. Due to an oversight during the editorial and printing process the order of authors' names that appeared in the Sri Lanka Journal of Obstetrics and Gynaecology, Volume 39; Supplement 1, August 2017, was incorrect and should be corrected as follows.

Page 4 BO010**Effect of Serum Progesterone levels prior to hCG trigger on success rates of IVF treatment in a group of Sri Lankan women**

Kaluarachchi A¹, Wijeratne S¹, Seneviratne HR², Batcha M², Kaluarachchi DP², Weerawardhana CD¹, Chathumal SMDJ¹, Kowshika S¹, Mudali AK¹.

¹. Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo.

². Vindana Reproductive Health Centre, Colombo.

Page 6 CO014**Maternal heart disease and pregnancy outcome: Experience in a single unit in a tertiary care hospital**

Kaluarachchi A, Senanayake HM, Wijeyaratne CN, Jayawardane IA, Rishard MRM, Jayasundara DMCS, Kowshika S, Mudali AK, Weerawardhana CD, Chathumal SMDJ.

Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo.

Page 27 EP24**A case series of V-Y flap for vulval reconstruction**

Kannangara S¹, Sivachandran S¹, Pushpakanthan EJ².

¹Apeksha Hospital, Maharagama, Sri Lanka.

²Base Hospital, Maha Oya, Sri Lanka.

Page 48 EP 84**A case of peripartum cardiomyopathy complicated with schizoaffective disorder**

Jayewardene MAMM¹, Pathiraja RP¹, Silva KCDP¹, Jeewantha RD¹, Rubasinghe AJ¹, Weerasinghe AM¹, Herath CMB¹.

¹Department of Obstetrics and Gynaecology, Colombo South Teaching Hospital, Kalubowila.

²Department of Gynaecology, Teaching hospital, Kandy.

Page 54 EP 103**A case report of management of atypical endometrial hyperplasia in a young female with primary subfertility.**

Samarakkody SN¹, Sirisena PLA¹, Raguraman S¹, Perera MAK¹, Edirisinghe CA¹.

De Soysa Hospital for Women, Colombo, Sri Lanka.

Page 61 EP 121**An audit on adherence to guidelines when obtaining consent for surgical procedures at Unit 03/04, Castle Street Hospital for Women, Colombo.**

Rajeevan J¹, Pallemulle L¹, Prasanga DPGGM¹, Musthaq ACM¹, Silva PGYS¹, Hamzathwany R², Chandrasighe SK¹.

¹Castle Street Hospital for Woman, Sri Lanka.

²Faculty of medicine, University of Jaffna.

Author Index

Abdul Basith, FD	AO001
Abeygoonasekera, S	EP101
Abeygunasekara, AD	EP35
Abeykoon, W	CO012, EP41, EP66
Abeykoon, W	EP31
Abirame, R	EP60
Adicaram, DRS	AO006
Aloysious, B	EP90
Amarapathi, PWCJ	FO029, EP74
Amarasekara, AMAKG	GO033
Amarasena, BA	EO027, JO044, JO046
Antonythas, R	AO001
Ariyananda, D	AO006
Ariyawansa, G	KO047, KO050
Atapattu, AMRK	EP135
Athulathmudali, SR	KO052, EP29, EP59, EP60, EP68, EP78, EP79, EP85, EP106, EP112, EP130
Attanayake, MMKN	GO032, EP43, EP82, EP102
Bag, DN	EP52
Balagobi, B	EP35
Bambaranda, BGIK	CO016, IO042, EP92, EP98, EP100, EP117
Banagala CSM	EP41
Bandara, HGWAAC	FO029, EP47, EP74
Bandara, HGWAP	CO012, EP66
Bandara, HGWK	KO048
Bandara, S	EP19, EP50
Basnayake, BMSB	EP96
Batcha, M	BO010, EP104
Begum, B	FO031
Begum, F	EP13
Begum, N	IO039, IO040, EP04
Bhabu, B	EP97, EP123
Bishmita, M	EP52
Bodhinarayana, TN	KO049, EP06, EP53, EP55, EP58, EP110
Bogahapitiya, BMANB	EP12
Chandrasinghe, SK	FO030, EP68, KO052, EP85, EP112

Chathumal, SMDJ	BO010, EP104, CO014
Chinthana, HDK	EP29
Costa, YJ	EP88
Dalpladathu, U	EP101
Dasanayake, DLW	EP125
Dayabandara LRM	AO006
De Alwis, HDM	EP23
De Silva, BPGN	KO049, EP06, EP53, EP55, EP110, EP126
De Silva, D	EP101
De Silva, G	EP19
De Silva, PHP	EP16, EP32, EP33, EP48, EP111
De Silva, R	CO015, EP 23, EP70
Deshan, VGU	AO003
Dewasinghe, RV	EP09
Dias, TD	HO035, HO036, HO038, EP30, EP36, EP134
Dilruvan, MANP	EO024, EO026
Dissanayake, AD	DO021, EP35, EP83, EP126
Dissanayake, TB	EP73
Dolapihilla, SNB	CO012, EP66
Edirisinghe, CA	EP103
Eidiriweera, DS	HO036
Ekanayake, CD	AO001, GO033
Ekanayake, G	EP101
Ekanayake, SB	CO012, EP09, EP012, EP18, EP66, EP67, EP116
Elankumaran, V	EP97, EP123
Ethayarooban, E	EP135
Eustace, D	EP108
Fahim, SM	EP42, EP98, EP100, EP122
Fatima, P	EP13
Ferdous, J	IO039, IO040
Fernando, SSS	EP15
Fernandopulle, RC	KO051
Gajaweera, L	EP132
Galketiya, KB	EP75
Gankanda, WI	EP42, EP95, EP100, EP122
Gihan, MC	EP37, EP42, EP95, EP98, EP100, EP122
Gnanarathna, DMST	EP26, EP27, EP76
Gnanarathna, S	DO020, CO017, EP137
Goonawardena, CSE	KO051
Goonawardene, IMR	EO024, EO026, EP125, EP127 , JO044, JO046
Gunarathne, PM	EP108

Author Index

Gunaratne, MDSK	KO049
Gunasekera, D	EP75
Gunasinghe, ADHN	GO032, EP29, EP43, EP78, EP79, EP82, EP102, EP106, EP130
Gunathilaka, SNMPK	AO002, EP08, EP14, EP25, EP45, EP64, EP76, EP89, EP93, EP119, EP133, EP136, EP137
Gunawardena, K	DO021
Gunewardena, S	GO034
Guruparan, K	EP39
Hamza, AH	EP81
Hamzathwany, R	DO019, FO030, EP63, EP129
Hapangama, H	EP105, EP132
Hapuachchige, C	EP106
Hapuarachchi, C	KO048, EP78, EP130
Harris, F	EP99, EP109
Hemapriya, S	CO012, EP76 CO017, EP30, DO020, EP114, EP137, DO021
Herath, CMB	EP09, EP012, EP18, EP21, EP67, EP69, EP84, EP116
Herath, HMPS	KO049
Herath, HMRP	EP36
Herath, HRBM	EP88
Herath, RP	DO018
Hettiarachchi, HNT	EP89
Higgoda, E	EP67
Hitinayake, HMGSB	AO004
Illankoon, IMPS	KO051
Islam, F	IO039, IO040
Jayalath, HPI	AO003, EP16, EP32, EP33, EP48, EP111
Jayalath, JAVS	AO002, EP08, EP25, EP29, EP45, EP64, EP78, EP79, EP89, EP93, EP106, EP119, EP130, EP133
Jayantha, N	EP19
Jayasekera, NMTC	CO012, EP66
Jayasinghe, AD	EP126
Jayasinghe, JP	EP96
Jayasundara, DMCS	CO014, EP37, EP122
Jayasundara, JMSW	EP125, EP127
Jayawardane, IA	EP37
Jayawardane, LA	CO014
Jayawardane, MAMM	CO013, EP15, EP21, EP35, EP72, EP84, EO028, EP69
Jayawardena, M	EP35
Jayawarhane, NNS	EP137
Jayawickrama, SR	CO012, EP66
Jeewantha, RD	CO013, EP15, EP21, EP35, EP72, EP84, EP69
Jegavanathan, A	CO012, EP66

Jithendra, P	EP115
Johar, G	AO004
Kajendran, J	EP34, EP62, EP77, EP134
Kalaimaaran, P	DO019, EP11, EP44, EP49, EP50, EP91, , EP129
Kaluarachchi DP	BO010
Kaluarachchi, A	BO010, EP42, EP95, EP98, EP100, EP104, EP117
Kандауда, C	EP11, EP44, EP49, EP50, EP91, EP96
Kannagara, S	EP24
Kariyawasam, GLD	EP09
Karunarathna, M	EP19
Karunarathne, N	EP105, EP132
Karunarathne, SMG	KO049, EP06, EP53, EP55, EP110
Karunasigha, J	EP38
Karunathilake, Y	JO045
Karuthan, C	AO004
Kathriarachchi, S	JO045
Khatu, S	EP124
Kishokumar, T	EP81
Kodithuwakku, KASUA	EP08, EP14, EP30, EP31, EP64, EP76, EP89, EP120
Kodithuwakku, NW	CO012, EP66
Kogulan, T	CO012, EP66
Kowishika, S	CO014, BO010
Kularathne, A	CO012, EP66
Kulasinghe, IRMM	GO033, HO038
Kumarasamy, R	EP94
Kumarasinghe, HMS	AO003, EP16, EP32, EP33, EP48, EP111
Kumari, RA	EP05
Kunatheesan, P	EP71
Lanerolle, S	AO002, EP08, EP14, EP25, EP45, EP64, EP76, EP89, EP93, EP119, EP133, EP136
Lelwala, TM	EP46, EP131
Liyanage, L	EP132
Liyanage, LLC	GO033
Madumali, HGH	EP54, EP90, EP107, EP128
Maharajan, R	EP115, EP138
Mahendran, T	EP39
Manivannan, S	DO019
Mannanayake, KR	KO047, KO050
Mehedi, K	FO031
Mendis, BMIU	HO036
Mishra, M	EP52

Author Index

Moratuwagama, D	EP88
Mudali, AK	BO010
Mudali, AK	CO014
Muhunthan, K	EP39
Musthaq, ACM	FO030, EP14, EP31, EP76, , EP120, EP121
Naeem, MY	EP101
Nallaperuma, OL	EP75
Nawaz, JM	AO004
Nazneen, S	EP04, EP51
Neeta, S	BO008, BO011
Neththasingha, NMPJ	AO006
Nilanga, KKG	FO029, EP74, KO052, EP59, EP60, EP85, EP112
Niruthan, T	EP114
Padeniya, AGPM	HO035, HO036
Padeniya, AGTU	EP09, EP012, EP18, EP116
Pallemulla, LC	KO052, EP59, EP60, EP61, EP85, EP112, FO030, EP120, EP121
Panicker, V	IO041, IO043, EP86, EP113
Pannala, WS	DO023
Patabendige, M	DO018, EP62, EP68
Pathiraja, M	IO042
Pathiraja, RP	EO028, GO034, EP15, EP21, EP69, EP84, JO045
Pathmeswaran, A	AO001, GO033
Patra, S	EP52
Peiris, EE	AO001
Peiris, TR	AO001
Perera PLDM	EP41
Perera, HHS	GO033
Perera, MAK	AO005, EP87, EP103
Perera, MNI	HO038, EP36, EP134, EP135
Perera, PPR	KO051
Perera, RN	EO027, JO044, JO046
Perera, SLADCB	EP41
Perera, TGS	EP128
Perera, ULRM	EP128
Perera, WME	CO017, EP17, EP26, EP27, EP83
Perera, WME	DO020, EP114
Perera, YAG	DO022, GO02, EP43, EP82, EP102
Piyadigama, I	DO021
Prasanga, DPGGM	DO019, EP85, EP112, EP129, KO052, EP60, FO030, EP59, EP61, EP63, EP121
Prathapan, S	GO034

Premadasa, J	AO003
Premarathn	EP78
Priyadarshana, P	EP50
Punchihewa, C	HO035
Pushpakanthan, EJ	CO015, EP23, EP24, EP70, EP118
Raguraman, S	AO005, EP14, EP31, EP84, EP103
Rajeevan, J	DO019, EP44, EP59, EP60, EP61, EP63, EP129, FO030, EP120, EP121
Ralapanawe, M	EP105, EP132
Ramachandran, R	IO042
Rameez, MFM	EO024, EO026
Ranaraja, SK	EO025, EP58, EP75
Ranathunga, KGIS	EP83
Ranatunga, JD	DO023
Ranawakage, DJ	EO028
Ranaweera, AKP	CO016, EP117
Randeniya, C	EP54, EP90, EP107, EP128
Rankothkumbura, JP	EP75
Rasanjalee, ED	EP89
Rathigashini, R	CO016, EP92, EP117
Ratnasiri, UDP	EP83, EP126
Ratnayake, NMNB	DO022
Rishard,MRM	CO014, EP95, EP98, EP100
Rodrigo, WN	EP46, EP131
Rohitha, SK	BO011
Rubasinghe, AJ	EP21, EP69, EP84
Rupasinghe, PD	KO047, KO050
Ruwanpathirana, SA	EP40, EP56, EP80, EP81
Ruwanpura, LP	EP29, EP72, EP78, EP79, EP106, EP130
Salih, FA	EP107, EP128
Salih, R	EP54
Salinda, S	EP41
Samarakkody, SN	AO005, EP87, EP103
Samarasinghe, K	KO047, KO050
Samarathunge, UY	DO021
Samarawickrama, LPU	CO013
Samarawickrama, NGCL	CO013, EP09
Samarawickrama, SAH	EP46, EP131
Sameera, RMIJ	EP83
Samsudeen, F	EP95
Sandaruwan, NKTS	GO032, EP43, EP82, EP102

Author Index

Sanjeevan, K	EP97, EP123
Sanjeevani, D	IO042
Senanayake, HM	CO014, IO042
Senanayake, HMS	CO016, EP92
Senarathne, RRTN	EP46, EP131
Seneviratne, HR	BO010, EP104
Senthilnathan, G	EP47, EP135
Sharmin, F	EP13
Sharmin, ZK	EP65
Sheyamalan, SH	HO037, EP57
Shireen, MRF	EP31
Shirin, F	IO039, IO040
Shivakaran, Y	EP56
Sigera, RC	KO047, KO050
Sijethara, S	EP118
Silva, KCDP	CO013, EP21, EP69, EP72, EP84, EO028
Silva, PGYS	DO019, , EP129, FO030, EP121, KO052, EP61
Singh, S	EP52
Sirirsena, TS	CO012, EP66
Sirisena, PLA	AO005, EP87
Siriwardana, SMA	EP38
Siriwardhane, DS	AO002, EP08, EP25, EP45, EP64, EP89, EP93, EP119, EP133
Sithambarapillai, A	BO009
Sivachandran, S	CO015, EP23, EP70, EP118
Sivakumar, A	EP99, EP109
Sivomiya, S	EP97, EP123
Somarathna, PGKM	EP34, EP77
Soyza, EKN	EP107
Sritharan, A	DO019, EP63, EP71, EP129
Suhunthan, N	EP71
Sumanathissa, RPJ	CO017, EP14, EP17, EP26, EP27, EP30, EP64, EP88, EP136, EP137, DO020, EP114
Sunesh, K	BO008
Suthakaran, V	EP28, EP36, EP71, EP134
Thanuya, M	EP40, EP80, EP81, EP97, EP123
Tharmini, D	EP11, EP49
Thuvarathipan, R	EP39, EP42, EP81, EP95, EP97, EP100, EP122, EP123
Udayakumara, EAD	EP101
Vanamail, P	BO011, BO008, BO011
Visagan, S	EP135
Wansapura, K	EP67

Watthuhewa, DY	EP135
Weerakkody, G	EP105, EP132
Weerakoon, WAB	EP08, EP45, EP136
Weerakoon, WMG	CO012, EP66
Weeransinghe, AM	EP21
Weerasekera, DS	KO047, KO050
Weerawardhana CD	BO010, EP104, CO014
Wickramaratna, DKU	AO001
Wickramasinghe, PA	EP28
Wickramasinghe, R	EP75
Wickramasinghe, WMRPTB	EP58
WijEPala WAMJP	EP28
Wijeratne YMTY	EP58
Wijeratne, S	BO010, EP104
Wijesinghe YMTY	EO025
Wijesinghe, PS	AO001, EP36, EP88
Wijesinghe, PS	DO023, GO033
Wijesinghe, R	IO042
Wijesinghe, RD	AO006, CO016, EP92, EP117, EO025
Wijethilaka, BHWMI	CO017, EP114
Wijetunge, S	EP75
Wijewardana, G	EP50, EP91
Wijeyaratne, CN	CO014, EP92
Williams, HAS	EP88
Withanathanthrige, MR	CO013, EP72