ORAL PRESENTATIONS

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Category A: Antenatal care, labour, postpartum care

AO 001

Outcome of 48 hours Foley induction as a method of cervical ripening – unit experience at District General Hospital Matale

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Introduction and Objectives: Induction of labour (IOL) is a commonly performed obstetric intervention. In cases where waiting for spontaneous onset of labour can possibly harmful for maternal or fetal health, IOL is planned.

Rate of caesarean section is steadily increasing despite the risk associated with caesarean delivery. Studies have found that there is a 2 fold increased risk for caesarean delivery with induction of labour compared to spontaneous labour.

Failed induction is a significant contributor for emergency caesarean sections. As in low resource settings, most of the time past caesarean sections ended up in repeat elective caesarean sections due to lack of intrapartum monitoring and emergency theatre facilities. Therefore, reducing the first caesarean section is one of the crucial step to reduce the number of caesarean sections carried out in Sri Lanka. However, selecting an optimal method of cervical ripening is always debated. Foley induction is proven successful method but varieties of implementing the method are widely seen such as the volume of infusion, applying the traction and duration of keeping the Foley.

Methods: Labour induction was carried out at term by Foley induction with 60 ml of normal saline without traction and kept for 48 hours. Favourable cervix were sent for IOL. Artificial separation of membranes (ASM) were not done in these patients and ASM patients were analysed separately.

We analyzed prospectively all the deliveries except elective caesarean sections from February 2019 to May 2019 at District General Hospital Matale. Success rates of induction was calculated by the mode of delivery.

Results: Of 316 Vaginal deliveries 160 were spontaneous vaginal deliveries. Foley induction was carried out in 135 patients (42.1%). Of them 98 (72.5%) delivered vaginally. Five (3.7%) patients had to undergo caesarean section due to unfavourable cervix. Thirty-two (23.7%) inductions ended up in emergency caesarean sections and indications for the majority were lack of progress 14 (43.7%) and fetal distress 12 (37.5%).

Conclusions: Forty-eight hours Foley induction for cervical ripening is a successful method with significantly reduced adverse fetal and maternal outcomes.

AO 002

Midwifery staff experience and attitude towards fetal and maternal monitoring system in labour ward management; a focused group discussion

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Background: Intra-partum and post-partum monitoring has a major impact on perinatal and maternal mortality in Sri Lanka. It is a very common complaint and mistake when inquiring in to individual incident, that maternal and fetal

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monitoring haven't been done properly and not informed appropriately. Very few studies have been done on possible reasons for mistakes occurring in observation by midwifery staff and their attitudes towards current monitoring system.

Method: A qualitative study, involving six focused groups, consisting midwifery staff working in different labour wards in Colombo south teaching hospital. Demographic data of each participant was taken. The barriers and difficulties in labour ward monitoring and their attitudes and suggestions to escalate maternal and perinatal outcome were discussed.

Results: Midwifery trained nursing officers and midwives, all together 18 participants in total 6 groups. Three main key topics were emerged during the discussion. 1) lack of number of labour ward staff to provide one to one care. 2) time to time variation, in support given by medical officers (including intern house officers and registrars) with annual rotation. 3) low attitude and poor knowledge among midwives on modern peripartum monitoring methods (according to midwifery trained nursing officer's point of view)

Conclusion: A number of barriers and practical errors exist in monitoring which can be escalated by proper organized educational programs including both theoretical and practical components on evidence based peripartum monitoring. Specially the backwards attitudes among midwives should be well addressed and they should get involved in all fetal-maternal monitoring as same as midwifery trained nursing officers. Responsibilities and duties of each professional should be well defined in labour ward management. Should have a better idea on prioritization especially where there is lack of staff to give one to one care.

AO 003

Audit on practice of intra partum antibiotic prophylaxis

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Introduction: Group B streptococcus (GBS) is found in 30% of adult's colonic flora which is frequently responsible for early onset neonatal infection. The main route of neonatal infection is from vagina during delivery which carry significant neonatal morbidity and mortality. Intra partum antibiotic prophylaxis to high risk women will reduce the incidence of culture positive neonatal infection and subsequent adverse outcomes.

Aim:

- Identify high risk women for early onset of neonatal GBS infection
- Determined adequacy of treatment for women with recognized risk factor
- Highlight and rectify any deficiencies in practice

Study design, material and method: This retrospective audit conducted in obstetrics unit, Sri Jayewardenepura General Hospital, Sri Lanka in the period between 15th June 2018 to 14th September 2018. Women with risk factors for early onset neonatal infection included in this audit. Consecutive sampling technique was used to collect data during the study period. Data was collected from bed head ticket and other relevant pregnancy records which were entered in audit proforma. Data were analyzed in Excel.

Audit standards:

100% of high-risk women should receive intra partum intravascular benzylpenicillin as antibiotic prophylaxis regularly at least 4 hours before delivery. If there is a allergy to penicillin can consider cephalosporin or vancomycin.

- In preterm labour
- History of previous invasive GBS disease
- Known GBS carrier
- GBS bacteriuria or GBS urinary tract infection in current pregnancy
- Intra partum pyrexia (38°C or more)

Results: Out of 645 deliveries during audit period, 2 pregnant women had previous history of invasive GBS disease. All of them received intra partum antibiotic prophylaxis (100%). There were 3 known pregnant women with GBS carrier and two of them received intra partum antibiotic (66%). Two women known to be complicated with GBS bacteriuria in their current pregnancy but none of them received intra partum antibiotic. During the audit period there were 86 preterm deliveries and 17 of them (27.9%) received intra partum antibiotic which cover GBS. There were 29 documented cases of intra partum pyrexia. 18 mothers received intra partum broad spectrum antibiotics which cover the GBS during any time of their labour process.

During the audit period there were 4 cases of GBS isolated in newborn. Out of them, one was following preterm delivery, one had intra partum pyrexia during labour process and there were no risk factors identified in rest of 2 cases. In 97.5% of cases intravenous cefuroxime was used as intra partum antibiotic according to local antibiotics policy. Intra venous vancomycin was used in remaining cases due to history of cephalosporin allergy.

Conclusion: Antibiotic prophylaxis in pregnant women with previous history of invasive GBS and previous carrier status reasonably adheres to RCOG standards. But there is a huge deficiency in offering antibiotics prophylaxis in pregnant women with GBS bacteriuria in current pregnancy, preterm deliveries and intra partum pyrexia.

Main issues identified to be difficult to provide intra partum antibiotics are, preterm deliveries are presented in advanced labour where limited time window between admission to labour unit and delivery, poor documentation of risk factors, malpractice of intra partum management and lack of knowledge of health staff on indication for intra partum antibiotics prophylaxis.

With proper education on indication for prophylaxis and better documentation of risk factors before sending patient to labour unit can improve intra partum antibiotic prophylaxis receiving. Starting treatment in early stage of preterm labour may avoid time limitation. Frequent education of health staff and better communication will improve intra partum antibiotics prophylaxis to indicated patient and minimise adverse foetal outcomes.

Finding of this audit disseminated to the health care staff. Advice was given regarding importance of adherence to standard to improve the perinatal outcomes. Re-audit was planned in six months time.

AO 004

Comparative study on the use of first trimester GCT in the diagnosis of GDM

An observational study

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Introduction: Gestational Diabetes is emerging as one of the common medical problems among Sri Lankan women. Prevalence of GDM among is said to be around 10-15 % according to most of the studies. Similarly the number of cases identified has increased significantly after introducing Glucose Challenge Test during first trimester. This observational study compares some of the outcomes between mothers who had GCT in first trimester followed by 24-28 weeks OGTT and mother who had only OGTT at 24-28 weeks in District General Hospital, Kilinochchi.

Objective: Are we over diagnosing Gestational Diabetes by performing GCT.

Method: Details of mothers were collected retrospectively who are delivered from October 2018. First hundred mothers who have had GCT in first trimester were selected to one group, while first 100 mothers who had only OGTT around 24-28 weeks were in the other group. Patients who were already diagnosed with diabetes were excluded. Data collected on method of treatment they required (Medical Nutrition Therapy, Metformin or Insulin), number of babies who are more than 3.5 kg or less than 2.5 kg, number of patients who had polyhydramnios and number of deaths in utero.

Results: During the observation period there were 1228 deliveries in DGH Kilinochchi. Out of them 396 (31%) were diagnosed as GDM. From the group who has had GCT 28 (28%) diagnosed as GDM while 70 has had OGTT at 24-28

weeks. Subsequently 16 patients out of 70(22%) were diagnosed as GDM. Therefore frequency of diabetes among this group was 44%.

From group who has had only OGTT 21(21%) mothers were diagnosed with GDM while 79 had normal results. Hence there is a significant high rate of diagnosing GDM with use of GCT.

There is significantly high percentage of patients in GCT group achieve control of blood sugar only with medical nutrition therapy (68% Vs. 38%) whereas insulin requirement is significantly low (6% Vs. 14%). Percentage of babies > 3.5 kg was significantly low in GCT diagnosed GDM group (4% Vs. 11%) while the percentage of birth weight < 2.5 kg babies are more common (18% Vs. 6%). Polyhydramnios was also more frequent in OGTT group (12% Vs. 20%).

Conclusion: Using GCT as a screening tool has increase the number of patients diagnosed with diabetes. However this may be as a result of over diagnosis as only a small percentage of the require medication and only few had complications of GDM such as polyhydramnios and macrosomia. Therefore more extensive studies preferably RCT may be needed to assess the implementation of GCT in our practice

AO 005

Predictive effect of early pregnancy lipid profile and fasting plasma glucose on risk of gestational diabetes mellitus

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Background: GDM is defined as “glucose intolerance of any degree with onset or first recognition during pregnancy”. Generally, 3- 10% of the pregnant mothers are affected by it. The prevalence of it in pregnancy became doubled within last 8 years.

Objective: To determine the predictive effect of early pregnancy lipid profile and fasting plasma glucose on risk of GDM.

Material and Methods: It is a prospective cohort study in 172 pregnant women attending antenatal clinics at Teaching hospital Jaffna. Interviewer administered questionnaire and data extraction tools were used to collect data. Predictive effect of GDM, was estimated by calculating odds ratios (ORs) and 95% confidence intervals (CIs) in the multivariable logistic regression analyses.

Results: A total of 172 patients, with the mean age of 29.84 (± 5.38) years with the range of 18 to 42 years participated. In this study, prevalence of GDM was 16.9%. Among GDM mothers, 57.14% of them were obese. The mean values of FPG at First visit and at the POA between 24 to 28 weeks significantly differs. ($p=0.000$). The mean values of total cholesterol and LDL levels were higher than normal range in GDM mothers. This study showed significant correlation between TG level and FPG at the POA of 24 -28 weeks but couldn't find any correlation between Total cholesterol level, TG/HDL and LDL with FPG at first visit as well as FPG at POA 24 to 28 weeks. Based on ROC curve the appropriate cut off point for early pregnancy TG level calculated as 0.945 mmol/L with sensitivity 75% and specificity of 77.1%. Result of logistic regression analysis of TG had a significant relationship with GDM ($P<0.05$). Mothers who had early pregnancy TG level more than 0.945mmol/L had OR of 3.2 (95% CI: 0.3-28). FPG at first booking visit is significantly correlate with the FPG done at 24-28 weeks of gestation (paired t value-0.44; $p=0.01$). Based on ROC curve the cut off point for early pregnancy FPG level calculated as 3.94 mmol/L with sensitivity 91.7% and specificity of 74.2%. Mothers who had early pregnancy FPG level more than 3.45 mmol/L had OR of 3.81 (95% CI: 0.45-30).

Conclusion: According to this study. Early pregnancy FPG and TG level may be the potential markers for the prediction of Gestational diabetes mellitus. Predictive effect of FPG is higher than that of the TG level. But early pregnancy total cholesterol, LDL and TG do not predict the occurrence of GDM.

Key words: Gestational diabetes mellitus, lipid profile, Teaching hospital, Fasting plasma glucose, body mass index and period of amenorrhoea.

AO 006

Comparison of the effect of Misoprostol dose on management of first trimester missed miscarriages

An observational study

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Introduction: Misoprostol is widely used in the management of miscarriages and terminations throughout the world. However, the dose of misoprostol used is varied significantly. In fact different studies have suggested different dose regimens. Our aim was to compare the effectiveness and safety of two Misoprostol regimens we have been using in DGH Kilinochchi (Misoprostol 800 micrograms single dose Vs. 800 micrograms two doses 4 hours apart).

Note: Both these regimens were used only as in patients.

Methodology: This is a retrospective observational study. All the cases of missed miscarriages managed medically were assessed for a period of eight months. They were grouped according to the dosage regimen they received. Number of misoprostol cycles required, days of hospital stay, number of patients needed to have evacuation of retained products and the number of patients needed blood transfusion were studied. Endometrial thickness of 15mm was taken as the cut-off for completion of treatment.

Results: Total number of 148 cases of missed miscarriages was managed medically over the 8 months period. Eighty-four of them have received Misoprostol 800 micrograms single dose while 64 have received two doses. Fifty-nine patients from Misoprostol 800 micrograms group needed second cycle after 24 hours (76%) while only 28 patients needed it in double dose group (43%). Mean hospital stay for single and double dose was 3.7 and 2.6 retrospectively. Eighteen patients (21%) had ERPC in single dose group compared to 8 (12%) in double dose group. Two patients from each group have received blood transfusion due to significant haemorrhage.

Conclusion: Compared to single dose of 800mic Misoprostol, using it as two doses of 800 micrograms 4 hours apart carries a significant reduction in hospital stay, number of cycles and number of patients needing ERPC.

AO 007

Incidence of low birth weight deliveries at District General Hospital Matale

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Introduction and objectives: Incidence of low birthweight (LBW) has a geographical variation depending on multifactorial causes. Incidence of low birth weight is defined as birth weight of an infant of 2499g or less out of total live births in a given period of time regardless of gestational age. Low birthweight has short term and long term health impacts. Identifying the incidence leads to accurate policy making in child and maternal health in provincial level. This preliminary study was carried out to estimate the incidence of low birth weight in Matale area compared to the national level.

Method: We retrospectively analysed all the delivery details from the end of the January 2019 to the end of the June 2019 using the birth registry of District General Hospital Matale which covers the vast majority of deliveries of the district.

Results: There were 1932 deliveries. Of them were 321 (16.6%) low birth weight which is closer to the national level (17%) ($p > 0.05$). Of the LBW babies 127 (39.5%) were preterm deliveries and 309 (96.2%) were singleton pregnancies. 2 (0.6%) babies were extreme low birth weight and 25 (7.7%) were very low birth weight of the total LBW babies. The incidence of LBW in singleton term pregnancy is 9.9 % ($n=192$) There were 52% male fetuses and 48% female fetuses with LBW.

Conclusions: Low birth weight is mostly due to either prematurity or fetal growth restriction. Both of them have short- and long-term health implications such as increase mortality, morbidity and increase future risk of metabolic diseases. This study shows the LBW incidence is quite similar to the national level. Further prospective study is essential to associated risk factors for LBW in this population.

AO 008

Audit on documentation in emergency caesarean sections at District General Hospital Matale

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Introduction and objectives: Emergency caesarean section (CS) is the most significant emergency obstetric operative intervention. The level of fetal or maternal compromise decides the urgency of delivery. Category 1 CS is when there is immediate threat to the life of the woman or fetus, and category 2 CS is when there is maternal or fetal compromise which is not immediately life threatening. Usually in these cases priority is given to save the mother or fetus than the documentation. However, accurate and complete documentation is extremely important in the medico-legal point of view as these situations are more likely to be questioned again in front of the law and poor documentation is a major factor in litigation cases.

Method: We retrospectively analyzed randomly selected 53 bed head tickets of emergency caesarean sections between April 2019 to May 2019 in District General Hospital Matale. These caesarean sections were sent to the operation theatre from either labour room or direct admissions from the antenatal ward.

Results: Lack of progress, fetal distress and past caesarean section in labour were the commonest indications and they were 35.8%, 24.5% and 18.9% out of all the cases respectively. Time of decision by caesarean section was mentioned only in 30 (56.6%). Fifty cases (94.6%) had the documentation that the decision has been made by the consultant obstetrician. Indication for the emergency delivery was mentioned in 45 (84.9%) and consent was documented (98.1%) in all except one. Therefore, the decision to delivery interval (DDI) could calculate only in 30 cases with the mean of 67.5 minutes (SD 39.9) (Range 39 to 231 minutes). However, APGAR score of the infant was documented only in 7 (13.2%) cases.

Conclusions: Overall documentation in emergency setting is not satisfactory. Documentation of time of decision taken and indication for delivery also not satisfactory. This has lead difficulty in identifying DDI which is an important step of reducing mortality and morbidity of mother and the fetus in an emergency. Although obtaining consent is satisfactory, documentation of infant APGAR must be improved in order to prevent litigation. Data were planned to present in perinatal statistics meeting and re-audit is planned.

AO 009

Awareness, knowledge and the factors that affect the use of folic acid among pregnant and non-pregnant women in the reproductive age in a selected area in Colombo district

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Introduction and Objectives: The prevalence of NTD in Sri Lanka is estimated to be 1.21 per 1000 births. According to the WHO, programs to increase FA consumption among women of reproductive age may benefit countries where the NTD rate is higher than 0.6/1,000 live births. Food fortification is reportedly an effective method of improving FA intake. There is still no mandatory fortification policy in Sri Lanka. Therefore, improving knowledge and voluntary use of FA remains a high priority.

The study aimed to determine the awareness and knowledge on FA among women and FA use among pregnant women. Factors associated with FA awareness, knowledge and use were also determined.

Methods: A comparative cross-sectional study was carried out among 400 pregnant women and 400 non-pregnant women aged 18-45 years in a selected area in Colombo District in Sri Lanka. Data were collected using an anonymous, standardized, interviewer-administered questionnaire by an interpersonal interview. The questionnaire included questions about socio-demographic data, obstetric history, FA knowledge and use.

Results: 84.0% of non-pregnant women had FA awareness. 79.0% had knowledge on its pre-conceptional use. 98.5% of pregnant women used FA supplements. 44.9% had commenced supplementation pre-conceptionally, 50.5% in the first trimester.

FA awareness and knowledge on its pre-conceptional use were significantly low among non-pregnant women younger than 25 years (OR=0.120, 95%CI=0.068-0.211, p=0.000; OR=0.153, 95%CI=0.090-0.262, p=0.000).

67.7% of pregnant women and 47.0% of non-pregnant women had knowledge that FA prevents birth defects. Pregnant women with knowledge that FA prevents birth defects were significantly more likely to take FA during pregnancy (OR=10.760, 95% CI=1.244-93.068, p=0.007) and the pre-conceptional period (OR=1.807, 95% CI=1.172-2.786, p=0.007). Women who received information from field clinics were significantly more likely to have FA awareness (OR=4.779, 95%CI=0.913-25.021, p=0.042), knowledge on pre-conceptional use of FA (OR=2.972, 95%CI=1.179-7.491, p=0.016) and took FA during pregnancy (OR=39.773, 95%CI=4.542-348.271, p=0.000). Those who received information from home visits were significantly more likely to have knowledge on the role of FA in preventing birth defects (OR=1.958, 95%CI=1.133-3.384, p=0.015), took FA during their pregnancy (OR=15.102, 95%CI=1.743-130.841, p=0.001) and in the pre-conceptional period (OR=2.117, 95%CI=1.316-3.405, p=0.002).

Women who received information from the media were also significantly more likely to have knowledge on the role of FA in preventing birth defects (OR=2.487, 95%CI=1.006-6.149, p=0.042).

Conclusions: Health education campaigns regarding folic acid have to be specifically targeted for younger women, those who are from ethnic minorities and those who are from low household income families. Field clinics and home visits from public health midwives have been significant sources of information regarding folic acid for women.

Media campaigns can be effective means of promoting health education regarding folic acid.

There is a room to improve on the part of first contact care doctors in hospitals and general practitioners in promoting health education regarding folic acid intake.

AO 010

Predictive value of the Neutrophil to Lymphocyte Ratio (NLR) to predict the Development of Preeclampsia and Pregnancy Induced Hypertension (PIH) in 1st trimester

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Introduction: Hypertensive disorder in pregnancy affect 4% to 6% of all pregnancies and carries risks for the both baby and the mother. Only a few group of women who are at high risk are received prophylaxis Aspirin, but more than 15% of women develop preeclampsia with a single minor risk factor. At the moment several studies have introduced various biological predictive markers, however none of them are available in Sri Lankan setting to predict the development of PIH or preeclampsia. The objective of this study is to introduce a convenient, simple and cost-effective marker to predict hypertensive disorders in pregnancy at an early stage. This study also looks into the fact that the NLR can be calculated from 1st trimester routine full blood count without doing additional investigations.

Objective: To assess the association between Neutrophil to Lymphocyte Ratio in first trimester and the development of Hypertensive disorder in pregnancy among the pregnant women who are admitted to the Colombo North Teaching Hospital Ragama.

Methods: This was a descriptive cross-sectional study which compared the 1st trimester NLR value of normotensive, PIH and preeclamptic women. The study was conducted with a sample of 416, antenatal patients. Data was collected as separated three groups. NLR value was calculated separately and data was analyzed using SPSS software. ANOVA test was used to analyze the 3 categorical data. Post HOC test was carried out to assess the multiple comparison.

Results: The prevalence rates of PIH and preeclampsia among the pregnant women who were admitted to Ragama hospital were 8.6 percent and 5.7 percent respectively.

The mean NLR values of three groups were as following; normotensive group was 2.708, pregnancy induced hypertensive group was 2.650 and preeclamptic group was 3.789. There was a significant difference in NLR value between preeclamptic group and other two groups with P value of 0.000. There was no significant difference of the NLR vales of normotensive and pregnancy induced hypertensive groups. (P value of 0.894).

Conclusion: The 1st trimester NLR value of preeclamptic patients significantly increased comparing to normotensive women and NLR value can be used as a simple, feasible and cost-effective marker to predict the development of preeclampsia at 1st trimester.

AO 011

Maintenance of national partogram: A retrospective audit in a tertiary care center

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Introduction: Partogram is a graphical representation of labour process. It's an inexpensive, evidence-based tool to assess labour and its progression. It's also a guide for timely intervention in low resource settings. Partogram contain separate components to assess mother, fetus, and labour and involves documentation by different category of staff. One of the additional advantages of partogram is that it enables the health care workers to take individual management of labour within their own sphere of practice. At the same time it increases the workload especially when there is staff constrain.

Method: The objective was to assess the standards of maintenance of national partogram in labour ward in obstetric ward, Teaching Hospital, Kandy. A retrospective analysis of conveniently selected partogram was conducted in October, 2018.

Results: Total of 187 partogram were studied. Mean age was 27.4 and Mean gestational age was 38.4 weeks. Maternal vital parameters were documented in 134 (71.7%) cases. Contractions were documented only in 47 (25.1%) cases, in which 5 had substandard documentation. Action lines were drawn in 98 (52.4%) cases and alert lines in 92 (49.2%). But only 10 out of 22 (45.45%) high risk pregnancies had alert line documentation. These lines had been drawn in 82 (50.5%) cases among 164 uncomplicated deliveries. Fetal heart rate was documented in 180 deliveries (96.3%).

Documentation of fetal head descent abdominally was 31%. Second stage monitoring was very unsatisfactory. In total, 179 (95.7%) women had a vaginal delivery and 4 (2.1%) had caesarean section, in which 2 were due to lack of progression. Out of all deliveries, 178 (95.2%) neonates had good 1 minute and 184 (98.4%) had good 5 minute APGAR score. Neonatal resuscitation was preformed for 6 (3.2%) newborns.

Conclusion: Although neonatal outcome was satisfactory standard documentation and maintenance of partogram in our setting is poor. This can be improved by staff education and frequent auditing. After this audit, a specific seminar was conducted to the staff using SLCOG partogram training module.

AO 012

Audit on practice of dating ultrasound scans

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Background: Currently available evidence has proven that expected delivery date (EDD) calculation by early ultrasound scan (dating ultrasound scan) is superior to calculation by last menstrual period (LMP). Benefits of dating ultrasound scan includes better EDD prediction, lesser past dates inductions, lesser premature deliveries, earlier detection of multiple pregnancies, better accuracy of serum screening for aneuploidy, etc. According to International Society of Ultrasound in Obstetrics and Gynecology (ISUOG) practice guideline on “Performance of 1st trimester fetal ultrasound scans” published in 2013, pregnant women should be offered an early ultrasound scan between 11 weeks 0 days and 13 weeks 6 days to determine gestational age.

Objective: The objective was to assess the practice of dating ultrasound scan as recommended by ISUOG guideline.

Method: The audit was conducted at ward 18, Colombo South Teaching Hospital, Sri Lanka over the period of four weeks (1st of February 2019 to 28th February 2019). Pretested interviewer administered questionnaire was used to collect the data from mothers attended to antenatal clinics. Data was analyzed using SPSS software.

Results: 80 mothers were participated in the audit. 92.5% (74) of mothers belong to age category of 20-38 years, 0.02% (2) was teenage mothers and 0.05% (4) was elderly mothers. Majority of mothers (35%) were primi mothers, whereas 27.5% (22) of mothers in their second pregnancy and 26.1% (30) of mothers in their third pregnancy or above. Out of 80 mothers, 57.5% (46) mothers had booking visit before the 11th week of pregnancy and another 25% (20) mothers had booking visit between 11-14 weeks. Only 35% (28) mothers had undergone dating scan at due time (11 weeks + 0 days to 13 weeks + 6 days). Out of those 28 mothers, 78% (22) mother's dates were corrected by dating scan. 18 (22.5%) mothers had an ultrasound scan prior to 11 weeks and another 35% (28) had scans between 14 weeks to 20 weeks. Only 0.07% had their first scan after 20 weeks and they were due to late diagnosis of pregnancy.

Conclusions: Only 35% of mothers were undergone dating scan at due time, although 82.5% of mothers were done their booking visit before 14 weeks.

AO 013

Effectiveness of screening for gestational diabetes mellitus during third trimester

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Introduction: Diabetes mellitus is the commonest endocrine disorder identified during pregnancy. It can be either pre-existing diabetes mellitus or gestational diabetes mellitus. The prevalence of diabetes mellitus was in a rising trend in South Asian countries during the last couple of decades. Gestational diabetes mellitus (GDM) defined as “abnormal glucose intolerance of any degree with onset or first recognition during pregnancy”.

Objectives: The aim of the study is to find out the occurrence of gestational diabetes mellitus in the third trimester, to determine the criteria for repeating the test during the third trimester and to describe the maternal, fetal and neonatal outcomes in women who are diagnosed as having GDM in the third trimester.

Methods: A descriptive cross-sectional study was conducted among 915 study participants. Study population was pregnant women attending antenatal clinic during the research period until the sample size was reached. Singleton pregnant women, who got registered before the routine second trimester diabetes screening, were included to the study. Interviewer administered structured questionnaire and a data extraction sheet were used for data collection. If

the screening or diagnostic test were negative at 24 - 28 weeks, they were screened again by oral glucose challenge test at 34 - 36 weeks of gestation. Diagnosis was confirmed with oral glucose tolerance test. Data was analyzed by SPSS version 22.0. Ethical clearance was obtained for this study through ethics review committee of the Faculty of Medicine, University of Jaffna, Sri Lanka.

Results: Mean age of the study sample was 28.96 years (SD=5.19). Majority was presented with their second pregnancy (N=466:50.5%). Mean values following glucose challenge test was 133.4mg/dl (SD=24.43) at third trimester. Mean blood sugar value following fasting, 2-hour oral Glucose tolerance test was 112.12mg/dl (SD=11.41) and 136.57mg/dl (SD=17.49) respectively. Majority was within the range of 121mg/dl to 140 mg/dl (N=748:81.1%). Mean birth weight was 2.96 kg (SD=361.48). All parameters except incidence of premature rupture of membrane were significantly associated with high blood sugar values following OGTT. Gestational diabetes mellitus in 3rd trimester could be identified as a significant risk factor for high amniotic fluid index (OR=2.449: 95% CI=1.552-3.863), pregnancy induced hypertension (OR=1.729:95 % CI=1.034-2.819), neonatal hypoglycaemia (OR=4.547:95 % CI=1.763-11.732) and admission to special care baby units (OR=3.14:95%CI=1.6635.930).

Conclusions and Recommendations: When the results of glucose challenge test was very high, requirement of confirmatory tests is minimized. Gestational diabetes mellitus in 3rd trimester is a significant risk factor for high amniotic fluid index, pregnancy induced hypertension, neonatal hypoglycaemia and admission to special care baby units. Special attention should be paid on pregnancy induced hypertension during the antenatal management of mothers with increased blood sugar values. Specific precautions should be taken to treat neonatal hypoglycaemia and other perinatal outcomes when mothers with increased blood sugar levels deliver their babies.

AO 014

An audit of use of magnesium sulphate for fetal neuroprotection in very preterm deliveries in a Tertiary Obstetric Unit

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Background: Preterm delivery and related complications cause significant perinatal morbidity and mortality worldwide. Neurological morbidity as a result of preterm births remains a significant health challenge. Most common pathological lesion associated with cerebral palsy in preterm infant is periventricular white matter injury. Apart from its important role in pre-eclampsia and its use as a tocolytic, growing evidence suggests that the use of MgSO₄ in preterm delivery decreases the risk of CP and PVL. Magnesium sulfate (MgSO₄) reverse the harmful effects of hypoxic brain injury by blocking NMDA receptors, acting as a Ca antagonist and reducing Ca influx into the cells.

In accordance with the National Institute for Health and Care Excellence (NICE), intravenous magnesium sulfate should be offered to all women between 24+0 and 29+6 weeks who are at the risk of established preterm labour or having a planned preterm birth within 24 hours. It can be considered to all women between 30+0 and 33+6 weeks.

Objective: To evaluate the implementation of NICE guideline in a tertiary care setting in Sri Lanka.

Method: This retrospective audit conducted among all women who were admitted to the antenatal ward of Sri Jayewardenepura General Hospital with the established preterm labour or having a planned preterm birth between 24+0 and 29+6 weeks in the period between 1st November 2018 to 31st May 2019. Data were collected from antenatal records and bed head tickets. Data was analyzed in Excel.

Audit Standard

- 100% pregnant women in established preterm labour or having a planned preterm birth within 24 hours, should be offered with intravenous MgSO₄ between 24+0 and 29+6 weeks of pregnancy.
- 100% pregnant women in established preterm labour or having a planned preterm birth within 24 hours should be offered with 4 g intravenous bolus of magnesium sulfate over 15 minutes, followed by an intravenous infusion of 1 g per hour until the birth or for 24 hours (whichever is sooner).

Result: A total of 42 women were recruited for the study. The percentage of women given intravenous MgSO₄ during preterm labour was 73.88% (31/42). The majority of women (7/11) who did not receive MgSO₄ underwent a Category I / II caesarean or precipitated spontaneous vaginal delivery. There were no proper reasons or documentation for not offering MgSO₄ in 4 cases (4/11).

Among the women who received intravenous MgSO₄, only 9.6% (3/31) received proper course of MgSO₄ as per recommendation. All three were affected by impending eclampsia. Remaining 90.3% (28/31) of women received 4g intravenous bolus of MgSO₄ only.

Conclusion & Recommendation: Although significant number of women received intravenous MgSO₄, adherence with recommendation was poor, particularly in terms of total dose and duration of administration. It is likely that there may not have time to consider MgSO₄ in urgent cases.

Finding of this audit disseminated to the health care staff. Advice was given regarding importance of adhere the current recommendation in practice to maximize the potential benefit to babies at risk. Re audit was planned in six months.

AO 015

Prevalence of associated factors of post traumatic stress disorder (PTSD) among a cohort of post partum mothers in Horana Medical Officer of Health area: A cross sectional study

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Introduction: Post Traumatic Stress Disorder (PTSD) is a response to a catastrophic event. Child birth is an intense stressful and emotional event which is severe enough to cause PTSD in some postpartum mothers. Severe form of postpartum PTSD can lead to maternal morbidity and mortality.

Objectives : To describe the prevalence and associated factors of PTSD among postpartum mothers in Horana Medical Officer of Health (MOH) area

Methodology: A cross sectional study was conducted at the field clinic settings in Horana MOH area, over a period of eighteen months from November 2016. Study participants were selected with a two staged sampling technique by randomly selecting 4 polyclinics out of all 9 polyclinics in first stage and final study units were taken from all the post partum mothers attended to those polyclinics till collected the required sample size of 225. A pre-tested interviewer administered questionnaire was used to collect socio-demographic data and factors related to pre-pregnancy, antepartum, intrapartum and post-partum periods. Self-administered, validated Sinhalese versions of Edinburgh Postnatal Depression Scale (EPDS) and PTSD Symptom Scale-Self Report (PSS-SR) were used to assess the presence of Post-Partum Depression (PPD) and PTSD, respectively. Scores of PPD >9 and PSS-SR >13 were taken as screening positive for two conditions respectively. Each participant was assessed at one month, two months and six months after the delivery for PTSD and PPD. The data gathered were tabulated, and SPSS statistical package version 18 was used to analyze the data. Qualitative and quantitative data were calculated with standard summary measures and effect measures. Significance of associations was determined by Fishers' exact test with 5% significant level.

Results: Data was gathered from 225 post-partum mothers who were at 1-month postpartum period for the initial study. The response rate at follow-up postpartum visits at second and sixth months were 95% (n=214) and 94% (n=211). Point prevalence of postpartum PTSD was recorded as 2.7% (n=6), 0.9% (n=2) and 0.5% (n=1) at postpartum first, second and sixth months respectively. Period prevalence was 3.6% during the postpartum six months period. Verbal abuse during labour (p=0.04) and presence of postpartum depression (P≤0.001) were significantly associated with postpartum PTSD. Anticipation of pain during labour was approaching significance level (p=0.054). There were no significant associations between PTSD and education level of mothers, gestational age at delivery, inter-pregnancy interval, whether pregnancy is planned or unplanned, history of subfertility, history of psychiatric disorders, partner violence, number of antenatal hospital visits, received antenatal counseling, hospital of delivery, delivery at non-state hospital, type and mode of delivery, labour duration, verbal or physical

abuse during labour, presence of labour companion, mental trauma, post-partum hemorrhage, manual removal of placenta, negative birth experience, low APGAR score of the baby at delivery, received neonatal and maternal intensive care, birth defects, breast feeding problems and opportunity to discuss problems with a health care worker. Of the mothers detected to have postpartum PTSD during the study no adverse outcomes were encountered during the study.

Discussion and Conclusions: Prevalence of postpartum PTSD in this semi-urban community during the study period was 3.6%; which is in par with overall global prevalence. It is significantly associated with verbal abuse during labour and postpartum depression.

Recommendations : Labour preparedness during antenatal period, respectful care in labour, and prompt recognition followed by timely referral of postpartum PTSD mothers are recommended in minimizing the associated adverse outcomes to postpartum mothers.

AO 016

The usefulness of early third trimester uterine artery doppler at 28 to 29 weeks gestation in the prediction of early and late onset preeclampsia (PET), gestational hypertension and fetal growth restriction (FGR)

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Introduction: Hypertensive and its related disorders such as preeclampsia, fetal growth restriction, placental abruption etc., play a significant role in the adverse maternal and fetal morbidity and mortality. Identification of the high risk mothers may assist to reduce morbidity and mortality via early intervention.

Objective: To determine the usefulness of early third trimester uterine artery Doppler at 28 to 29 weeks gestation in the prediction of early and late onset preeclampsia (PET), gestational hypertension and fetal growth restriction (FGR).

Methods: A Prospective study was carried out at ward 20, Teaching Hospital, Jaffna. Bilateral uterine artery Doppler was done at 28 -29 weeks with the assessment of PI, RI and notching in both sides. A second scan measured fetal biometry and Doppler at 32 and 36 weeks. Maternal assessment was also done to identify the defined outcome during the follow up.

Results: The frequencies of women who developed early onset PIH, PE and FGR were 1.7 % (8), 1.1% (5) and 1.5% (7) respectively whereas 3.3% (15), 2.6% (12) and 3.3% (15) of them developed late onset PIH, PE and FGR respectively. The mean of mean RI and mean PI for the study group was 0.58 and 0.79 respectively. Ten percentage of the study population had the bilateral uterine artery notching. The mean of mean RI among women with early PIH, PE and FGR was 0.77, 0.62 and 0.67 respectively. The mean of mean PI for the same group was 1.64, 0.92 and 1.48 respectively. The mean of mean RI of late onset PIH, PE and FGR was 0.77, 0.69 and 0.64 respectively. The mean of mean PI was 1.33, 1.39 and 1.46 respectively. The odd ratio for mean RI and mean PI was significantly high for the all measured outcomes comparing to normal pregnancy. The P value for each parameter was <0.001. Cut-off value for mean RI was 0.65, 0.62 and 0.59 for early onset PIH, PE and FGR respectively and 0.71, 0.60 and 0.62 for late onset PIH, PE and FGR respectively. Cut-off value for mean PI was 0.74, 0.73 and 0.83 for early onset PIH, PE and FGR respectively and 1.61, 0.82 and 0.80 for late onset PIH, PE and FGR respectively. Sri Lanka Journal of Obstetrics & Gynaecology, Volume 41, Supplement 1, August 2019

Conclusions: There is a significant association between 28-29th weeks' uterine artery Doppler parameters and early onset and late onset PIH, PE and FGR. Cut-off values for mean RI and mean PI were determined for the study population. Key words: uterine artery Doppler, third trimester, resistance index, pulsatility index, uterine artery notching, early onset preeclampsia, early onset fetal growth restriction.

AO 017

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

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Introduction: There are significant differences in the cut-off values for the diagnosis of 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 Clinical Excellence (NICE) criteria. IADPSG has a lower cut off value of 92mg/dl for fasting blood sugar compared to that of NICE recommendation (100mg/dl) and NICE recommend a lower 2 hour value of 140mg/dl compared to that of IADPSG (153mg/dl). This leads to three groups of patients depending on the criteria used for diagnosis. Those with diabetes according to any criteria, GDM only for IADPSG and GDM only for NICE criteria. Our aim in this study is to compare pregnancy and fetal outcomes of the three groups in order to develop local recommendations.

Methods: An on-going outcome based observational study from June 2015 to June 2019 was conducted on 315 pregnant women who were diagnosed as GDM in the university obstetrics unit, Colombo South Teaching Hospital, Sri Lanka. Diagnosis of GDM was made using the lowest recommended cut off values of HAPO/IADPSG criteria and NICE criteria. NICE diabetes in pregnancy guidelines were used in management once GDM was diagnosed. The outcomes of the three groups were compared, Group A: the patients diagnosed using any criteria, Group B: only from HAPO/IADPSG criteria (patients fasting value within 92-100 mg/dL and other values within the normal). Group C: only from NICE criteria (patients with 2nd hour value within 140-153 mg/dL but the rest were normal).

Results: Out of all women with GDM 70% were in group A, 25% in group B, and only 4% in group C. 62% of women needed metformin or insulin apart from Medical nutrition therapy in Group A, and 50% in group B and only 17% in group C. Average period of gestation at the delivery in Group A was 37 weeks and 3 days, and it is 37+5 for group B and 38+4 for group C. Induction rate in Group A was 56%, 14% in Group B and 4% in Group C. LSCS rate was 48% in Group A, 41% in group B and 36% in group C. 7% of babies were macrosomic in Group A, 2% and 1% respectively in groups B and C. Special Care Baby Unit (SCBU) admission rates were 11% in group A and 1% in group B. The average birth weights of Group A were 2.93kg, Group B 2.900kg and group C 2.818kg.

Conclusion: HAPO/IADPSG criteria diagnosed more women with gestational diabetes than NICE criteria. Only 4% of mothers will be missed if HAPO/IADPSG criteria is used. Pregnancy outcomes of the Group B is similar to that of Group A and 50% of women needing further intervention apart from MNT could have prevented adverse pregnancy outcome in a significant number of patients compared to the few number of patients in group C. It was observed that IADPSG criteria provide better diagnostic cut-off values for our population compared to NICE. Limited number of patients especially in group C is a limitation of this study to evaluate further since this is an ongoing observational study and will be able to provide more information in the future.

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Oral Presentations

AO 018

Effectiveness and safety of keeping the intra uterine Foley catheter for 24 hours versus 48 hours for induction of labor: A randomized controlled trial

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Introduction: Induction of labor is the commonest obstetric intervention.

Objective: To compare the safety and effectiveness of keeping the intrauterine Foley catheter for 24 hours versus 48 hours for induction of labor.

Design: Randomized controlled trial. Method: Participants with singleton cephalic presentation, intact membranes and Bishops' score of 5 or less at POG 40+5 were allocated to either 24 hours (n=107) or 48 hours (n=94) intrauterine Foley induction groups. Pre-induction and post-induction CRP and Papanicolaou smears were assessed. Proportions developing spontaneous onset of labor (SOL) was compared. Placental histology for chorioamnionitis was carried out in those who experienced SOL. Apgar score, incidence of fever in neonates and SCBU admissions were compared.

Results: In the 24 hours group, 35 (32.7%) experienced SOL, compared to 54 (57.4%) in 48 hours ($p < 0.001$, OR=2.78 CI=1.56 to 4.93). There was no difference in the mean length of active labor 7.48 hours Vs. 7.69 hours), cesarean delivery (16% Vs. 14%), bacterial vaginosis rates in post induction Papanicolaou smear in those previously negative (10.3% Vs. 6.7%), mean C - reactive protein increase (4.08 Vs. 3.91 IU), histological evidence of chorioamnionitis (5.7% Vs. 11.1%), mean 1 minute and 5-minute Apgar scores (8.99 & 9.93 Vs. 9.12 & 9.98), number of neonates with pyrexia (8.4 Vs. 8.5%) and SCBU admissions (15% Vs. 12.8%).

Conclusions: Keeping the Foley catheter in for 48 hours resulted in a statistically significant increase in the onset of SOL, without increasing infectious and neonatal morbidity.

Keywords: Foley induction, IOL, safety, effectiveness

AO 019

“Rose bud service” – Establishment of a comprehensive care package for mothers who experience still birth for the first time in Sri Lanka

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Stillbirth is a devastating experience for both the parents and the caregivers. Management of patients experiencing stillbirth remains a challenge especially in the initial period. Offering satisfactory bereavement services, counseling, empathetic labour management, investigation of the cause and planning and management of future pregnancies are essential parts of the care plan and should be offered as a bundle. In this context, services of a dedicated team working together with family and other health care professionals to streamline the process is invaluable. In this paper we wish to share our experience in setting up a bereavement service and other services for patients experiencing a stillbirth in a tertiary care centre for the first time. Identifying the needs, training of counselors, making guidelines and data collection proformas, management protocols and liaising with the administration are very important when establishing a new service.

AO 020

Clinical audit on effective usage of partogram and MEOWS chart

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Introduction and objectives: The Partogram is a graphical representation of labour, which is recommended to be used in monitoring of labour by the World Health Organization (WHO), enabling provision of safe intrapartum care. Early identification of deviations from the normal pattern allows timely interventions, thereby preventing adverse outcomes to both mother and baby. The Modified Early Obstetric Warning System (MEOWS) tracks physiological parameters of a woman during the immediate postpartum period. This enables recognition of maternal morbidity at an early stage, preventing severe maternal morbidity and mortality.

Although Sri Lanka is a developing country, our health-related statistics, such as maternal mortality rate, are comparable to those of developed countries. It is therefore important that we make maximum use of available tools to continue to ensure high standards of care within the free health service.

Both the partogram and the MEOWS chart are simple, inexpensive and freely available tools. The goal of this audit was to assess the effective use of these tools in our setting.

Methods: A retrospective audit was conducted at Professorial Obstetric Unit, Colombo South Teaching Hospital from 01st December 2018 to 31st January 2019. A total of 234 deliveries (204 NVD; 3 instrumental deliveries; 27 EM/LSCS from labour room) were included in the audit. Effective use of the partogram and MEOWS chart was assessed by analysis of the relevant BHTs using a data collection form.

Results: 211 BHTs (90.2%) had a partogram attached, and majority of patients without partograms attached were those who had spent less than one hour in the labour room. Basic patient information was included in 100% of partograms. However, Special problems and instructions, position, caput, moulding, abdominal descent and maternal temperature were not recorded in the majority. Second stage monitoring was notably absent in the majority of vaginal deliveries (n=151; 72.9%)

MEOWS chart was attached to a majority (n= 220; 94%) of BHTs. However, 2 charts were completely empty, and temperature and urine output were not monitored in a majority (Temperature not monitored n=116, 52.7%; Urine output not monitored n=180, 81.8%).

Conclusions: Practical issues in the labour room and the postnatal ward due to inadequate staff for monitoring of each patient should be addressed. Documentation of maternal monitoring and second stage foetal monitoring should be encouraged. A proper training programme of maintenance of the National Partogram and MEOWS chart should be arranged.

Category B: Benign Gynaecology

BO 001

Outcome of surgical management of ectopic pregnancy and patient preference survey: A cross-sectional study

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Introduction: Ectopic pregnancy is one of the complications of pregnancy, where the conceptus is located outside the uterine cavity with a prevalence of around 1% to 2%. This is one of the common causes for early maternal mortality but the mortality is on a gradual decline due to better early antenatal care and assessment techniques. The commonest location for an ectopic is in the fallopian tube.

Even though early diagnosis of an ectopic pregnancy has led to more conservative management options including conservative surgical options such as surgical salpingotomy, and radical surgical treatment (salpingectomy), both of which can be done by laparoscopy. Keeping in line with these facts the study focuses on the patient's preference and the surgical management in ectopic pregnancy of the professorial units of Colombo South teaching Hospital.

Objective: To describe the surgical treatment outcome for those patients presented with ectopic pregnancy with a normal contra lateral tube and patient preference.

Method: This is a cross sectional study using patient records and a telephone survey using an interviewer-administered questionnaire to assess the patient preference.

The study is conducted at the Professorial Obstetrics and Gynaecology Unit, Ward 23, Colombo South Teaching Hospital, Kalubowila.

Results: On analyzing the data collected from 38 patients within six months from January to June the mean age of the patient was 30.76 ± 4.8 . The fate of the ectopic in these patients were mostly tubal rupture (60.5%), tubal mole (31.6%) and tubal abortion (7.9%). More patients preferred salpingotomy (73.7%) than salpingectomy (18.4%), after they were counseled about the risk of recurrent ectopic pregnancy and the chances for recurrent pregnancy, while 7.9% weren't informed about the options. When it came to the type of surgery that was undertaken, the results were to some degree similar with slightly more salpingectomy (52.6%) than salpingotomy.

(47.4%). Largely, mode of access to the peritoneum was laparoscopy (94.7%) than laparotomy (5.3%). Average blood loss 313.03 ml with highest being 2000ml and the least being 0ml. 100ml was the most common blood loss in the surgeries performed. Following the procedure, the tubes were sutured in a greater number of the patients (50%) and wasn't sutured in 50% of them.

Conclusion: The patients have preferred salpingotomy than salpingectomy however during surgery around 26.3% of those would end up in salpingectomy due to surgical difficulties.

BO 002

Comparison of closure of vaginal vault (Cuff) at total laparoscopic hysterectomy (TLH) , by laparoscopic (Abdominal) against the vaginal route

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Introduction and objectives: Total laparoscopic hysterectomy was performed in only under 10% of total number of hysterectomies at teaching hospital Peradeniya for a multitude of reasons. The author who has been performing cuff closure abdominally since 1998 first resorted to performing this step of TLH vaginally when the only laparoscopic needle holder failed. It was since felt to be a blessing in disguise by the relative ease and speed encouraging more frequent adoption. The technique was most convenient before the advent of barb sutures. A comparison of the procedures for efficacy and safety is attempted from Jan 2012 to June 2019.

Method: A retrospective comparative analysis between the abdominal laparoscopic (abdominal) (A) against the vaginal closure (V) of the cuff (vault) follows. All surgeries were for benign indications, done by author or a registrar under supervision. The total number of cases was 47 of which 18 (38.3%) were closed as A and the rest 29 (61.7)% B. Barb sutures used in 9 cases of A seemed to speed up matters though no attempt was made to compare the time advantage within A. All of A were sutured intracorporeal continuously with no 0, but B were sutured with no1 Vicryl mostly interrupted.

Results: The time taken to close the vault alone, for method A was over 18 min on average and just 4 minutes vaginally. There was one instance of accidental lower ureteric injury in A and another developed hydro ureter needing stenting, but seemed unrelated to the vault closure. Vault dehiscence occurred subsequently in two patients of A, one was in whom the lower ureteric injury happened. This also resulted later in a large vault granuloma.

There were 2 case of infection of the vault edges in each method. Long term complications like vault prolapse are yet to be encountered. The uncontrolled confounding factors like obesity, associated pathologies, the expertise of assistants, use or non-use of barb sutures within A, made precise statistical analysis unfeasible within this small sample.

Conclusion: Stronger closure of vault allowing use of a larger needle and thicker bite of vaginal edge may have reduced dehiscence. The audit of the authors own experience still left a strong impression of the ease and relative safety of the vaginal closure of the cuff.

BO 003

A rare case report on norethisterone induced acute liver injury in a perimenapausal woman with fibroid uterus

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Background: Progesterone is the naturally occurring progestin which is secreted by the ovary and has a multitude of actions on many organs, predominantly on the reproductive tract. Drug induced liver injury (DILI) is uncommon and severe forms are associated with significant morbidity and mortality. Norethisterone is commonly used drug in gynecologic practice in which DILI are infrequently reported. It manifests as significant rise of transaminases after 1 to 2 weeks of treatment without significant changes in alkaline phosphatase or bilirubin. These abnormalities are generally short lived and resolve rapidly with dose modification or discontinuation.

Case report: A 48-year-old, P2C2 woman who was recently diagnosed with the history of ischaemic heart disease was on dual antiplatelet and atorvastatin. She presented to the gynaecology unit with the 4 months history of irregular prolonged per vaginal (PV) bleeding. Her Pap smear and endometrial sampling reports found to be normal. She was diagnosed as a case of uterine fibroid and was commenced with Norethisterone 5 mg twice a day and Total Abdominal Hysterectomy was planned. Two weeks later, her pre-anesthetic work up revealed raised transaminases and alkaline phosphatase (AST 821 U/L, ALT 109 IU/L, ALP 184 U/L) with normal bilirubin. Subsequently, she was referred to medical unit for evaluation of deranged liver function.

Even after omitting atorvastatin as a possible aetiology, her liver enzymes were progressively elevated. There was an evidence of hepatitis on USS Abdomen. Her Serum albumin level, clotting profile and Bilirubin levels were normal persistently. On aetiological evaluation, her ESR was within normal limit and ANA was negative. Hepatitis screenings for possible viral aetiology were negative. Her AST, ALT and ALP persistently raised to 645 U/L, 892 U/L and 364 U/L respectively within one week. Thereafter norethisterone was withdrawn as suspected aetiology and her AST, ALT and ALP levels were back to normal limits within two weeks.

Discussion: Female sex hormones including progesterone have been shown to be associated with liver injury. The exact mechanism of progestogen related cholestasis is not known. This case report highlights the importance of having high index of suspicion, history evaluation and clinical implications of DILI due to Norethisterone, a commonly prescribed drug for abnormal uterine bleeding. The appropriate timing of drug withdrawal can lead to an uneventful recovery. Ursodeoxycholic acid is commonly used drug although there is no strong evidence in hepatic cases.

BO 004

Subjective perceptions and experiences of subfertility in women: A qualitative study

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Introduction and objectives: In an eastern culture where being a mother is considered as the ultimate goal in a woman's life, social dynamics of subfertility has a significant psychological impact. Purpose of this study was to identify the experiences and perceptions of women on subfertility and its' treatments in a Sri Lankan context.

Methods: In-depth interviews were used as a qualitative method of gathering data. A total of 31 participants were selected by purposeful sampling from a specialized clinic for subfertile couples in De Soysa Hospital for Women which is a tertiary care center. Data were collected from August to December in year 2018. Content analysis approach was utilized for data analysis.

Results: Results were interpreted as 14 themes, 36 subthemes and 22 subdivisions within subthemes. Theme were, perceptions of subfertility, psychology related to subfertility, factors aggravating the negative mentality, quality of sexual life, integrity of the marriage, pressure from the family, pressure from the society, coping up strategies, fertility treatments, experiences on previous pregnancies with unsatisfactory outcomes, attitudes related to adoption, attitudes towards IVF, regrets and suggestions, and attitudes towards the study.

Conclusions: Perception on subfertility is varied according to the socio-cultural dynamics in upbringing, the current family and social environments. Indolent nature of the problem has concealed the identification of psycho-sexual and psycho-social consequences by the health care team. Hence, the understanding on psycho-socio-sexual nature of subfertility by the health care team and the medical nature of subfertility by the society both are similarly important to minimize the burden of subfertility.

Category D: Fetal-maternal medicine

DO 001

Prevalence of fetal growth restriction (FGR) diagnosed under current protocols and effectiveness of a new protocol in early detection of FGR among Singleton low risk pregnant mothers

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Introduction: Every pregnancy has a genetically predetermined growth potential and those who fail to reach this naturally defined growth is termed fetal growth restriction (FGR). The term FGR and Small for Gestational Age (SGA) are often used interchangeably and erroneously in the literature, though SGA only constitute those who fell under 10th centile in estimated fetal weight. Therefore, many FGR fetuses that do not come under this would pass unnoticed.

Objectives: To describe the prevalence of FGR being diagnosed under current protocols and to develop and test a new protocol to detect FGR early among Singleton low risk mothers and define its effectiveness.

Methods:

Research was conducted under 3 main components

1. Retrospective study was conducted using records of babies and delivered singleton mothers in a tertiary care Centre to detect prevalence of FGR and to identify the proportion which was diagnosed antenatally.
2. Results of the component one, available evidence obtained at literature review and the expert opinion were ultimately triangulated to form the new protocol to diagnosed FGR early.
3. Prospective study was conducted to assess the effectiveness of our new protocol in diagnosing FGR in low risk pregnancies.

Results: Prevalence of FGR in our total study population (n=314) was 17.2% and only 31.5% (n=54) were detected antenatally.

Serial SFH measurements plotted on customized GROW charts along with base line USS at 28weeks for all low risk mothers and another USS only at the detection of suboptimal growth was developed as our new protocol.

New protocol found to have a sensitivity of 78.1% and a specificity of 96.2% in diagnosing FGR, where it had showed the highest overall accuracy of 93% in detecting FGR in low risk pregnancies. Serial SFH monitoring alone and serial third trimester ultrasound monitoring alone as screening tools for detection of FGR were merely consisted of a sensitivity of 81.3% and 87.5% and an overall accuracy of 83.4% and 85.1% respectively, evidently lagging behind the proposed new protocol.

Conclusion: Current risk-based assessment and serial SFH monitoring for low risk pregnancies has neglected majority of FGR fetuses depriving them of proper antenatal attention. However, we have shown that the developed new protocol of serial SFH measurements plotted on customized charts along with base line USS at 28 weeks and another at the detection of suboptimal growth is undoubtedly a superior tool in detecting FGR than the existing ones.

DO 002

Fetal cerebroplacental ratio at term gestation in the prediction of adverse perinatal outcome

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Introduction: Assessment of impedance to blood flow in the fetal Umbilical artery (UA) and middle cerebral artery (MCA) with Doppler ultrasonography is commonly integrated with routine antenatal management in surveillance of

fetuses at high risk. Although high UA Pulsatility index (PI) and low MCA PI, themselves are predictors of adverse perinatal outcome, combining these two parameters calculating the Cerebroplacental ratio (CPR) further improves the predictive value. The CPR is emerging as an important predictor of adverse perinatal outcome in modern obstetric practice and its predictive value in assessing fetal well-being has been shown not only in small for gestation age fetuses but also in fetuses that are appropriate for gestational.

Objective: To find the association between the Cerebroplacental ratio and adverse perinatal outcome.

Methods: This was a prospective cohort study conducted at Obstetrics ward of Professorial unit of Rajarata University in Teaching hospital Anuradhapura. 354 singleton pregnancies at 37-41 weeks gestation were included for the study. A detailed ultrasound scanning with Doppler evaluation performed within 1 week from delivery. Fetal UA PI and MCA PI were measured and CPR was calculated. Fetuses were followed up for intrapartum adverse outcome categorized as NNU admission, perinatal death, fetal distress, Apgar score < 7 at 5 min and any adverse outcome. Descriptive statistics and the statistical applications for diagnostic test accuracy were used for data analysis. Receiver-operator characteristic curve were plotted to analyze the predictability of CPR for each category.

Results: Mean value of the age of the participants was 27.22 years (SD=5.19). Majority of the study participants were primigravidae mothers. Mean BMI value of the study participants was 23.12kg/m² and majority showed a higher BMI value than the normal BMI range. Considerable number of study participants were in their 40th week of gestation. CPR has a significantly positive ability of predicting any type of adverse event. An overall predictability is shown by the other variables used in the study such as MCAPI and UAPI. But the predictability of CPR value is more superior to the MCAPI and UAPI values. Although CPR has a positive ability for predicting foetal distress and reduction of APGAR score, it does not have a significant predictability.

Conclusions and recommendations: It is possible to predict adverse perinatal outcomes by the CPR values which are calculated by using UAPI and MCAPI. More reliable predictions to detect adverse perinatal outcomes can be achieved by the CPR value than the UAPI and MCAPI values. More than predicting an exact adverse event or events, it is possible to assess the probability of expecting an adverse perinatal outcome by using the ultra sound scan done at the 37-41 weeks of gestation.

Further studies should be conducted to confirm any cause effect relationship between MCAPI, UAPI and CPR values and adverse perinatal outcomes. Should pay attention on including a method to predict adverse perinatal outcomes to the clinical management guidelines by using the arterial pulsatile indexes calculated during the antenatal period.

DO 003

Comparison of screening results vs. pregnancy outcomes in patients screened using the non-invasive g-scan test (non-invasive prenatal testing)

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Introduction and objectives: Non-invasive prenatal testing (NIPT) utilizes circulating cell-free fetal DNA (cffDNA) in maternal blood to detect prenatal chromosomal abnormalities. It is safer than amniocentesis which carries potential risk of miscarriage. This study was to assess the pregnancy outcomes for patients that have undergone NIPT screening (Non-Invasive G-scan) at the Credence Genomics laboratory.

Methods: A retrospective study was carried out on patients referred for non-invasive G-scan at Credence Genomics Pvt. Ltd from August 2016-April 2019. Outcomes were gathered via telephone conversations with patients who delivered before May 2018. Miscarriages, IUDs, delivery of a normal/abnormal baby, gender of the baby and postnatal complications were recorded.

Results: 433 referrals were received during the study period; 12 (2.7%) were high risk for Trisomy 21, 5 (1.1%) for Trisomy 18 and 2 (0.4%) for Trisomy 13. Borderline risk was reported in one patient each for chromosome 8, chromosome 7 and borderline risk for both chromosome 7 & 47, XXY aneuploidy.

114 patients (26.3% of referrals) had delivered by May 2018 and were identified for inclusion. Seventeen patients could not be contacted, 1 declined to provide feedback and 96 provided feedback. 90/96 had been reported as low risk (Low risk cohort); 5/96 as high risk for Trisomy 21 and 1/96 as borderline risk for Chromosome 8 abnormality (Elevated risk cohort) through NIPT screening.

Low risk cohort: 82 (91.1%) gave birth to clinically normal babies; 3 (3.3%) babies died due to post-natal complications (One diagnosed lung hypoplasia, another diagnosed with ureteric obstruction and passed away, and one deceased at 5 months with no cause of death reported); 1 (1.1%) was diagnosed with isolated congenital heart defect; 1 (1.1%) with late onset neurological problems but no chromosomal defects and 2 (2.2%) were reported with gender discrepancy in one particular batch due to quality issue. One patient (1.1%) reported birth of a Trisomy 21 baby.

Elevated risk cohort: 3 pregnancies (50%) were confirmed as Trisomy 21 through amniocentesis. one patient (16.6%) had a spontaneous miscarriage and 1 (16.6%) had terminated without confirmatory testing. One (16.6%) borderline risk for chromosome 8 aneuploidy had been confirmed as normal through amniocentesis.

Conclusions: Outcomes of Elevated risk cohort clearly emphasize importance of counseling prior to testing and demonstrate that NIPT screening for positive patients must be followed up with confirmatory testing. Elevated risk cohort is too small (n=6) to provide definitive outcome on sensitivity of the test but false negative rate is low for negative patients.

DO 004

A study on heart disease complicating pregnancy

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Background: Worldwide indirect causes have become predominant cause of maternal death. In Sri Lanka Heart disease is the second leading cause for maternal mortality in 2016. In developed countries prevalence of congenital heart disease is increasing due to availability of cardiac surgeries and thus more adult survivors are becoming pregnant. In developing countries Acquired heart disease is predominant due to Increase incidence of rheumatic heart disease while number of congenital heart disease is increasing due to increase availability of the services in the recent past. Due to increasing non-communicable diseases we can see more pregnant mothers with myocardial infarction.

Method: A prospective study conducted in a tertiary care hospital over one-year period from 2017 to 2018. All the heart disease patients admitted to University obstetric unit were included in the study.

Results: A total of 56 patients received obstetric care. Median maternal age was 27 years. 26 (46.4%) patients had congenital and 30 (53.6%) had acquired heart diseases. 7 (12.5%) patients fall into WHO category 1 with NYHA1 while 5 (9%), 16 (28.6%) fall into WHO3, WHO4 respectively. Altogether there were 4 patients (7 %) with adverse maternal outcomes including one maternal death due to acute thrombosis in a patient undergone mitral valve replacement. There were 2 patients developed heart failure and both needed intubation and undergone corrective surgery (one underwent mitral valve replacement for tight mitral stenosis and other VSD repair). Both had spontaneous second trimester miscarriages of their fetuses. Commonest cardiac lesion within the study population was mitral regurgitation (30.4%) followed by Atrial septal Defect (17.9%), Ventricular septal defect (17.9%) and mitral stenosis (16%).

Rate of vaginal, instrumental and caesarean deliveries were 37.5% (n=21), 14.3% (n=8) and 44.6% (n=25) respectively, in which only 6 (10.7%) caesarean sections were directly due to heart disease complicating pregnancy. Median gestational age was 38 weeks and 4 days. If we consider the neonatal outcome median birth weight was 2.785kg and median Apgar score was 9, 10 at 1 and 5 minutes. Average hospital stay was 9 days. Therapeutic terminations were done in two cases while three had spontaneous miscarriages (one first and two second trimester).

Conclusion: As the incidence of heart disease is rising in pregnancy, it is important to have a multidisciplinary team involvement with the follow-up in tertiary care centers using common risk stratification system, which makes uniformity in interpretation and improve maternal and neonatal outcome.

DO 005

Prevalence of fetal growth restriction (FGR) diagnosed under current protocols and effectiveness of a new protocol in early detection of FGR among singleton low risk pregnant mother

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Every pregnancy has a genetically predetermined growth potential and those who fail to reach this naturally defined growth is termed fetal growth restriction (FGR). The term FGR and Small for Gestational Age (SGA) are often used interchangeably and erroneously in the literature, though SGA only constitute those who fell under 10th centile in estimated fetal weight. Therefore many FGR fetuses that do not come under this would pass unnoticed.

Objectives: To describe the prevalence of FGR being diagnosed under current protocols and to develop and test a new protocol to detect FGR early among Singleton low risk mothers and define its effectiveness.

Methods:

Research was conducted under 3 main components

1. Retrospective study was conducted using records of babies and delivered singleton mothers in a tertiary care centre to detect prevalence of FGR and to identify the proportion which was diagnosed antenatally.
2. Results of the component one, available evidence obtained at literature review and the expert opinion were ultimately triangulated to form the new protocol to diagnosed FGR early.
3. Prospective study was conducted to assess the effectiveness of our new protocol in diagnosing FGR in low risk pregnancies.

Results: Prevalence of FGR in our total study population (n=314) was 17.2% and only 31.5% (n=54) were detected antenatally. Out of these 314, majority (87%, n=273) were low risk pregnancies and 13% (n=41) were of high risk. While the prevalence of FGR in high risk group was 39% (n=16), it was 13.9% in low risk pregnancies, alarmingly representing 38 study subjects, clearly outnumbering the growth restricted cohort in high risk group, due to the apparent larger number in the low risk population.

Serial SFH measurements plotted on customized GROW charts along with base line USS at 28weeks for all low risk mothers and another USS only at the detection of suboptimal growth was developed as our new protocol.

New protocol found to have a sensitivity of 78.1% and a specificity of 96.2% in diagnosing FGR, where it had showed the highest overall accuracy of 93% in detecting FGR in low risk pregnancies. Serial SFH monitoring alone and serial third trimester ultrasound monitoring alone as screening tools for detection of FGR were merely consisted of a sensitivity of 81.3% and 87.5% and an overall accuracy of 83.4% and 85.1% respectively, evidently lagging behind the proposed new protocol.

Conclusion: Current risk based assessment and serial SFH monitoring for low risk pregnancies has neglected majority of FGR foetuses depriving them of proper antenatal attention. However, we have shown that the developed new protocol of serial SFH measurements plotted on customized charts along with base line USS at 28 weeks and another at the detection of suboptimal growth is undoubtedly a superior tool in detecting FGR than the existing ones.

DO 006

The association between maternal intra-abdominal pressure, pregnancy induced hypertension and perinatal outcomeJayasundra JMSW¹¹Castle Street Hospital for Women, Sri Lanka

Introduction and objectives: Intra-abdominal pressure (IAP) measurements are used to detect Intra-Abdominal Hypertension (IAH) and Abdominal Compartment Syndrome (ACS). Nonetheless the knowledge on applications of IAP or IAH in obstetrics is scarce. Clinical picture of preeclampsia is comparable to ACS. Pathogenesis of pregnancy induced hypertension (PIH) could be related to IAP. The study aimed to determine the association between maternal blood pressure, and antepartum and postpartum IAP levels in women undergoing caesarean delivery (CD).

Methods: Seventy pregnant women (normotensive, n=55 (79%); non-proteinuric hypertension, n=6(8%); proteinuric hypertension, n=9 (13%)) undergoing antepartum, non-emergency CD at the Academic Obstetric Unit, Teaching Hospital, Mahamodara, over two months in 2016 had their intravesical pressure measured before and after the CD. The intravesical pressure measurements obtained with the patient in supine position were considered to correspond to the IAP.

Results: Mean antepartum IAP in normotensive pregnancies (POA: 38 weeks +2days (95%CI 37+6 to 38 +4) , was 12.7 mmHg (95%CI 11.6 to 13.8) and the mean postpartum IAP was 7.3 mmHg (95% CI 11.6 to 13.8). In non-proteinuric hypertensive pregnancies (mean POA: 36 weeks +2 days (95%CI 37+6 to 38+4), mean antepartum IAP was 15.5 mmHg (95%CI 3.7 to 27.4) and the mean postpartum IAP was 10. 6mmHg (95% CI 1.7 to 19.5). In proteinuric hypertension pregnancies at mean POA of 32 weeks + 6 days (95%CI 29+5 to 36+1), mean antepartum IAP was 11.4 mmHg (95%CI 9.4 to 13.3) and the mean postpartum IAP was 8.7mmHg(95% CI 6.7 to 10.6). The IAP difference (Antepartum IAP- Postpartum IAP) in normotensives (5.4 mm Hg, 95% CI 4.8 to 6.0), was larger than in the proteinuric hypertensives (2.7 mm Hg, 95% CI 1.2 to 4.2, $p < 0.05$) but not significantly different from the non proteinuric hypertensives (4.9 mm Hg, 95% CI 0. 4 to 9.4,). In proteinuric hypertension pregnancies, postpartum IAP was positively correlated with antepartum SBP ($r = 0.69$, $p = 0.03$), postpartum SBP ($r = 0.84$, $p = 0.003$), postpartum DBP ($r = 0.78$, $p = 0.01$) and postpartum MAP ($r = 0.84$, $p = 0.005$).

Conclusions: In proteinuric hypertension, the post-partum IAP has a significant positive correlation with both antepartum and postpartum blood pressure. Such associations were not seen in non-proteinuric hypertensive or normotensive groups. However the antepartum and postpartum IAPs have strong positive correlations. High Birth weight was significantly associated with increased IAP difference in non-proteinuric group while this was not evident in preeclamptic group, denoting the fact that rise in IAP in pre-eclampsia cannot just be attributed to growing fetus, but to other factors which need to be further explored in future.

DO 007

Adverse fetal and maternal outcomes of dengue fever in pregnancy; a retrospective cohort studyNallaperuma OL¹, Senanayaka HM¹, Rishard MRM¹¹Department of Obstetrics and Gynaecology, Faculty of Medicine Colombo, Sri Lanka

Introduction and objectives: Sri Lanka is a dengue endemic country. The relative paucity of evidence to make definitive guidelines on prediction of maternal and fetal adverse outcomes leads to undue stress over patients and the care givers. Objectives of this study were to find out whether the antenatal dengue infection increases the risk of maternal, fetal, and neonatal adverse outcomes, what are those complications and what are the determinants of these adverse effects.

Methods: This study was carried out as retrospective cohort study. Study subjects were selected from all wards of DSHW and NHSL ward 39. Total cohort of pregnant patients with dengue fever admitted to DSHW or NHSL ward 39 from 01/01/2017 to 31/12/2017 were included. Case definitions were used in accordance to the national guideline. Data was collected from the medical records using a data collection sheets filled by the principle investigator. Any missing data were gathered using telephone conversations.

Results: A total of 115 cases were studied including 73 (68.5%) cases of dengue fever (DF), 39 (33.9%) cases of dengue hemorrhagic fever (DHF) and 3 (2.6%) cases of expanded dengue syndrome/isolated organopathy (DES). There were one case of maternal death, two cases of fulminant liver failure, one case of encephalitis, 5 (4.5%) cases of death in utero (IUD), 4 (3.6%) cases of miscarriages and 2 (1.8%) cases of neonatal dengue infection among the cohort. Precipitation of labour by dengue infection in the third trimester was high as 62.5% in DHF. There were one case of antepartum hemorrhage (0.87%) and 4 (3.7%) cases of post-partum hemorrhage. The risk of needing a blood or blood product transfusion if labour was precipitated in third trimester with DHF was high as 43%.

Conclusions: In general the risk of having an adverse outcome with DF is rare. High degree of suspicion is necessary to detect rare but sinister presentation of dengue fever as DES. Adverse fetal and maternal outcomes are correlating to the type of fever where DES gives the worse outcome then DHF and the least from DF. Significant fetal adverse outcomes including IUD is linked with a profound elevation of liver transaminase. Similarly higher the gestation higher the adverse outcome for both the mother and the baby. The risk of fetus developing late presented adverse outcome following a fully resolved dengue fever episode during first or second trimester is also rare.

DO 008

Do women from endemic regions of cKDu show pathological changes in the placenta?

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Introduction and Objectives: Chronic kidney disease of unknown aetiology (CKDu), endemic in North-Central, Uva and North-Western Provinces of Sri Lanka. There had not been much research to find possible involvement of other organs due to its unknown aetiology. One of the organs possibly affected is the placenta as both organs share similar function as a filtration barrier, with similarities in ultra-structure. It is logical to assume if an agent could affect the interstitium of the kidney, similar adverse effect could be effected on the interstitium of the placenta. The research aimed to analyse possible effects on placental structure of mothers exposed to the probable aetiological agent responsible for CKDu from endemic areas. If the agent passed through to the fetus its kidneys and other organs could be damaged.

Materials and Methods: A descriptive cross sectional study was carried-out with 420 placental samples, into two similar categories as exposed and controls, by 08 selected hospitals. Average period of residency in an endemic area of CKDu was the study variable. Pregnant mothers living more than 10 years in an endemic area were considered as exposed and others were considered as controls. After delivery, a section of placenta including membrane and a cross section from umbilical cord was collected within two hours and histopathological analysis were carried-out to identify; Inflammation, Fibrosis, Vasculitis, Calcification, Syncytial-Knots and Reduction of Villi. Collected data was analyzed using SPSS version 20. Relative prevalence was calculated. Chi Square test and Z test were applied for categorical variables with 95% Confidence level.

Results: Out of entire population, 86.67% showed no inflammation with similar prevalence for both categories. Prevalence of Fibrosis was 0.24% with exposed. Vasculitis was not identified in entire population. Prevalence of calcification was 10.95% and 12.38% for controls and exposed respectively. Syncytial-knots were identified only in controls as 0.48%. Prevalence of Reduction of Villi was 1.19% and 3.33% for controls and exposed respectively. There was no enough evidence to conclude that population proportions of two categories are significant as well as statistically significant association with category and abnormalities.

Logically, it was expected to observe changes in the human Placenta similar to the changes in the interstitium of kidney caused by CKDu. It was concluded that during 9-months period of exposure of the placenta, no significant microscopic changes were observable even in the most endemic areas.

Conclusion: Since there is statistically insignificant association between category and each abnormality, and also with the severity of each abnormality, the two categories can be considered to be almost similar. Since severe stages of placental abnormalities were not revealed, it can be concluded that the duration of pregnancy may be insufficient to create significant changes to the Placenta by the aetiological factors of CKDu. One reason that the kidney is more vulnerable could be its larger filtration surface area compared to the Placenta. It is possible that the exposure was not sufficiently long enough or that the light microscopy not being revealing enough calling for electron microscopic scrutiny.

Category E: Gynaecological Oncology

EO 001

Descriptive study of knowledge about their disease, treatment and possible complications of patients with ovarian cancer

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Introduction: Ovarian cancer is one of the commonest cancers in Sri Lankan women and the third commonest cancer among them. Majority of ovarian cancers are asymptomatic until advanced stages. Therefore at the diagnosis 80% cases are at advanced stages. Five year survival rate for all stages of ovarian cancer remains 35-40%. Patient awareness and education of their disease, its treatment and possible complications plays a major role in patient management as it directly affects patient compliance towards the treatment and follow up which plays a pivotal part in proper patient management. Health care workers as a team should involve in patient education and counselling which must be customized according to the medical, psychological, social, financial and spiritual background of the patient concern. It is a challenge to meet the requirements of proper patient education and counselling in busy government health care system but neglecting which is not acceptable.

Objectives:

1. To assess patient awareness and knowledge with regard to the disease, treatment and possible complications of ovarian cancer
2. To evaluate patients concerns about how they were educated and counselled with regards to diagnosis, treatment and possible complications of ovarian cancer.
3. Identify shortcomings and drawbacks of patient counselling and education with regard to ovarian cancer.
4. Formulate suggestions to improve patient counselling and education.

Method: A hospital based prospective cross sectional study was done at Gynae-oncological Unit of Apeksha Hospital Maharagama during 1st of December 2017 to 31st of May 2018. Total of 178 patients were evaluated by an interviewer

administered questionnaire which was filled by one of the investigators during an interview with the patient. Questionnaire was tested before the study and adjustments were made. Convenient sample size was evaluated. Patient evaluation was done with regard to knowledge about their disease, treatment and possible complications of ovarian cancer.

Results: Age variation was 22-76 years with average age of 58.7 years. 21 (11.8%) were unmarried. With regards to social characteristics 40 (22.4%) were educated up to A/L and 96 (54%) up to O/L. Only 42 (23.5%) patients were not educated to O/L. Out of 178 patients involved 41 (23%) were at Stage 1. 34 (19%) and 87 (48.9%) patients were at stages 2 and 3 respectively. Only 16 (9%) patients were at stage 4.

123 (68%) patients had satisfactory knowledge of the correct diagnosis of their disease whereas 56 (31%) patients had a poor knowledge. With regard to the stage of the disease 143 (79%) patients had a good knowledge whereas 35 (19.6%) had a poor knowledge. With regard to the treatment 145 (81%) had a fair knowledge but 33 (19%) patients had a poor knowledge. Regarding the complications of the disease and complications of treatment 97 (54%) and 69 (38%) patients had a good knowledge respectively, whereas 82 (46%) and 109 (61%) had a poor knowledge. 154 (86%) patients were satisfied about the education and counselling they had and 24 (13%) were unhappy. 150 (84%) patients were happy to have more information about their disease.

Conclusion: Overall there is a considerable room for improvement in patient knowledge about their disease, treatment and complications. Specially knowledge of complications of the disease and treatment is not satisfactory. Clinicians should pay more attention on patient education and counselling as significant number of patients show a poor knowledge.

EO 002

Multigene panel testing outcomes in Sri Lankan breast cancer patients

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Introduction and objectives: Worldwide, breast cancer is the most frequently diagnosed, complex biochemical, disease and leading cause of female cancer death. One in eight women worldwide gets affected with breast cancer during their lifetime. 38.7% Sri Lankan women aged 39-46 years are diagnosed with breast cancer, which is ranked number one in prevalence among all cancers in Sri Lanka About 5-10% of BCs are clustered in families owing to germline mutations. Since 2014, Credence Genomics Pvt. Ltd, has offered commercial mutli-gene panel for inherited predisposition screening, a product known as GSeek Breast which is expected to cover approximately 90% of possible germline mutations that cause BC based on current literature. This study will assess the genetic outcomes of the GSeek Breast test and catalogue the mutations of interest identified.

Methods: Credence Genomics provides NGS based screening for inherited predisposition to breast cancer. A multi gene panel consists of 18 genes, including *BRCA1*, *BRCA2*, *TP53*, *ATM*, *BARD1*, *BRIP1*, *CDH1*, *CHEK2*, *MRE11A*, *MUTYH*, *NBN*, *NF1*, *PALB2*, *PTEN*, *RAD50*, *RAD51C*, *RAD51D* and *STK11* are incorporated in the panel. A retrospective study was carried out from July 2014-December 2017 of all the patients referred for hereditary breast cancer screening at Credence Genomics laboratory. Screening was carried out using IonTM Ampliseq library technology and sequencing was conducted on the IonTM Personal Genome Machine. Sequencing output data was analyzed using IonReporterTM software as well as inhouse bioinformatic pipelines. Annotated variants were crosschecked across dbSNP and ClinVar to determine clinical significance.

Results: A total of 53 patients (50 female, 3 male, average age 45) underwent sequencing for inherited predisposition testing for breast cancer in the period July 2014-December 2017. Of the 1/3 male patients were diagnosed with BC and 20/50 female patients were diagnosed with BC. 7 patients reported a strong¹ family history of cancer; of these 2 had already been diagnosed with breast cancer. However, no pathogenic mutations were detected in these 2 patients. Out of the remaining 19 patients diagnosed with breast cancer, 13 had a moderate family history², 2 had weak³ family history and 4 provided no information on family history. Pathogenic mutations were detected in 6 (11%) patients of

which 4 (female) were affected with breast cancer, 1 (male) had a moderate family history of breast cancer but was not affected; and 1 (female) patient did not provide any family history or clinical data. Four patients had *BRCA1* gene variants (*p.Arg1203Ter*, *p.Glu907Ter*, *p.Leu28Argfs* and *p.Glu23Valfs*), one had *BRCA2* gene variant (*p.Phe12Leufs*), one had *TP53* gene variant (*p.Arg248Gln*). One patient had a benign 21bp deletion in *BARD1* gene (*p.Leu359_Pro365del*).

Conclusion: Germline pathogenic mutations accounted for roughly 11% of the study cohort. Pathogenic mutations were detected in 19.0% (4/21) of the patients diagnosed with breast cancer which is higher than the expected 5-10% of familial breast cancer cases. PPV and NPV is 80% and 60% respectively. Of the pathogenic variants detected, *p.Leu28Argfs* has been previously reported in Asian patients. There is insufficient data for the incidence of the other mutations in the Sri Lankan population. Further study is recommended to analyze whether the relatively high incidence of germline mutations leading to breast cancer is specific to the Sri Lankan population.

¹Defined as at least 2 first degree relatives diagnosed with breast or other cancer

²Defined as at least 1 first degree relative and 2 or more second degree relatives diagnosed with breast or other cancer

³Defined as only second degree relatives diagnosed with breast or other cancer

EO 003

Self sampling based molecular detection of high risk genotypes of human papillomavirus: A pilot study

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Introduction and objectives: Detection of high risk genotypes of human papillomavirus (hr-HPV testing) is an important tool in cervical cancer (CC) screening. Self-collected cervical sampling HPV testing has emerged as an alternative to physician collected HPV testing with increased acceptance among females. This study assessed the performance of an in-house PCR (polymerase chain reaction) diagnostic assay to detect hr-HPV in both physician collected and self-collected samples.

Materials and Methods: Ethical clearance was obtained for sampling and a PCR based in-house molecular assay was initially optimized and validated for HPV detection using 216 physician collected cervical samples collected from Gynecology clinic at Teaching Hospital Peradeniya (THP) and compared with blinded cervical cytology. Subsequently we adopted a low cost approach for further genotyping of most common high risk types of HPV, HPV 16 and 18 using restriction fragment length polymorphism (RFLP) analysis. The sensitivity of the PCR assay was tested using 10 fold dilution of HPV DNA containing plasmids. The RFLP results were validated with direct DNA sequencing. Next, 20 purposively sampled physician collected and self-collected (using Qvintip® device) cervico-vaginal samples were obtained from women aged 21-65 years attending CC screening at THP over 2 months' time. The same assay procedure was adapted for HPV detection in self-samples and compared with physician collected HPV results.

Results: The PCR based assay showed a sensitivity of detecting 1 pg of HPV plasmid DNA. No underlying high grade cervical lesions were missed by the assay. Among 216 women, 21 were infected with HPV and 16 were positive for HPV16/18 types. Ten randomly selected genotyping results were sequenced and results were 100% concordant with the RFLP analysis. Among 20 self-collected samples, 4 were excluded from the analysis due to sampling error. Among 20 paired sampling, 2 physician collected samples (1/20) were positive for HPV and self-samples showed good concordance with same 2 samples being positive for HPV (2/16) giving 100% sensitivity.

Conclusion: The pilot data suggest, the self-sampling is equally qualifying for the HPV screening with PCR based method to physician collected samples with high sensitivity. Therefore, we recommend to increase the sample size and validate the method for future clinical use.

EO 004

Sarcomatous transformation of a cellular angiofibroma in a middle aged woman: A case report of a rare vulvar tumour

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Introduction: Cellular angiofibroma is a rare recently described benign mesenchymal lesion chiefly involves the vulvar region. It is first described in 1997; since then, 79 published females cellular angiofibroma has been reported. It is found equally in men and women. It typically arises in middle-aged patients. Complete local excision of the tumor is the best cure as it has extremely low ability to recur. Interestingly, sarcomatous transformation has also been reported very rarely. Here, we describe a vulvar cellular angio-broma that, although initially excised with a rim of normal tissue, exhibited tumour recurrence with sarcomatous transformation in a relatively long time period.

Case report: A 42-year-old P2C2 woman presented with a solitary mass involving clitoral area of one-year duration in 2009. Ultra sound scan revealed a moderately echogenic well circumscribed lobulated solid lesion measuring 8 × 6 × 3.5 cm in size. Duplex Doppler revealed multiple vascular channels within the mass, which demonstrate low resistance flow. There are no other mass lesions present at perineum. The clinical diagnosis was made as haemangioma of the clitoris, and tumour was excised with a rim of normal tissue with the conservation of clitoris. The histological sample showed benign vulvar cellular angiofibroma which was strongly positive for CD34 and negative for actin and desmin. Eight years later she developed a painful itchy lump (65 × 40 × 30 mm) close to the previous excision site, which involves the right mons pubis and clitoris possibly due to local recurrence. The mass was excised and sent for histopathological, immunohistochemical analysis.

Immunohistochemically, the tumour cells were diffusely strong positive for CD34 and with intermediate to strong focal nuclear positivity for P53. EMA, ER, PR, ALK, SAM, S-100 protein and desmin were all negative. Ki67 in sarcomatous area show a proliferation index of 30%.

Diagnosis was made as sarcomatoid transformation of a cellular angiofibroma in view of the previous diagnosis of an angiofibroma in 2009. FNCLCC grading - Grade 2 (Tumour differentiation 1/3, mitotic count 3/3, necrosis 0/2, Total 4/8) Seven months after excision the patient is well with no further evidence of local recurrence. currently she is on regular gynaecological oncology follow-up.

Discussion: Cellular angiofibroma of the vulva is a benign mesenchymal lesion, usually presenting as a painless mass. It is chiefly a tumor of middle-aged women, as in our case. Sarcomatous transformation and nuclear pleomorphism have been reported only in 12 women up to now. This lesion shows no tendency for metastasis based on the limited clinical follow-up. There is no article specifically addressing treatment and follow up. Local excision with a free margin and follow-up is the appropriate treatment as so far. Tumour recurrence in cellular angiofibroma need to be managed with multidisciplinary team input.

EO 005

Distribution of stages of cervical cancer in a university hospital of Dhaka, Bangladesh

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Introduction: Cervical cancer is a second most common cancer in women of Bangladesh. According to WHO report it's incidence is 19.6/lac women of age 30-60 years. Management of cervical cancer is done by surgery, radiotherapy or concurrent chemoradiotherapy. For proper management, information about the extent of the disease is critical for treatment planning. Clinical stage is the single most important prognostic factor. According to Gynaecological Oncology

Group (GOG) report, the errors in FIGO clinical staging ranges from 24% in stage IB to 67% in stage II A. Now a days various imaging studies are used for staging of cervical cancer. Usually MRI is most informative regarding tissue penetration. So, MRI is used for diagnosis of the stromal, parametrial, bladder and vaginal invasion. But in Bangladesh, MRI is not easily available, it is costly and interpretation is often not correct. So, for staging of cervical cancer we have to depend on examination under anesthesia (EUA) which is more objective and informative.

Study design: Aim of the study was to know the distribution of stages of cervical cancer in Bangabandhu Sheikh Mujib Medical University Hospital. Objective of the study was to do clinical staging by examination under anesthesia together with some accessory aids like cystoscopy and proctoscopy.

Type of study was retrospective observational done at the Gynaecologic Oncology Department of Bangabandhu Sheikh Mujib Medical University.

Total number of cases were 735 and duration of study was from December 2011 to June 2019.

Study results are described in two groups according to report of EUA done from 08-12-11 to 01-08-17 and 02-08-17 to 30-06-19.

Procedure: Clinically diagnosed carcinoma cervix cases were evaluated for general physical condition. Then under anesthesia, a per speculum examination with two Sim's speculum was done to inspect the cervix, growth, vaginal walls (anterior, posterior and two lateral vaginal walls). The characteristics of the growth were noted in a tool designed to collect all the informations during EUA.

Then a careful bimanual examination followed by rectovaginal examination and digital per rectal examination were done for clinical staging of the disease. The growth seemed to involve the anterior vaginal wall, then cystoscopy was done. The growth seemed to rectal involvement, then proctoscopy and biopsy from suspected site also obtained. Finally an wedge biopsy from the growth was taken for histopathological confirmation. All the clinical examination findings were recorded in a predesigned schematic format.

Results: Statistical analysis was done by dividing the cases in two groups, from December 2011 to August 2017 and from August 2017 to June 2019. Aim of doing separate analysis is to see the differences in patients' characteristics and stages of Cervical Cancer at the time of presentation. Parameters observed were age, size of tumor, cystoscopy done or not done, biopsy taken or not taken and final diagnosis of the stage of the disease. No difference was found regarding age distribution, size of tumor and rate of biopsy taking among two groups. Differences found were in rate of performance of cystoscopy which was lower rate in second group of patients (27.3% vs 2.73%). Another difference found in stage of the disease. Most common stage found in first group was stage II B (28.26%). In second group also Stage II B and higher in number (50.78%).

Conclusion: Rate of cystoscopy done decreased in 2017 and 2018. Number of stage II B cases has been increased in 2017 and 2018. This difference may be due to change in operators performing the procedure and due to observer variation.

Keywords: Cervical cancer, staging, examination under anesthesia, MRI

EO 006

Superficial angiomyxoma of vulva – A rare presentation

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Introduction: Angiomyxoma is a rare connective tissue tumour with “myxoid” background, containing clear mucoid substances with the presence of abnormal blood vessels. The types described under this category are superficial and aggressive angiomyxomas (AAMs). Superficial angiomyxomas (SAMs) were first introduced to literature by

Carney et al. in 1986. Since then very limited number of cases have been encountered to date. SAMs are usually located in the trunk, lower limbs and head or neck of women of reproductive age and mostly less than 5 cm at presentation. The lesion can be an isolated one or a manifestation of Carney's complex in which skin pigmentation and multiple myxomas at the heart, skin, or endocrine organs have noted. SAMs in the vagina of postmenopausal women are extremely rare.

Case report: A 75-year-old woman presented with an asymptomatic slow growing lump at vulva over six months duration. On examination, it was a papule of 0.5 cm diameter with prominent blood vessels located at the seven o'clock position of vaginal introitus. There was no inguinal lymphadenopathy at clinical assessment. She was offered excisional biopsy. The histological analysis was "a piece of vaginal mucosa and submucosal tissue covered by an atrophic squamous epithelium. The sub epithelial stroma contained many small and medium size dilated vessels, stellate and spindle cells with regular nuclei and scattered smooth muscle cells. Surrounding stroma shows hyaline changes but no epithelial dysplasia, epithelial or stromal nuclear atypia or mitotic activity". Thus the conclusion of superficial angiomyxoma with involvement of excision margins was made. Follow up was arranged to identify a possible recurrence.

Discussion: SAMs are benign cutaneous soft tissue neoplasms, difficult to diagnose clinically and histologically due to limited incident reporting. Although benign, local recurrence with non-lethal consequences has been reported in cases of incomplete excision. Clinically, almost all vulvar SAMs are well-circumscribed, frequently extending to the subcutaneous fat and appearing as polypoid or papulonodular cutaneous lesions. Although obscure, it is surmised that SAMs arise from dysfunctional mesenchymal cells with genetic abnormalities. SAMs have lower frequency of local recurrence and ER and/or PR negativity than AAMs. Recurrence, in AAMs is about 30% but easily treatable via excision with a 1 cm margin. Very rarely, AAMs can metastasize and can acquire malignant potential. To clarify the diagnosis, detailed histopathological examination and immunohistochemical staining are of help.

EO 007

A young patient with low grade endometrial stromal sarcoma: Case report

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Introduction: Uterine sarcomas are a heterogeneous group of rare tumors of the uterine musculature and uterine connective tissue. They account for approximately 1% of all female genital tract malignancies and 3%-7% of all uterine cancers. Endometrial stromal sarcoma is a subtype, which accounts for less than 1% of all uterine tumors. The annual incidence is 0.19 per 100,000 women, and a gradual increase has been observed in the past.

Endometrial stromal sarcomas are further classified by the latest WHO classification, based on how closely the tumor resembles proliferative-type endometrial stroma, into the following three main categories: (1) low-grade endometrial stromal sarcoma, (2) high-grade endometrial stromal sarcoma, and (3) undifferentiated endometrial sarcoma.

Low-grade endometrial stromal sarcomas frequently occur in women between 40 and 55 years of age and more than 50% of patients are premenopausal. Patients commonly present with abnormal uterine bleeding, pelvic pain, and dysmenorrhea, but as many as 25% are asymptomatic.

Microscopically, endometrial stromal sarcomas (ESS) consist of well-differentiated endometrial stromal cells exhibiting only mild nuclear atypia and characteristically invade the lymphovascular spaces of the myometrium.

Low-grade endometrial stromal sarcomas (LGESS) are indolent tumors with a favorable prognosis. Treatment of low-grade endometrial stromal sarcomas is largely surgical in the form of hysterectomy and bilateral salpingo-oophorectomy. The tumors are often sensitive to hormones and it has been shown that patients retaining their ovaries have a much higher risk of recurrence (up to 100%). Lymph node dissection does not seem to have a role in the treatment of these tumors. We report a case of a young patient presenting with low grade endometrial stromal sarcoma.

Case report: A 20-year-old unmarried girl presented with heavy menstrual bleeding and dysmenorrhea which had lasted for 6 months. A transvaginal-ultrasound examination was performed and it showed an enlarged uterus with heterogeneous mass of $7 \times 5 \times 5.7$ cm which was distorting the endometrial cavity. Based on the ultrasound scan a differential diagnosis of sub mucosal fibroid or endometrial neoplasm was made, and CT abdomen and pelvis was suggested.

The complete blood cell count, urine analysis, liver function tests and renal function tests, revealed no abnormalities. Chest radiograph was normal. Lactate dehydrogenase was 309 U/L.

CT abdomen and pelvis showed a rounded mass measuring $7 \times 5 \times 5.2$ cm arising from the uterine fundal myometrium and protruding in to the uterine cavity. The endometrial cavity was dilated and filled with some fluid and debris. An impression of sub mucosal fibroid was made. MRI was suggested for complete assessment. MRI abdomen and pelvis showed a mass in the uterine fundus with signal characteristics highly suggestive of a sarcoma. Uterine cavity was distended and pelvic cavity filled with a small amount of blood. There was no significant lymphadenopathy.

The patient underwent total abdominal hysterectomy. Cut sections revealed a mass of tissue measuring $8 \times 7 \times 5$ cm with an attached polypoidal structure with focal hemorrhage. Microscopically both mass and polyp revealed fragments from a neoplasm composed of sheets of small cells with mildly pleomorphic, hyper chromatic nuclei and scanty to moderate pale cytoplasm. Nucleoli were inconspicuous. Mitotic activity was low. Necrosis was not seen. Tumor was found to infiltrate through the myometrial smooth muscle fibers. Appearance suggested a low grade sarcoma favoring a low grade endometrial stromal sarcoma. Immunohistological assessment was performed, revealing expression of ER, PR and CD10. Ki 67 proliferation index was 12%. It confirmed the diagnosis of low grade endometrial stromal carcinoma.

On the basis of these findings, we performed an exploratory laparotomy. The surgical procedure consisted of bilateral salpingo-oophorectomy, pelvic lymph-node dissection, omentectomy, para aortic node sampling and aspiration of abdominal fluid for cytological evaluation. After the second surgery, pathological examination was performed again. Ovaries and lymph nodes were free of tumour infiltration, and cytology was free of malignant cells.

Postoperative recovery was uncomplicated and she has been disease-free for the subsequent six months of follow-up. Expectant management was considered the most suitable follow-up option for this patient. In the follow-up period the patient visited the hospital for tumor marker studies, complete blood cell count, urinalysis, liver function tests and renal function tests and chest X-ray every three months and for computerized tomography every six months.

We plan to follow up her once in three months for first two years. As there are no established guidelines for the management of ESS because of the rarity of cases, we suggest that all cases with a diagnosis of ESS should be reported so that a proper protocol for management can be drawn up.

Discussion: Uterine sarcomas comprise a rare group of cancers. Because of the rarity of this tumor, neither preoperative diagnostic procedures nor standard therapy have yet been established. ESS typically develop in premenopausal and perimenopausal women with a mean age of 46. Rare cases have been reported of the tumor developing in connection with tamoxifen or estrogen administration, as well as after radiotherapy. Obesity, diabetes mellitus, and early menarche are reported to be associated with an increased risk of LGEES. This patient was only 20 years of age at the time of diagnosis, which is unusual although there are a few reported cases within this age group. However, she presented with a common clinical presentation of a LGEES.

In contrast to carcinomas of the endometrium, a diagnosis of LG-ESS as a mesenchymal tumor cannot be securely established using hysteroscopy and fractional curettage. Imaging procedures such as ultrasound, computed tomography, and magnetic resonance imaging are not able to display any specific characteristics of LG-ESS. Additional immunohistochemical examinations and molecularpathologic analyses may make it easier to establish a diagnosis. The tumor cells are strongly immune reactive for CD10, usually positive for smooth-muscle actin and less frequently for desmin (30%), but they are negative for h-caldesmon and HDAC8. Estrogen receptors (only alpha isoform), progesterone receptors, androgen receptors, and WT-1 are typically positive. Nuclear beta-catenin expression has been shown in up to 40% of low-grade endometrial stromal sarcomas. The most common cytogenetic abnormality of low-grade endometrial stromal sarcomas is a recurrent translocation involving chromosomes 7 and 17 t(7;17)(p15;q21)], which results in a fusion between *JAZF1* and *SUZ12* (formerly designated as *JJAZ1*).

The primary treatment for LG-ESS is surgery with total hysterectomy (without morcellation) and bilateral salpingo-oophorectomy. Cytoreduction is recommended in advanced tumors with extrauterine manifestations. It has been shown that LG-ESS are hormone-dependent. It is not clear whether the ovaries can be preserved in young, premenopausal women. Several studies have found a significantly increased rate of recurrence when the ovaries were preserved in premenopausal women. Therefore, the decision of whether or not to preserve the ovaries always needs to be critically discussed with the patient, with the potential advantage of preserving the ovaries being carefully weighed against the increased risk of recurrence. We performed hysterectomy and bilateral salpingo-oophorectomy after discussion with the patient regarding treatment modalities and high recurrence rates of this tumour.

In view of the tumor biology of LG-ESS, estrogen therapy after bilateral oophorectomy cannot be recommended. Involvement of the pelvic and para-aortic lymph nodes does not appear to have any influence on prognosis. Pelvic and para-aortic lymphadenectomy is therefore not a recommended standard procedure in patients with LG-ESS. Patients may also receive adjuvant radiation or hormonal treatment with progestational agents or aromatase inhibitors. Repeat surgery is the treatment of choice in cases of recurrence.

In order to improve the treatment options available for LG-ESS, further research studies need to be conducted in which LG-ESS is considered as a distinct entity.

Category F: Labour, Post-partum care

FO 001

Establishment of a molecular based rapid detection method to identify Group B Streptococcus in pregnant women

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Introduction and objectives: *Streptococcus agalactiae* causes Group B Streptococcus (GBS) infections in neonates including neonatal sepsis, meningitis and pneumonia. As a preventive tool, the Centers for Diseases Control and Prevention (CDC) recommends GBS screening of all pregnant women at 35-37 weeks of gestation. Culture and Polymerase Chain Reaction (PCR) based assays are used in detecting GBS. PCR assays have an additional advantage of rapid detection compared to culture that takes long turnaround time of about 36 to 72 h. Thus, the aim of this study was to develop and establish a rapid, reliable and low cost method for early detection of GBS in pregnant women in Sri Lanka.

Methods: Fifty recto-vaginal swab samples were taken from women over 35 weeks of pregnancy admitted to Teaching Hospital, Peradeniya after getting informed consent. The swabs were placed in 1 ml Todd Hewitt broth supplemented with 8 µg/ml gentamicin and transported to the laboratory in room temperature. Then they were incubated at 37°C for four hours. Next 100 µl of the broth before and after incubation were inoculated on blood agar plates supplemented with 8 µg/ml gentamicin and incubated at 37°C overnight. Beta hemolytic colonies were subjected to catalase test and catalase negative colonies were further tested with CAMP test. Direct colony PCR was performed for catalase negative colonies using primers targeting *atr* and *cfb* genes. The confirmed GBS isolates were tested to detect antimicrobial resistance (AMR) profiles as recommended by CLSI. *Streptococcus agalactiae* ATCC 12386 was used as the quality control strain.

Results: The in-house colony PCR was developed and optimized to detect both genes in GBS with the possibility of getting results within 24 hours. The minimum of five bacterial colonies were necessary to get a positive result in this colony PCR. The culture and colony PCR methods yielded GBS colonization as 22% (11/50) and 30% (15/50) respectively. Four isolates were positive for PCR but negative for CAMP. The sensitivity specificity, positive and negative predictive values of the established PCR were 100%; 89.74%; 73.33% and 100% respectively. Out of the fifteen, eight isolates were tested for AMR and the resistant percentages against ampicillin, cefotaxime, tetracycline, erythromycin, and chloramphenicol were 50%, 25%, 37.5%, 87.5% and 50% respectively.

Conclusions: The developed colony PCR is a rapid, efficient and low-cost method than the culture method for GBS screening, allowing clinicians to initiate effective and sensitive treatment within shorter time to prevent newborn infection.

FO 002

Audit on intrapartum and postpartum bladder care following vaginal delivery in a tertiary care center, Sri Lanka

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Introduction: Postpartum urinary retention following vaginal delivery is uncommon but carries significant morbidity. The incidence varies in between 0.5-14.5%. If voiding dysfunction is not recognized early, bladder over distension can lead to denervation and permanent bladder damage. Good intra-partum bladder care and prevention of postpartum urinary retention are of greater clinical importance.

Aims: To assess the level of compliance to stranded of intra and post-partum bladder care.

Study design, material and methods: This prospective audit conducted in obstetrics unit, Sri Jayewardenepura General Hospital, Sri Lanka in the period between 15/06/2018 to 14/09/2018. All the pregnant women admitted to labor suit was sampled (consecutive sampling). Data was analyzed in Excel.

Audit Standard: 100% should, Empty bladder 2-4 hourly in early labour.
Have their urine measured every void
Have urine analysis with dipstick every void
Empty bladder at the beginning of 2nd stage or before instrumental delivery.
Have had a void within 6 hours of delivery

Result: There were 322 vaginal deliveries within audit period. Out of them 38.2% of women encouraged to empty the bladder in regular interval. Urine volume measured only in 19% women and urine analysis with dipstick was not at all. Bladder empty at the beginning of 2nd stage and before instrumental delivery was done in 77.9% and 100% respectively. 72% of women have had bladder emptying before leaving labour suit but only in 18% of cases volume was measured and documented. First void recorded in 30.1% of women and measured only 16.4% cases following delivery.

FO 003

Identifying the role of mean platelet volume and platelet count at booking visit as a predictor of pre-labour rupture of membrane

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Introduction: Prelabour rupture of membrane (PROM) comprises prelabour rupture of membrane at term (TPROM) or preterm (PPROM). Prelabour rupture of membrane after 37 weeks of gestation is defined as TPROM. Rupture of membrane before 37 weeks of gestation with leakage of amniotic fluid prior to the onset of labour is defined as PPRM.

Objective: Purpose of this study is to determine the diagnostic value of Mean Platelet Volume (MPV) and Platelet Count at the booking visit for prediction of preterm PROM and term PROM.

Methods: A descriptive cross-sectional study was conducted among 346 participants. All pregnant women presented to the study setting during the study period were included. Interviewer administered structured questionnaire was used for data collection. Data were analyzed by SPSS 21.0. Receiver operating curve was used for diagnostic test accuracy and 95% confidence interval was applied for statistical significance.

Results: Predominantly primigravidae represented the study sample and the mean age was 26.67 years. Mean platelet count was $250 \times 109/L$ and mean platelet volume was 8.54fl.

Probability of predicting PPRM by the platelet count was 69.2%, and platelet volume was 85.9%. When the platelet count at the booking visit was $248 \times 109/L$ or more it helped to predict PPRM with a probability of 80% sensitivity and 57% specificity. When the MPV at the booking visit was 8.15 fl or less it helped to predict PPRM with a probability of 80% sensitivity and 75% specificity.

When $237 \times 109/L$ or more platelet count was considered as the cut off value it was possible to achieve a 76% sensitivity and 33.7% of specificity for predicting TPROM. When 9.6 fl or less MPV was considered as the cut off value it was possible to achieve a 79% sensitivity and 22 % of specificity to predict TPROM.

Conclusions: There is a possibility of predicting PPRM during the third trimester, by using the platelet count and the mean platelet volume measured during the first trimester. PPRM could be predicted when the platelet count is $248 \times 109/L$ or more and the MPV is less than 8.15 fl. It is not possible to use above mentioned parameters, to predict PROM during term.

Possibility of predicting PPRM by using the platelet count and the MPV value of the first trimester could be considered in obstetric practice.

FO 004

Reducing emergency caesarean sections, is it a possibility?

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Emergency caesarean section (ECS) has been a vital intervention in reducing the fetal and maternal morbidity and mortality around the world. But the rising rate of ECS has resulted in increase in elective caesarean section and complications of repeated caesarean sections. We analyzed the causes for ECS in nulliparous and multiparous women in a professorial obstetric tertiary care unit in Sri Lanka using a specially designed android base application, RobsonApp.

Method: The study setting was the professorial unit (ward 3 and 15) of the De Soysa Hospital for Women. A detailed analysis of the master database file of the RobsonApp was used to retrieve the data. The independent variables collected are shown in the screenshot of the RobsonApp. A mySql database was used to store the input data from the RobsonApp. It was this file which was queried using the SQL language and the data outputs are given in the results.

Results: The total sample for the study was 867 deliveries. Out of this the raw data of a subsample of 278 women who underwent caesarean section (CS) was selected for analysis. The sample composed of 126 nulliparous and 150 multiparous women. Out of nulliparous 126 there were 86 emergency caesarean sections and 40 elective caesarean sections. Out of multiparous 150 there were 58 emergency caesarean sections and 92 elective caesarean sections. Among the nulliparous 31 out of 86 (36.0%) had failure in induction of labor as the cause and 26 out of 86 (30.2%) had cardiotocography (CTG) abnormalities/ fetal distress as the cause for emergency CS. Therefore, both indications together accounted for 66.2% of all emergency CS in nulliparous women. Among the multipara 27 out of 58 (30.2%) had failure to progress in labor after induction as the cause and 13 out of 58 (22.4%) had CTG abnormalities as the cause for emergency CS. Therefore, both indications together comprised 52.6% of all multipara emergency CS.

Conclusions and implication: Reduction of unnecessary inductions of labour will have a huge impact on reducing the emergency caesarean sections, this can be achieved by adherence to proper evidence-based guideline for indications for labour inductions. Proper diagnosis of fetal distress and correct interpretation of CTG will help in reducing the ECS for fetal indications. This can be achieved by proper training and continued professional development of labour ward staff.

Category G: Maternal morbidity and mortality

GO 001

Prevalence of postpartum musculoskeletal morbidity among women who delivered their babies in Teaching Hospital Peradeniya

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Introduction and objectives: Postpartum period is the critically important part of the obstetric care but most neglected period for the women. The true burden of maternal morbidity is still not known, because of the difficulty in accurately measuring maternal morbidity in the absence of a generalized definition and of standard identification criteria and by the inaccuracy of vital records due to inadequate health information systems in developing countries.

This study is aimed to find out the prevalence of postpartum musculoskeletal morbidity among women who delivered their babies in Teaching Hospital Peradeniya and to investigate the demographic characteristics association with the musculoskeletal morbidity, to assess the antenatal care visit and supplementation relation to the musculoskeletal morbidity and to find out the association between the postpartum complications and musculoskeletal morbidity.

Methods: This is a descriptive cross-sectional study. A convenient sampling method is used, and all consenting mothers recruited for the study. 230 mothers participated this study. The study was conducted using an interview administered questionnaire, For the analysis, the data were entered Microsoft Excel Software and coded. Percentages were calculated different musculoskeletal morbidities using standardized musculoskeletal questionnaire tool.

Results: 80.4% of mothers have musculoskeletal morbidity. Most of the mothers (84.0%) were between 25 and 29 years old. More than half of the mothers (62.6%) were having parity of 2 to 4. 79.4% of mothers have muscle pain and 70.4% of mothers have Joint pain. Most of the mothers have lower back pain (70.3%). mothers have difficulties in daily activities (11.7%), trouble in walking (12.2%), difficulty in breast feeding (5.2%) and trouble with sleep due to these musculoskeletal morbidities. There was no a statistically significant relationship between Body Mass Index and musculoskeletal morbidity.

Conclusion: The incidence of postpartum musculoskeletal morbidity was high, with lower back pain, knee pain, ankle pain, hip pain, wrist pain, elbow pain, upper back pain and shoulder pain. There is no statistical association between demographic variables and musculoskeletal morbidity. There is no association between antenatal care visit, supplements and morbidity. There is significant association between complications and morbidity.

GO 002

Outcome of trial of labour after cesarean (TOLAC) in a Sri Lankan tertiary care center and development of a risk-prediction model

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Introduction and objectives: The rate of caesarean sections (CS) is rapidly rising, causing maternal morbidity and burdening the health system. Hence previous CS is the commonest indication; Trial of Labor After Caesarean (TOLAC) becomes an important alternative. TOLAC however can cause adverse outcomes. A scoring system to identify women who can achieve vaginal birth after cesarean (VBAC) following TOLAC is a timely need.

Objective: This study aimed to determine the outcome of TOLAC in a tertiary level maternity hospital and to develop a model to predict VBAC.

Methodology: A retrospective cohort study based of secondary data was conducted at De Soyza Maternity Hospital. Following approval from Ethics Review Committee of Faculty of Medicine Colombo. Data was extracted from health records of 328 mothers who had presented for delivery with previous one CS, and no contraindication for vaginal delivery (VD). Factors associated with VBAC were analyzed using Chi-square followed by binary logistic regression at significance of $P < 0.05$. Variables significantly associated with VBAC were assigned points based on strength of association and a scoring system was developed.

Results: Mean age was 31.19 years and 9.1% had parity >3 . While 17.4% had a history of VD, 9.8% had undergone VBAC. Majority of previous CS (63.1%) were emergency CS, commonest (43.9%) indication being fetal distress (FD). Majority had normal CTG (91.5%) and Modified Bishops Score (MBS) <7 (70.9%) on admission. In the index pregnancy, 125 (38.1%) underwent TOLAC of which 81 (24.7%) succeeded while 44 (13.4%) failed leading to emergency CS. Majority of 51.8% had undergone elective CS and 10.1% emergency CS for other reasons.

Mothers who had undergone TOLAC ($n=125$) were selected for model development, of whom, 64.8% ($n=81$) had achieved VBAC.

Previous VD ($p=0.053$), previous VBAC ($p=0.025$), FD not contributing for preceding CS ($p=0.010$), MBS on admission >7 ($p=0.003$), higher cervical effacement on admission ($p=0.008$), maternal age <30 years ($p=0.066$) showed significant associations with VBAC. Binary logistic regression revealed following as determinants of VBAC: history of VBAC ($OR=11.4$, $p=0.05$), FD not being an indication for previous CS ($OR=5.5$, $p=0.003$), MBS >7 on admission ($OR=14.4$, $p=0.048$) and maternal age <30 ($OR=3.5$, $p=0.027$). The scores assigned to each factor were 11, 5, 14 and 3 respectively with a total score of 33.

Conclusion: This scoring system can be utilized to predict the success of TOLAC and thereby reduce the rate of unwarranted CS. The prediction model is recommended to be validated in a further study.

GO 003

Taming the killer' – strategies to minimize placenta praevia and accreta related complications

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Introduction and objectives: Placenta praevia and placenta accreta are conditions encountered during pregnancy which are associated with significant maternal morbidity and mortality. Interventions such as performing the caesarean section by a senior Obstetrician in the presence of a senior Anaesthetist and blood for transfusion at hand have been recommended to minimize complications. Pre-operative ultrasonography to precisely determine the placental location and the optimal site of the skin and uterine incisions, and suspicion and diagnosis of placenta accreta in cases of placenta praevia has proved to be crucial in management.

Methods: A retrospective analysis of eight cases of suspected placenta praevia accreta operated between July 2018 and February 2019 was performed. The mode of anaesthesia, the types of skin and uterine incisions, operating time, the need for hysterectomy, the need for blood transfusions pre, intra, and post operatively, admissions to intensive care unit, post-operative hospital stay, and serious maternal morbidity were assessed.

Results: Ultrasonographical mapping of placenta was performed in all cases. Caesarean section was performed under general anaesthesia in six cases and sub arachnoid block in two cases. All surgeries were performed via suprapubic transverse skin incisions and transverse incisions on the lower segment of the uteri. However, the incisions on the uteri had to be made at a slightly higher location than usual in order to avoid the placenta in two cases. The mean duration for surgery was 1 hour and 26 minutes. However this increased to 2 hours and 10 minutes in the two cases in which hysterectomy was performed. Ligation of bilateral internal iliac arteries was performed in all but one of the cases. Transfusion of red cell concentrates had to be performed pre-operatively in four cases (mean - 1.75), intra-operatively in five cases (mean - 1.4) and post-operatively in three cases (mean 2). None of the women had to be admitted to the intensive care unit. All the women were discharged following an average of 5.25 days' hospital stay during the convalescence. There were two cases of postpartum pyrexia and one case of urinary tract infection. Urinary catheter had to be kept in situ for five days during the post-operative period in one woman as the bladder had to be dissected extensively although there had been no injury.

Conclusions: Significant morbidity and mortality due to placenta praevia accreta can be avoided by careful preoperative planning, active involvement of seniors, timely interventions such as bilateral internal iliac artery ligation and early recourse to hysterectomy.

GO 004

Effects of early versus delayed umbilical cord clamping during ante-partum lower segment caesarean section on placental delivery and post operative blood loss: A randomized controlled trial

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Aims: To assess the effects of Delayed cord clamping (DCC) during ante partum lower segment caesarean section (LSCS) on placental delivery and post operative haemorrhage.

Methods: A Randomized Controlled Trial was carried out on 156 six women undergoing antepartum LSCS between 37 to 39 weeks gestation at the Academic Obstetric Unit, Teaching Hospital Mahamodara, Galle. One surgeon carried out the LSCS and the same operative techniques were used. The umbilical cord of the baby was clamped at <15 seconds (n=52) or between 60-75 seconds (n=52) or between 120-135 seconds (n=52) according to a pre determined randomized allocation sequence. Post operative haemorrhage, time taken for delivery of placenta, requirement of manual removal of placenta and additional uterotonics, and reduction of maternal haemoglobin and haematocrit 48 - 60 hrs after LSCS, were measured. The neonate was monitored for 72 hours.

Results: There were no significant differences in postoperative haemorrhage or neonatal morbidity between the groups. Although there was a clinically non significant increase in the time taken for placental delivery, and a non significant trends towards a reduction in the need for manual removal of placentae and additional utero-tonics with DCC. There was a non-significant trend towards an increased requirement of phototherapy for neonatal jaundice with DCC.

Conclusion: DCC during antepartum LSCS is not associated with a significant increased risk of post operative haemorrhage, manual removal of placenta, or maternal or neonatal morbidity.

Category I: Reproductive medicine

IO 001

Prevalence of genetic polymorphism in the subfertile population

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Introduction: In this modern era of gynecology and obstetrics, genetics has come to play a major role in many aspects. As more and more reports emerge citing the contribution of chromosomal abnormalities or aberrations to adverse obstetrics outcomes as well as subfertility, this study investigates the incidence in the subfertile population. Changes in chromosomal level were identified by karyotyping both partners and were followed up with the relevant management options. Carrying other important risk factors like advanced maternal age, a history of recurrent miscarriages and significant co-morbidities were also taken into consideration.

Objective: To assess the incidence and possible outcomes of various genetic polymorphisms in the subfertile population of females attending Asiri Surgical and Asiri Central Hospitals.

Method: Over the time period of 30 months from January 2017 to June 2019, 92 patients were screened and detected to be having some form of a genetic polymorphism. From that group, 62 are subfertile and currently being followed up with assisted reproductive techniques.

Results: Genetic polymorphisms identified in the subfertile population, where both partners were screened, include Yqh+, Iqh+, 9qh+, 9qh-, 16qh+, 14ps+, 21ps+, 14PSQ, Pstk+, 13pstk+, 14pstk+, 15pstk+, 21pstk+, 22pstk+, 47XXY[1]/46XY[19], 45XX t(13, 14)(q12.1, q11.2), 47XXX 9qh+[1]/46XX 9qh+[39] and 47XX +mar.

The incidence of genetic abnormalities in the subfertile population are Yqh+ (3%), Yqh (10%), 9qh+ (24%), 9qh- (3%), 16qh+ (2%), 14ps+ (2%), 21ps+ (2%), 14PSQ (2%), Pstk+ (6%), 13pstk+ (24%), 14pstk+ (21%), 15pstk+ (37%), 21pstk+ (29%), 22pstk+ (26%), 47XXY (1)/46XY (19) (2%), 45XX t(13, 14)(q12.1, q11.2) (2%), 47XXX 9qh+[1]/46XX 9qh+[39] (2%) and 47XX +mar (2%).

Incidence of recurrent miscarriages in this high risk population has the following underlying genetic abnormalities of Yqh+, Yqh-, 1qh+, 9qh+, 16qh+, 14PSQ, Pstk+, 13pstk+, 14pstk+, 15pstk+, 21pstk+, 22pstk+ and 47XXX 9qh+[1]/46XX 9qh+[39].

Conclusion: By investigating the at risk females attending clinic in these hospitals, we can identify the incidence of genetic polymorphisms in this population as well as see its significance and effect on fertility. When this population conceives, appropriate high risk fetal screening programs and intensive care can be provided throughout their pregnancies.

IO 002

Progesterone level and clinical pregnancy outcome

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Introduction and objectives: The role of progesterone is to support implantation in an estrogen-primed endometrium. Serum progesterone (P4) concentrations are low, <1.5 ng/ml, during the normal early follicular phase of ovulatory cycles but tend to increase gradually 12-24 h before the onset of luteinizing hormone (LH) surge. Premature progesterone rise (PPR) is defined as a rise in serum progesterone concentrations toward the end of the follicular phase or on the day of trigger above a threshold concentration, which is usually arbitrarily defined. A progesterone rise during the late follicular phase has been considered a negative predictive factor for clinical outcome in both GnRH agonist and antagonist protocols.

The objective of this study is to assess the level of serum progesterone on the day of hCG administration and clinical pregnancy outcome in IVF cycles.

Methodology: The study was undertaken after the ethical approval from the faculty of Medicine, University of Colombo. The case notes of 121 couples who underwent IVF at a tertiary care reproductive treatment center were analyzed retrospectively. The serum progesterone level on the day of hCG injection and the achieving clinical pregnancy was studied.

Patients included in this study were subjected to agonist protocol (n = 50) or antagonist protocol (n = 71). All patients Serum Progesterone level 36 hours prior to the ovum pickup was assessed.

Serum β-hCG levels were recorded 12 days after embryo transfer. β-hCG values above 30mIU/ml, with doubled value within 2 days were considered positive. Intra uterine pregnancy demonstrated with Ultrasound scan after 4 weeks of Embryo replacement was considered as clinically pregnant.

Groups were compared for quantitative data, which were presented as mean and standard deviation and were compared using SPSS. Probability (P) value <0.05 was considered statistically significant.

Results: Patients who participated in this study were between 23 and 43 years. Out of 121 patients whom underwent IVF 27 became clinically pregnant. The mean age of patients who clinically became pregnant was 34.7 while of those who didn't was 35.3. The mean progesterone value of the patients who became pregnant was 0.89ng/ml while the patients who did not conceive was 1.07ng/ml. Progesterone level on the day of hCG injection is statistically significant (p=0.12) in predicting successful clinical pregnancy. The overall clinical pregnancy rate per embryo transfer was 22.3%

Conclusion: There is a statistical significance ($p=0.12$) in progesterone levels in those patients who became clinically pregnant and those who were not. Higher progesterone levels in IVF cycles is associated with low pregnancy rates. It's appropriate to freeze all embryos and perform frozen embryo replacement in patients whose progesterone level 36 hours prior to ovum pick up is high.

Category J: Risk management and clinical governance

JO 001

Obstetric emergencies; An audit on knowledge and how it can be improved with a workshop

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Introduction and Objectives: Proper management of obstetric emergencies depends on the availability of a skilled, knowledgeable health staff. Auditing is a crucial step in maintenance of these health standards. Objectives of this audit were to ascertain the existing knowledge on obstetric emergencies among the antenatal and labour ward staff, to conduct a skills and drills workshop to improve the knowledge, re-auditing whether the knowledge has been improved.

Methods: Cross sectional questionnaire based approach was taken to collect data from the ward 23 and labour ward staff of the District General Hospital Matara. Audit cycle was planned along with a skills and drills workshop. Questionnaire to assess the basic knowledge on obstetric emergencies was given at the beginning of the workshop. Then the workshop was conducted by the research team covering major obstetric emergencies including postpartum haemorrhage, instrumental delivery, cord prolapse, shoulder dystocia and basic knowledge on labour, partogram, and communication. Knowledge was reassessed at the end of the workshop using the same questionnaire.

Results: A total of 33 participants were distributed as 17 (51%) nursing officers, 10 (30%) public health midwives, and 6 (19%) medical officers. Average pre-workshop knowledge on postpartum hemorrhage, shoulder dystocia and cord prolapse, were 54%, 53%, and 42% respectively. This was increased to 87%, 70% and 66% respectively following the workshop. Pre and post-workshop scores on forceps delivery (41%, 58%) and vacuum extraction (27% 40%) were among the lowest scores. Although the basic knowledge on labour scored only 50% the knowledge on partogram was high as 70%. The post-workshop scores for these were 68% and 75% respectively. Communication; another key element in managing obstetric emergencies had a pre and post-workshop score of 55% and 86% respectively. Mean score of the total assessment was increased from 51% to 76% by the end of the workshop.

Conclusions: Opportunities to train and improve knowledge are sparse in peripheral settings. The lack of knowledge to handle obstetric emergencies pose a significant threat to patients' life. A single one day skills and drills session could improve the basic knowledge from 51% to 76%. However continuous professional development with frequent similar sessions are needed to maintain a quality health service.

JO 002

Clinical audit of instrumental vaginal deliveries associated perineal trauma at ward 05 Teaching hospital Kandy in 2018

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Background: Instrumental vaginal deliveries are essential part of the obstetrician's armamentarium. It consists of both forceps and vacuum. Review of delivery statistics shows considerable variation in incidence of instrumental vaginal deliveries but range usually between 10% to 20% for all deliveries. Most recent figures in England showing 12.8% with 6.8% being forceps and 6% being vacuum. Second stage caesarian section associated with the increase maternal and neonatal morbidity. Thus, it requires prevention of second- stage caesarian section is safely possible. Thorough assessment and careful selection of the mother for instrumental delivery is crucial as failed instrumentation is an indication for caesarian section and increase risk of maternal and neonatal morbidity with inexperience and unsafe hands.

Objective: To assess the instrumental delivery related perineal trauma in ward 05, Teaching hospital Kandy.

Methodology: This was retrospective audit carried out at ward 05, Teaching hospital Kandy (THK), regarding the instrumental vaginal deliveries (IVD) performed during may 2018 to December 2018. Total number of 58 deliveries audited. Parameters assessed are age, parity, maternal height, type of instrumental used (forceps or vacuum), past section, onset of labour (spontaneous or inductions), degree of perineal trauma.

Results: Overall rate of instrumental deliveries was 9.3%. Total number of instrumental vaginal deliveries are 58 out of that there were 41 (70.7%) forceps deliveries and 17(29.3%) vacuum deliveries. Instrumental vaginal deliveries performed on teenage (15-20years) pregnancies 10 (17.2%), 21 to 38years was 46 (79.3%), advance maternal age (>39years) was 2 (3.4%) and 43 (74.1%) in primigravida and 15 (25.8%) in multiparous mothers. As far as indication concern, fetal distress in second stage 23 (39.7%), delayed second stage 32 (55.2%), maternal heart disease 1 (1.7%) and 36 (62.1%) for spontaneous onset of labour and 22 (37.9%) for inductions. Mothers experienced first degree tears in 5 (8.6%), second degree tears 10 (17.2%), third degree tears 6 (10.3%) and forth degree tears 3 (5.2%) and majority not experienced any tears 34 (58.6%) other than episiotomy.

Conclusion: Rate of instrumental vaginal deliveries in this unit goes with global rate and most frequent indication for the instrumentation would be delayed second stage and majority of the instrumental deliveries offered for the primigravida than the multiparous mothers. Study reveals instrumentation causing second degree perineal injuries than the other perineal injuries with majority not experienced any tears other than episiotomy. So, it reveals instrumental deliveries are very safe method of expedite of delivery with experienced hands.

Recommendation: Care full selection of the patient and operator experience is crucial for the success full instrumental delivery and prevention of the perineal injuries and it improves the second stage caesarian section related maternal and perinatal morbidity. It requires continues education and the training of skills.

JO 003

Audit on deficiencies of Bed head ticket (BHT) documentation fallowing instrumental vaginal deliveries at ward 05, Teaching hospital Kandy in 2018

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Introduction: Incidence of the instrumental vaginal delivery (IVD) varies widely range usually between 10% to 20% for all deliveries. Most recent figures in England showing 12.8% with 6.8% being forceps and 6% being vacuum. Allowing a longer passive second stage for descent lead to less rotational deliveries and possibly a reduction instrumental delivery and second stage caesarian section. Indications for IVD include delay in the second stage of labour due to inadequate uterine activity, malposition with relative disproportion, maternal exhaustion and fetal compromise. In addition, shorten second stage by instrumentation are common in Women with severe cardiac, respiratory or hypertensive disease or intracranial pathology. As it is emergency procedure, multiple teams' involvement, poor coordination, late decision making result in adverse outcome of neonate and the mother eventually increase neonatal and maternal morbidity. Therefore medical documentation in bed head ticket is extremely important.

Objective: To assess the deficiencies of bed head tickets documentation fallowing instrumental vaginal deliveries in ward 05, teaching hospital Kandy

Methodology: This was retrospective audit carried out at ward 05, Teaching hospital Kandy (THK), regarding the instrumental vaginal deliveries (IVD) performed during may 2018 to December 2018. Total number of 58 deliveries audited. Parameters assessed are mentioning of time frame, procedure name, conducted person, indication, estimated blood loss, and signature of conducted person.

Results: Bed head tickets (BHT) of the 58 patients was assessed. Proper BHT documentation of the procedure was done in 57 (98.3%) and not documented in 1 (1.7%). Correct mentioning of the time frame was done in 43 (74.1%) and not done in 15 (25.9%). Indication was mentioned in 57 (98.3%) and not mentioned in 1 (1.7%). Conducted persons name mentioned in all most all cases and it was 100%. Estimated blood loss assessed only in 9 (15.5%) and not done in 49 (84.5%). Digital rectal examination was documented in 19 (32.8%) and not mentioned in 39 (67.2%). Conducted persons signature was not in BHT all most all cases.

Conclusion: Still medical documentation in BHT was not up to the standards. Audit revealed number of deficiencies in documentation such as no documentation according to the time frame, not mentioning of digital rectal examination findings, no assessment of estimated blood loss and not mentioning the conducted persons signature.

Recommendation: Proper training and the awareness of the health care staff regarding important of the medical documentation and continuous supervision will be needed.

Category L: Unclassified

LO 001

Body esteem and its relationship with sociocultural factors in women with PCOS in Sri Lanka

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Introduction and objectives: Long term bodily changes associated with polycystic ovary syndrome (PCOS) can affect self-esteem of such women. However, differences have been observed in the way body is evaluated in Eastern and Western cultures. Present study assessed the body esteem and its relationship with sociocultural factors of women with PCOS.

Method: A descriptive cross-sectional survey was conducted with hundred (N=100) women with PCOS at endocrine, subfertility and gynecological out-patient clinics of De Soysa Hospital for Women. Body Esteem Scale (BES) and a general information sheet were self-administered.

Results: Body esteem was reported as perceptions of weight (M=1.58, SD=0.92), attributions (M=1.84, SD=0.74) and appearance (M=2.49, SD = 0.81). Age showed no linear associations with all the three sub scales of BES, perceptions of appearance ($r(100) = 0.013$, $p < 0.898$) weight ($r(100) = -0.165$, $p < 0.100$) and attributions ($r(100) = 0.018$, $p < 0.858$). Series of Independent samples T tests performed separately on appearance and attribution and Mann Whitney U tests on weight revealed no significant group differences based marital status ($F(98) = 8.66$, $p = 0.69$), ($F(98) = 4.48$, $p = 0.09$), ($U = 0.914$, $p = 0.05$), parity/nulliparity ($F(98) = 2.307$, $p = 0.919$), ($F(98) = 1.398$, $p = 0.622$), ($U = 0.289$, $p = 0.05$) and follow up status of diet exercise programme ($F(98) = 2.05$, $p = 0.865$), ($F(98) = 0.28$, $p = 0.872$), ($U = 0.537$, $p = 0.05$) respectively.

Series of one-way ANOVA performed separately on appearance and attribution and Kruskal-Wallis H tests on weight revealed no significant group differences based on ethnicity ($F(2,97) = 1.541$, $p = 0.129$), ($F(2,97) = 2.103$, $p = 0.128$), ($F(2,97) = 1.218$, $p = 0.544$), education level ($F(4,95) = 0.910$, $p = 0.462$), ($F(4,95) = 1.097$, $p = 0.362$), level ($F(2,4) = 4.325$, $p = 0.364$) and income level ($F(3,96) = 2.319$, $p = 0.080$), ($F(3,96) = 0.534$, $p = 0.660$), ($F(2,23) = 1.286$, $p = 0.732$) respectively.

Conclusions: Perceptions of weight was the most affected domain in body esteem and perceptions of appearance was the most preserved. Sociocultural factors: marital status, whether having children, follow up status of diet exercise programme, ethnicity, educational level and income level showed no significant relationship with perceptions of body appearance, weight and attributions of women with PCOS.

LO 002

Rare case of spinal muscular atrophy (SMA): A case report

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Introduction: Spinal Muscular Atrophy (SMA) is an autosomal recessive disorder associated with deletion of exons 7 and 8 of Survival Motor Neurone (SMN) gene. This resulted in diffuse proximal and distal muscular weakness. There

are two genes associated with SMA, including SMN1 (Survival Motor Neuron 1) and SMN2 (Survival Motor Neuron 2). According to available data, there are for subtypes of SMA depending on the onset and the severity of the disease. Type 0 SMA has a neonatal onset with progressive muscular weakness and fatal outcomes. Type 1 has the onset of SMA within six months and affected babies die within 2 years. Type 2 SMA has the onset after six months with muscular weakness. They are able to sit but are not able to walk. Type 3 SMA has mild disease and they are able to walk with mild weakness. Type 0 SMA neonates are hypotonic with poor respiratory effort. Diagnosis is made by clinical suspicion and confirmed by genetical studies. Here we have discussed a case of type 0 SMA with fatal neonatal outcome.

Case report: 33 year old primi mother who was diagnosed to have fibroid complicating pregnancy and primary Subfertility was admitted at period of amenorrhoea of 38 weeks for elective cesarean section. Surgery was performed as an elective procedure at day time and a single baby was delivered. Baby was significantly hypotonic with poor respiratory effort. She was intubated and taken to special care baby unit. Clinical suspicion was type 0 SMA. Baby expired on day 2 postpartum. Genetical studies confirmed the diagnosis of SMA. Both parents were screened for SMA and found to have autosomal recessive for SMA with 25% risk recurrence. Genetical counseling was arranged and possible options (donor insemination, donor ovum and adoption) were discussed.

Conclusion: Clinical suspicion of SMA has to be made when a neonate presented with hypotonia and poor respiratory effort. The diagnosis is confirmed by genetical studies. Genetical counseling of parents is the key principle involved in management of SMA due to 25% risk of recurrence. Possible options for reproduction include donor insemination, donor ovum and adoption.

LO 003

Good fetal and maternal outcomes following an emergency cesarean section during acute dengue infection: A case report

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Introduction: Dengue infection during pregnancy carries an increased risk of maternal and neonatal complications. It is evident that dengue fever increases the risk of maternal mortality by 3 times where as dengue haemorrhagic fever increases the risk by 450 times. Further it has found that acute dengue infection during peripartum period carries even higher risk of maternal mortality due to PPH and multi organ failure. Cesarean section during active dengue infection is not recommended due to increased risk of maternal mortality. Here we are discussing a case of emergency cesarean section due to active dengue infection with footling breech presentation and premature prelabour rupture of membranes (PPROM).

Case report: 18 year old primi mother with period of amenorrhoea of 36 weeks presented with 2 days history of fever and PPRM for 4 hours duration. On examination she was found to have footling breech presentation with ruptured membranes. Dengue infection was confirmed with positive NS1 antigen levels later confirmed by dengue IgM antibodies. She was in the pre critical stage. Footling breech presentation carried higher risk of cord prolapse, increased perinatal morbidity and mortality, obstruction of after coming head and possible instrumental delivery. Instrumental delivery (of after coming head) carries even higher risk of maternal trauma, which might cause torrential bleeding specially during dengue infection. After considering risk and benefits, a multidisciplinary team (MDT) decision was taken to proceed with emergency cesarean section. Emergency cesarean section was carried out with meticulous monitoring. Intravenous Tranexaemic acid 1 gram was given prophylactically at the beginning and intra operative blood loss was replaced with packed red cell concentrates. She was managed at intensive care setup post operatively and restricted fluid management was given. She entered critical phase post operative day one. Intravenous Tranexaemic acid 1 gram was continued 8 hourly till the recovery.

Conclusion: Pregnant women suspected to have dengue fever should be admitted and investigated properly. However dengue in pregnancy may be difficult to diagnose due to physiological changes in pregnancy. Meticulous monitoring, restricted fluid management, replacement of fluid deficit with blood, intensive care and good supportive care are the cornerstones of management of dengue infection specially during the peripartum period.

LO 004

Serum vitamin D levels and exposure to sun – a study among a population of pregnant mothers in the Colombo district

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Background and objectives: Epidemiologic studies from South Asian countries have reported vitamin D deficiency among all age groups. Sunlight is one of the major sources of vitamin D. Countries near to equator receive more sunlight throughout the year. However, sun-seeking behaviour is uncommon in these populations due to hot climate. Thus, the aim of this study was to determine the effect of sun exposure on serum vitamin D levels among a population of pregnant mothers in the Colombo district.

Methods: A representative sample of 346 pregnant mothers was recruited from MOH offices in the Colombo district. Ethical clearance was obtained from university of Sri Jayewardenepura. An interviewer administered questionnaire was used for data collection. Types of clothes worn, duration of sun exposure, exposed body surface area (% BSA) during outdoor activities and dietary patterns were recorded. Sun index was calculated as “Hours of sun exposure per week * fraction of BSA exposed to sunlight”. A venous blood sample was drawn for laboratory analysis of vitamin D and parathyroid hormone (PTH). Data were analysed using SPSS software version 15.0.

Results: Mean age of the study population was 29±6 years. Mean serum vitamin D and PTH levels were 18.8±8.0 ng/mL and 25.8±12.0 pg/mL respectively. Mean exposure to the sun and the %BSA were 104±96 minutes/day and 42±12% respectively. Majority of the mothers (75.4%) in this population had a practice to wear the maternity frocks as a regular attire, which exposed the body surface of approximately 48%. Vitamin D deficiency/insufficiency (<20 ng/mL) was found in 61.6%. Dietary vitamin D levels didn't have a significant correlation with serum vitamin D levels. Serum vitamin D levels had a significant positive correlation with exposed %BSA ($r=0.250$; $p=0.000$) and duration of the sun exposure ($r=0.309$; $p=0.000$) also the sun index had a significant positive correlation with serum vitamin D levels ($r=0.342$; $p=0.000$) after considering the confounding effects of dietary vitamin D levels.

Conclusions: Vitamin D deficiency/insufficiency was high in our population. Duration of exposure to sun might have had an influence on serum vitamin levels in this population. National policies that include fortification and supplementation of vitamin D don't exist as a routine practice in Sri Lanka. Thus, further studies are needed to clarify the scenario.

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LO 005

Primary anti phospholipid syndrome presenting with fever during postpartum period

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Introduction: Antiphospholipid syndrome (APLS) is an autoimmune disorder associated with pregnancy complications such as pre-eclampsia, thrombosis, autoimmune thrombocytopenia, fetal growth restriction and fetal loss. It can occur as a primary condition, or as a secondary condition with systemic lupus erythematosus (SLE) or other systemic autoimmune diseases. A wide range of clinical presentations may make it difficult to diagnose APLS in certain situations. Although thrombosis is a known manifestation, involvement of visceral vessels is not a common finding. We describe a case of primary APLS who presented with fever.

Case Report: A 29 years old women in her 4th pregnancy with previous three vaginal deliveries. Her previous pregnancies were without any complications. In the index pregnancy she had several episodes of antepartum haemorrhage since 24 weeks and was conservatively managed until 35 weeks. At 35 weeks she went into preterm labour. Her amniotic fluid was blood stained suggestive of old abruptions. However the cardiotocograph remained normal throughout. She delivered a baby weighing 2.3 kg and macroscopic examination of placenta showed multiple old abruptions. On postpartum day two she presented with right iliac fossa pain, fever associated with chills. Her other vital signs remained normal.

Laboratory work up showed raised inflammatory markers (CRP 312) and neutrophil leukocytosis. Her hemoglobin had dropped from 10 g/dl to 7.2g/d and Platelet count was 7.13×10^3 . Her blood cultures were sterile. CT scan showed a right pelvic mass which prompted the team to perform a laparoscopy. Finding of unusual thick mass adjacent to right fallopian tube necessitated a laparotomy and excision of that mass.

However, fever lasted 2 weeks despite IV broad spectrum antibiotics. Histology revealed a fibrosed vein and this finding raised the suspicion of a thrombotic event.

Further investigations revealed strongly positive lupus anticoagulant. Immediate therapeutic dose of heparin commenced. Blood picture revealed a reactionary thrombocytosis and coagulation profile remained unremarkable.

Further MRI of upper abdomen and pelvis was organized and it showed peripheral inflammation favoring thrombosis of right ovarian vein and edematous right ovary and right adnexa. There was a significant thrombus in the right ovarian vein extending from its origin to inferior vena cava. This finding confirmed the thrombotic event due to APLS in pregnancy. Fever and thrombocytosis gradually settled. Later she was discharged with warfarin.

Conclusion: Postpartum fever needs careful evaluation to avoid serious complications. Due to varied presentations of APLS diagnosis can be delayed in patients who presents with atypical clinical manifestations. However multi-disciplinary involvement could help to arrive at an early diagnosis and initiate appropriate management. APLS should also be considered as a differential diagnosis of patients presents with fever in the postpartum period.

LO 006

A rare case report of ovarian ectopic pregnancy

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Background: An ectopic pregnancy is any pregnancy implanted outside of the endometrial cavity. Incidence of ectopic pregnancy is around 1% (1 in 90 pregnancies). The most common site is fallopian tube particularly in ampullary region. Primary ovarian pregnancy is a rare type of ectopic pregnancy accounting to only 0.15-3%. Transvaginal ultrasonography plays an important role in diagnosis. Ultrasonic features suggestive of ovarian pregnancy include empty uterus with wide echogenic ring with an internal anechoic area on the ovary with or without foetal cardiac activity or yolk sac. Pre-operative diagnosis is still challenging. Diagnosis is usually confirmed surgically and histologically as it is difficult to distinguish from other ovarian pathologies such as corpus luteal cysts, tubal ectopic pregnancy stuck to the ovary and ovarian tumours.

Case Report: A 29-year-old, nulliparous woman was admitted with mild lower abdominal pain and per vaginal spotting at the period of amenorrhoea of 7+2 weeks. Her general and systemic examination was normal except right adnexal tenderness. She had a positive urine pregnancy test. Transvaginal ultrasound scan (TVS) revealed a normal size uterus with an empty uterine cavity and complex echogenic adnexal mass measuring 2.7cm x 3.1cm with small amount of free fluid in the pouch of Douglas.

As she is haemodynamically stable planned for expectant management with the suspicious of ruptured corpus luteal cyst. Her serum β -hCG was 2437 mIU/ml. Diagnostic laparoscopy was performed the following day with the suspicion a of ruptured tubal ectopic pregnancy. Laparoscopy revealed haemoperitoneum around 100ml, normal bilateral tubes and ruptured ovarian cyst. Laparoscopic enucleation of the ovarian lesion was performed, and specimen was sent for histological analysis. Postoperative serum β -hCG was performed on day 02 and it dropped to 246 mIU/ml which excluded a possibility of missed ectopic pregnancy or a ruptured corpus luteum.

Patient had an uneventful recovery. Histopathology revealed an ovarian ectopic pregnancy. Her urine hCG was negative at 3 weeks.

Discussion: Ovarian ectopic pregnancy can be difficult to diagnose with certainty preoperatively, so the diagnostic laparoscopy has to be considered whenever ultrasound findings are suspicious. Spiegelberg criteria are used to diagnose ovarian ectopic pregnancy which includes sonography, surgical findings and histology. A complex echogenic adnexal mass with free fluid in the pouch of Douglas can represent a ruptured ovarian ectopic pregnancy. A single serum β -hCG should be carried out at diagnosis to help with management. Possible surgical management options are enucleation, wedge resection and oophorectomy by laparotomy or laparoscopy. After surgical treatment, the histopathology result will confirm the diagnosis of ovarian ectopic pregnancy.

In our index case, ovarian lesion was clearly visualized during the laparoscopy without any other abnormalities and therefore enucleation was done with successful haemostasis while preserving maximal amount of ovarian tissues.

LO 007

A cost consequence analysis on vaginal birth after caesarean section versus elective repeat caesarean section

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Introduction and objectives: The caesarean section rates seem to be rising all over the world, for which one of the main reasons are repeat caesarean sections. This has important health economic implications especially for low resource settings. The objective of this study was to compare the outcomes and costs of vaginal birth after caesarean section (VBAC) versus elective repeat caesarean section (ERCS).

Methods: A cost-consequence study comparing the outcomes and costs of VBAC versus ERCS was done in the professorial gynecology unit of the North Colombo Teaching Hospital (NCTH), Ragama. Pregnant women with one previous caesarean section who delivered at NCTH Ragama from April 1st 2018 to 31st March 2019 were included. Exclusion criteria were; multiple gestations, placenta praevia, morbidly adherent placenta, estimated fetal weight of less than 2.5kg and more than >4kg, patients undergoing emergency caesarean section for causes unrelated to labour and other congenital anomalies in the baby. The primary outcome is postpartum hospital stay. The other secondary outcomes are; maternal and neonatal complications, cost of postpartum hospital stay, cost of neonatal intensive care. Data were collected from hospital records. Analysis was by intention to treat.

Results: There were 67 and 153 patients in the VBAC and ERCS groups respectively. The VBAC success rate was 50.7% with 34 successful cases including seven instrumental deliveries. The median parity [VBAC 2 (2-2) versus ERCS 2 (2-2)] and birth weight [VBAC 3.08 (2.68-3.44) versus ERCS 3.08 (2.84-3.34)] were comparable for both groups. The median postpartum hospital stay was 2 with an interquartile range of (1-3) and (2-2) for both VBAC and ERCS. APGAR scores were 10 with an interquartile range of (10-10) for both categories. The maternal costs were significantly different between the two groups with 25,870 (23,560-30,260) versus 24,600 (24,280-25,590) between VBAC and ERCS groups ($p=0.01$). There was no significant difference in neonatal costs between the two groups with 0 (0-0) versus 0 (0-160) between VBAC and ERCS groups ($p=0.52$). There was no significant difference in total costs between the two groups with 26,190 (23,560 - 31,930) versus 24,280 (24,280 - 26,250) between VBAC and ERCS groups ($p=0.06$).

Conclusions: VBAC appears to be more favourable when maternal and neonatal complications are considered. The finding was that there was no significant difference in postpartum hospital stay and costs between VBAC and ERCS may raise serious clinical concerns with possible implications for health policy stakeholders.

LO 008

Conscious parenting starts in-utero

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Parenting with the awareness that, from preconception all the way through postnatal development can be profoundly influenced by parents' thoughts, attitudes and behaviours. It is well established that the genetic blue print is merely the starting point. This genetic blue print is evolved through the influence of the environment from the time of conception continues to shape us emotionally, psychologically and biologically through the childhood.

Adolescence and adulthood. We now have a window of understanding how cellular memory is transferred in the womb from a mother to her unborn. The author will share his experiences of the unique programme entitled 'Holistic Approach to Motherhood' which he founded in 2002. It blends ancient wisdom with modern neurobiology. This indirectly approaches the non-coding DNA at cellular level which is responsible for many of the emotional, behavioral and personality traits we inherit. The said programme introduces various contemplative practices that can influence the genetic expression. This is a subject that needs to be popularized side by side with modern maternal health care if we are to contribute to a future generation with compassion devoid hatred and ill will.

Category M: Uro-gynaecology and pelvic floor

MO 001

Validation of the Sinhala translations of pelvic floor distress inventory questionnaire (PFDI-20) and pelvic floor impact questionnaire (PFIQ-7) on a group of Sri Lankan women with pelvic organ prolapse

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Introduction: Validated questionnaires have been introduced to assess how patient's quality of life is affected and to improve standard of care. Validated questionnaires are also used successfully to study the prevalence rate of pelvic organ prolapse (POP) in the community as well as success rates of interventions and improvement of quality of life after treating POP. Questionnaires should be translated and validated before using in a new population. The aim of this study was to translate and validate self-reported questionnaires, the Pelvic Floor Distress Inventory (PFDI-20) and the Pelvic Floor Impact Questionnaire (PFIQ-7) to Sinhala language.

Objectives: Sinhala translation and validation of PFDI-20 and PFIQ-7.

Methods: 270 patients were enrolled in this study. Two groups were selected with POP (cases) and without POP (controls) in a ratio of 1:2 respectively. Psychometric properties of the questionnaires were assessed using content validity, face validity, convergent validity, construct validity, internal consistency and reliability. POP-Q used as the test to quantify POP.

Results: An excellent content validity was demonstrated by content validity ratio for all items by experts. Face validity was confirmed by non-expert using 5 point Likert scale and Mann Whitney U test for all items. Internal consistency was found to be high for both questionnaires (Cronbach's alpha > 0.8) in all items. Construct validity was assessed by ROC curves and area under the curve is above 0.5 in all items in both questionnaires. Convergent validity was assessed by Pearson coefficient correlation which was above 0.8 for all subscales. Reliability was low in all subscales in paired t test.

Conclusions: The Sinhala versions of PFDI-20 and PFIQ-7 were valid, consistent, responsive but has low reliability in Sri Lankan setting.

Key words: Pelvic organ prolapse, Sinhala translation, validation, POP-Q.

E POSTER PRESENTATIONS

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EP 001

Audit on intra partum and postpartum bladder care following vaginal delivery in a tertiary care center, Sri Lanka

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Introduction: Postpartum urinary retention following vaginal deliveries is uncommon but carries significant maternal morbidity. The incidence varies in between 0.5-14.5%. If voiding dysfunction is not recognized early, bladder over distension can lead to denervation and permeant bladder damage. Good intra partum bladder care and prevention of postpartum urinary retention, are of greater clinical importance.

Aims: To assess the level of compliance to standard of intra partum and postpartum bladder care.

Study design, material and methods: This prospective audit conducted in obstetrics unit Sri Jayewardenepura General Hospital Sri Lanka in the period between 15th June 2018 to 14th September 2018. All the pregnant women admitted to labor suit during this study period was sampled (consecutive sampling). Data taken from the bed head ticket and entered in audit proforma. Data was analyzed in Excel.

Audit standard:

100% of pregnant women should

- be encouraged to empty bladder 2-4 hourly in the 1st stage of labour.
- have their urine measured every void.
- have urine analysis with dipstick every void and document in partogram.
- have empty bladder at the beginning of 2nd stage or before instrumental delivery.
- Have had a void within 6 hours of delivery.

Results: There were 322 vaginal deliveries within audit period. Out of them 38.2% of women encouraged to empty the bladder in regular interval. Measurement of urine volume has been done only in 19% women and urine analysis with dipstick was not performed in any of woman. Bladder empty at the beginning of 2nd stage was done in 77.9% of women and 100% of women had bladder emptying before instrumental delivery. 72% of women have had bladder emptying before leaving labour suit but volume was measured and documented only in 18% of cases. 3% of women leaved with indwelling catheter from labour suit to ward. First void recorded in 30.1% of women and measured only 16.4% cases following delivery.

Conclusion: Bladder emptying prior to instrumental deliveries adhere to audit standard. But there is huge deficiency in regular bladder emptying in 1st stage, measuring urine volume and documentation and documentation of first void following delivery. Emptying bladder at beginning of 2nd stage and before leaving the labour suit were reasonably adhere to audit standard. Urine analysis during intra partum was not practiced in the unit. During audit period there were three cases of postpartum urine retention (0.93%) was reported.

Our unit is actually performing better at emptying the bladder at the beginning of the second stage, prior to instrumental delivery and before leaving the labour suit. We have to pay good attention to frequent bladder emptying in first stage of labour and postnatal proper voiding measurement and documentation of first void. Unless improve our documentation we might not able to detect voiding dysfunction in time and prevent long term significant bladder dysfunction.

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Finding of this audit disseminated to the health care staff. Advice was given regarding importance of adhere to standard of intra partum and post partum bladder care to prevent post partum voiding dysfunctions. Re audit was planned in six months time.

EP 002

Audit on episiotomy rate among women undergoing vaginal delivery

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Background: Episiotomy has been routine in obstetrics care since 1920s. Randomized trials have failed to demonstrate any benefit. Observed rates are 9.7-100%. An acceptable rate is difficult to determine, but should not be much greater than 10% (WHO). Beneficial in preventing perineal damage, prolonged second stage of labour, shoulder dystocia, instrumental delivery and non-reassuring fetal heart rate. Complications include bleeding, pain and discomfort, wound scarring, dyspareunia, infections and dehiscence. Can be avoided by reducing maternal exhaustion by delaying pushing unless there is a pushing reflex, better fetal distress identification in the 2nd stage, and employing assistive techniques to perineal trauma. Assistive techniques include perineal massage, warm compression, and guarding (hands-on during crowning).

Objective: Determine the episiotomy rate in a ward with liberal use reduce it towards the WHO standard.

Methods: Pre-intervention audit was conducted during Sep-Oct, 2018. Intervention consisted of training Labour staff, nurses, midwives and intern house officers on restricting episiotomies; and daily close Supervision of labour staff by the consultant and registrar. Post-intervention audit was conducted during Dec, 2018-Jan, 2019. Data was collected from labour ward registers. Subgroup analyses was performed for primipara and multipara births.

Results: Monthly deliveries were 78 and 108 during pre-, and 94 and 83 during post-intervention. Monthly episiotomy rates were 77% and 71% during pre-, and 30% and 43% during post-intervention.

Monthly episiotomy rates in primipara births were 100% and 96% during pre-, and 54% and 66% during post-intervention. Monthly episiotomy rates in multipara births were 56% and 43% during pre-, and 3% and 24% during post-intervention. Perineal tear rates were 24% and 53%, respectively, during pre- and post-intervention periods. Post-intervention tears were mostly first and second degree, and there were fewer third.

Conclusion: There is a 50% reduction in episiotomy rate post-intervention compared to pre-intervention, and thus episiotomy rate can be significantly reduced by understanding the indications for a episiotomy and employing techniques for mitigating perineal trauma. Perineal tear rate is greater when episiotomies are not performed when indicated. Implementation of continued education and reinforcement could further improve outcomes. Further study is needed to assess the degree of persistence of rate reduction over longer term.

EP 003

An audit on pharmacological DVT prophylaxis for postpartum mothers at University Unit – Teaching Hospital Jaffna

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Introduction: Thromboembolism following deep vein thrombosis (DVT) during pregnancy and postpartum is a serious condition that increases the maternal morbidity and mortality. In Sri Lanka it accounted for 2.36% of maternal deaths in 2017. RCOG recommends formal risk assessment and prescription of pharmacological prophylaxis accordingly for all postpartum mothers. Formal VTE risk assessment through scoring system was not a practice in obstetric units of Teaching Hospital Jaffna as with other similar hospitals in Sri Lanka. This audit was performed to assess whether the mothers who are at higher risk of DVT and warrant postpartum prophylaxis were administered pharmacological prophylaxis

Objectives: To evaluate whether the ward practice without a risk assessment scoring tool meets the standards in postpartum pharmacological DVT prophylaxis.

Methodology: Prospective data was collected from 100 postpartum mothers' case notes in the postnatal ward. Standard risk assessment tool for DVT was designed based on RCOG guidelines. Standard for prescription of PPPP for those who warrant pharmacological prophylaxis is 100%.

Results: Out of the 100 postpartum mothers, 43 were entitled for postpartum pharmacological prophylaxis (PPPP). Among them only one was treated with pharmacological prophylaxis.

Of the 42 who warranted PPPP but did not receive were further analyzed with regard to their indication/s.

Conclusion: The uptake of mothers for PPPP is minimal without formal risk assessment tool (2.3%) when compared to the standards (100%). Considering the graveness of outcomes of postpartum DVT and PE, this audit recommends use of formal risk assessment tool to assess the maternal risk and offer PPPP.

EP 004

An audit on outcome of instrumental delivery in a tertiary care center

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Background: Instrument delivery rate has been reported as 10-15% in United Kingdom. It is much lesser in Asian countries including Sri Lanka. Although beneficial in many indications, it has led to litigation due to poor foetal and sometimes maternal outcome leading to reduction in its use. As there is universal concerns on increase caesarean section rate, instrumental delivery for proper indication and correct patient selection will be advantageous for both the mother and the foetus.

Objective: To assess the indication, maternal and perinatal outcome of instrumental usage in a tertiary care center.

Method: This is a retrospective study. Data was collected from June, 2017 to December, 2017 in Professorial Obstetric Unit, De Zoysa Hospital for Women, Colombo, Sri Lanka. Total number of instrumental deliveries were 63 during the study period.

Results: Total number of deliveries for the study period was 2324, out of which 1547 (66.6%) were normal vaginal delivery, 122 (5.2%) were instrumental delivery and 655 (28.2%) were caesarean section. Majority of the women were primi gravida (62%) and in term (95.2%). Indication for the instrument delivery was Lack of progression (49.2%), Foetal distress (41.3%) and maternal indications (9.5%). Instruments used were forceps in 42 (66.7%) and vacuum in 21 (33.3%) mothers. More than one instrument used in 6 (9.5 %) mothers. Neonatal team was present during delivery in most of the cases (95.2%).

Maternal Complications were vaginal/ cervical tears in 20 (31.7%) mothers, perineal tear in 4 (6.3%) mothers and only 1 mother had PPH (1.6%). Foetal complication was noted in 13 (20.6%) cases, out of which 7 (11.1%) soft tissue injuries, 7 (11.1%) cephalhaematoma, 1 (1.6%) subgalealhaematoma. A total of 12 (19%) babies had poor Apgar scores who recovered after resuscitation and one out of them died following forceps delivery. 3 (4.8%) babies needed SCBU (Special Care Baby Unit) care following delivery.

Both foetal and maternal complications were more with forceps than vacuum delivery (Foetal 11 Vs 2: Maternal 17 Vs 6).

Conclusion: Instrument delivery rate in our unit was low compared to data from other countries. Indications are similar to other countries. Foetal complications were more with forceps than vacuum. It is important to provide proper training for judicious use and to be extreme cautious to reduce foetal complications in the future.

EP 005

A case report of transfusion associated lung injury (TRALI) in high risk pregnancy complicated with portal hypertension following portal vein thrombosis and complicated with fundal varices, thrombocytopenia: Challenges in diagnosis and management with multidisciplinary approach in poor resource setting

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Background: Transfusion associated lung injury (TRALI) is considered one of the leading causes of transfusion related mortality. Global incidence is about 0.014 -0.08% per blood product transfused and mortality ranges 5% to 25%. It is challenging situation to made diagnosis because difficult to identify from other forms of adult respiratory distress syndrome and from transfusion associated circulatory overload (TACO). Diagnosis of the TRALI is made on clinical ground. Even though pathophysiology not fully understood, suggested two mechanisms including immune and non-immune mechanism. There is no specific treatment exist unless focus on preventive strategies and treatment mainly supportive with intensive care and respiratory support.

Case presentation: 24 years old mother in second pregnancy with 35 week and 6 days of period of gestation, her first pregnancy was first trimester miscarriage for that she was underwent evacuation of retain product of conception (ERPC), was complicated with uterine perforation and bowel injury ended up with mini- laparotomy and repair of bowel 2 years back. Her current pregnancy complicated with portal hypertension following portal vein thrombosis and fundal varices, splenomegaly and thrombocytopenia. She had multiple blood transfusion due to variceal bleeding in childhood. She was managed by multidisciplinary team from the beginning and following transfusion of platelets for pre operational optimization she developed acute onset dyspnea, tachycardia and hypoxemia.

Conclusions: Transfusion related lung injury (TRALI) is one of fatal complication of blood or blood components transfusion. As lack of definitive treatment, it requires development of preventive strategies. Diagnosis of the TRALI is challenging and need early involvement of experience clinicians. As far as this patient concerns, she had multiple problem including portal hypertension complicated with fundal varices, thrombocytopenia, high risk of thrombosis and on top of that ongoing pregnancy as well and more complex scenario, so multidisciplinary team approach is extremely important.

Keywords: Transfusion associated lung injury (TRALI), thrombocytopenia, pregnancy, portal hypertension, portal vein thrombosis

EP 006

A case report of antenatal care and pregnancy outcome of diagnosed patient with Takayasu arteritis complicated with aortic arch syndrome and B/L carotid artery stenosis and chronic hypertension: Challenges in management

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Introduction: In literature, Takayasu arteritis is also described as early onset granulomatous aortitis/arteritis or pulseless disease. It involves the medium and large arteries, predominantly aortic arch, subclavian and carotids (60%-90%). It is nonspecific chronic inflammatory vascular disease of unknown etiology. Disease predominantly affect females in reproductive age group. Inflammation that manifest as spectrum of clinical symptoms.

Case presentation: 41 yrs old mother, diagnosed Takayasu arteritis patient in her 2nd pregnancy with period of gestation 12 weeks presented to specialized antenatal care. Her pregnancy further complicates with chronic hypertension, aortic arch syndrome with compromised carotid blood flow. She has history cerebrovascular accident (CVA) when she was 20 years of age recovered with residual effect of left side hand weakness. her blood pressure controlled by methyl dopa 500mg twice daily and started low dose aspirin 150mg at night time POG 12 weeks onwards. From the beginning she has been managed by multidisciplinary team involving obstetrician, consultant physician, consultant vascular surgeon and rheumatologist and neonatologist 24 weeks onwards. Her pregnancy continued up to 36 weeks of gestation and delivered by lower segment caesarian section under epidural anesthesia. Postoperative intensive care offered and she recovered without significant unfavorable outcomes.

Conclusion: Even though incidence of TA more common among in female in childbearing age, the natural history of disease not worse by pregnancy. Involvement of multidisciplinary team for the management is crucial and proven to be given favorable maternal and fetal outcomes. Up to now suitable criteria to predict the final maternal and fetal outcomes have not been developed.

Keywords: Takayasu arteritis, pregnancy, aortic arch syndrome, venous grafting

EP 007

A case report of unrecognized isthmocoele: open surgical repair

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Introduction: Isthmocoele is a new term for dehiscence of caesarean section scar and herniation of endometrial cavity through the defect. Often asymptomatic but may present with abnormal uterine bleeding (post menstrual bleeding), pelvic pain, dyspareunia and secondary infertility. This is regarding 36-year-old patient presented with postmenstrual bleeding following one year of caesarean section.

Case: She is presented with a 3 months' history of postmenstrual brownish discharge associated with chronic lower abdominal pain. An anechoic area measuring 4cm into 3cm was detected during trans vaginal ultrasound assessment with thin myometrial layer (2mm) separating from bladder. During diagnostic laparoscopy protrusion of endometrial cavity through weaken uterine scar noted with dense bladder adhesion over the lesion. Procedure converted to laparotomy. Fibrotic tissue of the niche completely resected in 360-degree. Entire lesion surface was cauterized with roller diathermy. Endometrial cavity and overlying myometrium repaired. She was discharged with continuous combine oral contraceptive pills for 6 months. Planned to follow up with hysteroscopy in 6 months' time.

Discussion: Possible etiologies for isthmocoele are very low uterine incision over cervical isthmus, adhesion formation and inadequate suturing of uterine scar. Recognized mechanism of postmenstrual bleeding and abdominal pain is menstrual blood accumulate inside, impaired drainage and in situ production from new vessels. Clinical symptoms depend on size of defect. 35% of women with isthmocoele can present as secondary infertility. Adverse pregnancy outcomes such as caesarean scar ectopic pregnancy, placenta accreta and uterine rupture are possible in subsequent pregnancy. Usually isthmocoele can be visualized as a triangular anechoic space or niche in trans vaginal scan. Management options depend on patient's symptoms and fertility wishes. Asymptomatic patients can be managed conservatively. Patients with irregular bleeding and no fertility wishes can be treated with hormonal therapy or surgically. Surgical intervention is the option for symptomatic patient with fertility wishes. Surgical intervention can be vaginal approach by hysteroscopy or abdominal approach by laparoscopy or laparotomy. Hysteroscopy is 1st line option because of its minimal invasiveness and effectiveness. If patient having fertility wishes abdominal approach is best as it increases uterine wall thickness and reduces the potential risk of scar dehiscence or rupture in subsequent pregnancy.

Conclusion: High index of suspicion need to diagnosis. Careful selection of patient important for good surgical outcomes.

EP 008

Use of Wrigley's forceps to deliver a calcified uterus in ascending vaginal hysterectomy

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Introduction: Obstetric forceps to deliver uterine specimens have been used in vaginal hysterectomies and total laparoscopic hysterectomies, especially where the uterus is bulky or morcelation is contraindicated due to confirmed or suspected malignancy. This report describes a case, where the same technique was used to assist a vaginal hysterectomy for a calcified uterus, in which handling the specimen was a challenge due to calcification.

Case history: A 71 year old patient presented with recurrent postmenopausal bleeding and had unsuccessful attempts for outpatient and hysteroscopic endometrial sampling. Pelvic ultrasound scan showed a bulky uterus with a large calcified fibroid occupying the uterine body with no other significant pathology. On examination patient had a grade 1 uterine decent and a small cystocele. Given the history of recurrent postmenopausal bleeding and inability to sample the endometrium, a decision was made to proceed with a vaginal hysterectomy. A routine ascending vaginal hysterectomy was commenced and after dividing the uterosacral and uterine artery pedicles the cervix detached from the uterine body. The uterine body was completely calcified and could not be held with grasping forceps and was retracted into the abdominal cavity. A pair of Wrigley's forceps was applied antero-posteriorly on to the uterine body to pull down the uterus and divide the upper pedicles and to deliver the uterus. Procedure was overall uncomplicated and histology confirmed the diagnosis of calcified fibroid with atrophic endometrium.

Discussion: Conventional methods to extract the specimen during vaginal hysterectomy or total laparoscopic hysterectomy may fail due to many unexpected reasons. Thus it is important to have knowledge about alternative methods of delivering the specimens particularly to avoid unplanned laparotomies to facilitate specimen removal.

EP 009

Torsion of a non gravid uterus – case report

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Introduction: Torsion of the uterus is a rare clinical condition. It is more common in animals. There are more than 100 reported cases of uterine torsion during pregnancy, but few cases of non-gravid uterine torsion have been reported. Even though the precise pathophysiology for the non-gravid uterine torsion is not defined yet, it can be associated with fibroid uterus, adnexal masses and uterine abnormalities. Prolonged ischaemia due to occlusion of uterine arteries can lead to gangrenous changes of uterus and subsequent outcome may be fatal. Surgical exploration is considered both diagnostic as well as therapeutic, due to inconclusive or non-specific nature of basic imaging studies (eg. Ultrasound scan).

Case report: A 69 year old unmarried lady, without any past surgical history, presented with lower abdominal pain for one week duration. Pain had been intolerable over last few hours, associated with vomiting, and reduced urine output, but no altered bowel habits.

She was dehydrated, febrile and pale. Her pulse rate was 94 beats/min with blood pressure of 100/60mmHg. Abdomen was tender and an abdomino-pelvic mass of 20 week size of the gravid uterus was palpable. Initial investigations revealed elevated white cell count $21.87 \times 10^9/L$ with 90% of neutrophils, haemoglobin of 4.6g/dL, low serum sodium 127mmol/L, increased serum creatinine (230 micromol/L), increased blood urea (67mg/dL) and elevated liver enzymes (AST; 93u/L, ALT; 48u/L). C-Reactive protein value was 321mg/L. Arterial blood gas analysis was normal with PH 7.443. Ultrasound scan of abdomen and pelvis revealed a huge heterogeneous mass (with calcifications) in the abdomen extending upto the level of xiphisternum. Uterus and ovaries were not separately identified. Mild amount of free fluid was seen. A uterine neoplasm or twisted ovarian cyst with bleeding into were suspected based on above ultrasound features. Fluid resuscitation was started, and intravenous antibiotics with broad spectrum coverage were

started with the suspicion of sepsis. Blood transfusion was done to improve her haemoglobin. Emergency laparotomy was performed. There was haemoperitoneum (about 1000ml) and uterus was twisted 180 degrees at cervix. There was a fundal fibroid in the twisted uterus, and no evidence of malignancy was noted macroscopically. Twisted uterus showed no viability.

Discussion: Uterine torsion is defined as rotation of more than 45 degrees on its long axis. Clockwise rotation is commoner and the torsion mainly occurs at the level of utero-cervical junction.

The clinical presentations can vary from acute abdominal pain to non-specific symptoms which are related to urinary and gastrointestinal tract, shock. Cervix will not be seen in speculum examination, and it will be felt as pulled up and hitched under symphysis pubis. Rotation at cervix will be evident in CT scan as whorled appearance within it. MRI will reveal X-shaped configuration of upper vagina, instead of its H-shape in its normal condition. Urgent laparotomy should be carried. Considering the age of the patient, fertility wishes, viability of uterus and ovaries and the pathology leading to the torsion, surgical options would be total hysterectomy and salphingo-oophorectomy, detorsion and myomectomy, plication of round ligaments and uterosacral ligaments to prevent the recurrence of torsion.

EP 010

A rare case of chronic ectopic pregnancy mimicking ovarian tumor

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Background: Chronic ectopic pregnancy (CEP) is a potentially life-threatening condition and poses a diagnostic challenge, because of its subtle symptoms and wide range of clinical presentation. Often, CEP is associated with a negative pregnancy hormone assay, degenerative gestation surrounded by inflammatory mass of organised haematoma and perigestational adhesions. The true incidence of chronic ectopic is not known with certainty. There is no universal agreement about the definition of this entity in the literature.

History: A 32 year old patient (G2P0C0) presented with intermittent L/S lower abdominal pain for one month duration and mild pervaginal bleeding without clear period of amenorrhoea. She didn't have urinary symptoms/ fever. She had a history of R/S salphingectomy (R/S ectopic pregnancy).

Her urine hCG and serum β -hCG were negative. USS revealed L/S adnexial mass with cystic and amp; solid component ($3.8 \times 5.3 \times 4.4$). Ovarian neoplasm or tuboovarian abscess. Her blood investigations were normal. She underwent an emergency laparotomy, found to have organized mass in the L/S fallopian tube (2×3 cm) and organized blood clot outside the mass adhered to L/S broad ligament. Left salpingostomy was undertaken and the histology revealed the presence of chorionic villi, suggesting the diagnosis of chronic ectopic tubal pregnancy. The postoperative course was uneventful.

Conclusion: Chronic ectopic pregnancy can be quite fascinating with rare clinical presentation. The investigations often mislead us and create biased opinion. However awareness about such rare cases is helpful in future clinical practice.

EP 011

Pelvic tuberculosis presenting as an adnexial mass mimicking an ovarian cancer: A case report

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Introduction: Even though, long standing dyspeptic symptoms, presence of a pelvic mass, ascites and elevated serum level of CA-125 associated with advanced-stage ovarian cancer, presentation can be due to the pelvic

tuberculosis. Abdomino-pelvic tuberculosis may involve the peritoneal surfaces, gastrointestinal tract, lymph nodes or the viscera. The pelvic tuberculosis is a rare disease. Because of its asymptomatic nature and lack of reliable confirmatory investigations to diagnose the disease the exact incidence of pelvic tuberculosis is not accurately estimated. Here, we are present a case of abdomen-pelvic tuberculosis being referred to us as a case of adnexal mass and raised tumor marker.

Case report: A 57-year-old woman was referred to us with abdominal pain and distention for 2 weeks. She lost 15 kg last 2 months. Past medical history was not significant. She attained menarche at the age of 13 years and she had regular menstrual periods in reproductive age. She was mother of two children and both of them were delivered vaginally. She reached the menopause at the age of 52 years. On general examination, she was wasted. On abdominal examination, there was mild abdominal fullness and there was mild tenderness over the hypogastric area. On abdominal/pelvic ultrasound scan, there was a 40 mm × 45mm size simple cyst right adnexia. There was moderate amount of free fluids in the peritoneal cavity. After obtaining a detailed history, she has undergone diagnostic laparoscopy and obtains tissue samples prior to planned surgical treatment. Diffuse disease representing presumed carcinomatosis was encountered. Subsequent biopsies revealed noncaseating granulomas with no evidence of malignancy. Preliminary acid fast bacilli (AFB) stains were negative. Four (4) weeks later, preliminary results from AFB tissue culture were positive for *Mycobacterium tuberculosis* with final confirmation six (6) months after. The patient was subsequently diagnosed with disseminated pelvic tuberculosis (TB) and referred to the division of infectious diseases for combination therapy.

Conclusion: Pelvic tuberculosis should always be considered in the differential diagnosis of adnexal mass, ascites or elevated CA-125 particularly in patients with high-risk (from countries, where tuberculosis or AIDS are prevalent). When diagnosis of peritoneal tuberculosis is confirmed, surgery should be avoided and anti-tuberculosis treatment should be initiated. Thus, it is imperative that gynecologists are adept at recognizing pelvic tuberculosis to initiate appropriate treatment.

EP 012

A case report on uterine didelphys with ectopic pelvic kidney

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Introduction: Uterine didelphys is a rare form of Mullerian duct anomaly where there is complete duplication of the uterus, cervix and the vagina. There is no communication in between these two systems. This development anomaly occurred as a result of failure to fusion of the Mullerian ducts in fetal development. The incidence of uterine didelphys is approximately 1 in 3000 women, and Mullerian duct abnormalities frequently associated with the abnormalities of the renal system. A pelvic kidney is a rare entity compare to other renal anomalies in associated with uterine didelphys, which is occurs in 1 in 30,000 cases of uterine didelphys as seen in this case of a 28 year woman, who has uterine didelphys associated with the ectopic pelvic kidney.

Case report: The patient was a twenty eight-year-old nulliparous woman. She was referred to the gynaecology clinic with primary subfertility for three years. She had her menarche at age of twelve years and her menstrual periods were regular following that. Her medical history was unremarkable and she was not on regular medications. There was no significant dysmenorrhea. But she had mild, superficial dyspareunia earlier and which subsided in few months later. General examination and abdominal examination were unremarkable. Pelvic examination revealed double vagina and double cervix with a thick membrane in between them. The transvaginal sonography confirmed the diagnosis of uterine didelphys. On pelvic ultrasound scan there were normal two anteverted uteruses with well defined two endometriums. There was 100 mm × 82 mm size soft tissue mass in the pelvis, resembling pelvic kidney. Left kidney not found the normal anatomical position. Contrast enhanced computer tomography confirmed the diagnosis of ectopic pelvic kidney.

Conclusion: Uterine didelphys associated with obstetrics and gynaecology complications such as subfertility, spontaneous miscarriages, pre term labour, and malpresentations. Most ectopic pelvic kidneys are clinically asymptomatic and usually they are not more susceptible to have disease than normal kidneys, except urinary calculus formation and the development of hydronephrosis. Since, there is a strong association between Mullerian duct anomalies and renal anomalies, proper imaging should be undertaken to detect the coexisting anomalies when there are Mullerian or renal anomalies.

EP 013

A giant endometrioma in postmenopausal woman mimicking ovarian carcinoma: A case report

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Introduction: As it is oestrogen dependent, endometriosis usually occurs in premenopausal women. The prevalence of endometriosis among menopausal women low and, it is in cohort of patient with endometriosis is 2-4%. Here we report a case of giant endometrioma in postmenopausal woman, which mimic the ovarian carcinoma.

Case report: A 64 year old postmenopausal woman presented to gynaecology clinic with progressive abdominal distension and abdominal bloatness for three months duration. She attended menarche at the 13 years and she had regular periods in reproductive age. She not had experienced dysmenorrhea, dysparunia, or chronic pelvic pain ever before to suggest pelvic endometriosis. She reached the menopause at the age of 54 years. On abdominal examination there was mobile abdominopelvic mass with regular surfaces. Size of the mass was compatible with 30 weeks size gravid uterus. On transabdominal grey scale ultrasound scan there was a mass measuring 210 mm × 180mm × 170 mm in dimensions. There were solid areas with the cysts and prominent vasculature noted in the cyst wall and the solid components. There was no significant ascites. Cancer antigen 125 was 171 IU/L. A cystic mass with smooth surface arising from the right ovary found on laparotomy. Left tube and ovary attached to the posterior aspect of the uterus. Rectouterine pouch obliterated with bowel adhesions. Ovarian mass contained 2800ml brown coloured fluid. There were no lesions on the peritoneum and omentum to suggest secondaries. She has undergone routine total abdominal hysterectomy, bilateral salpingo-oophorectomy and infra colic omentectomy. Peritoneal washings sent for cytology. Ultimately, histological diagnosis of the ovarian mass was endometrioma.

Conclusion: Eventhough, postmenopausal endometriosis rare, it can occur without exogenous oestrogen. Furthermore, it has been recognized that it increases the risk of malignant potential. So, postmenopausal woman present with ovarian mass endometriosis also should take as differential diagnosis.

EP 014

Bladder endometriosis mimicking transitional cell carcinoma of the bladder: A case report

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Introduction: Macroscopic or microscopic haematuria, pelvic pain, and symptoms of cystitis are the common presentations of transitional cell carcinoma of the bladder. Urinary tract is a one of the sites of extragenital endometriosis. It is thought to occur in only 1% of cases of endometriosis. Here we present a case of bladder endometriosis in a patient, who had been investigated for symptom suggestive of transitional cell carcinoma.

Case Report: A 38 year old woman reported to gynaecology clinic with intermittent haematuria and lower abdominal pain for two months duration. In abdominal grayscale ultrasound scan, there was a mass lesion measuring 20 mm × 20 mm in the dome of the urinary bladder. Following ultrasound scan she had contrast enhanced computer tomography, and which revealed soft tissue mass arising from the posterior bladder wall. But, there were no features of extension to outside of the bladder and Impression was the bladder carcinoma. Patient has undergone diagnostic therapeutic transurethral resection of the bladder tumour under general anaesthesia. There was a polypoidal lesion measuring 20 mm × 20 mm in the dome of the bladder, and mass was resected completely. By the histological assessment the lesion was diagnosed as bladder wall endometriosis. By detailed questioning, she had primary subfertility for six years and she had two laparoscopic surgeries pelvic endometriosis, and last surgery was four years ago. Pelvic pain aggravates towards the menstruation and she observed the more prominent haematuria during the menstruation, and she ignored it as contaminated urine with menstrual blood. Flowing diagnosis of bladder endometriosis she was treated with progesterone hormonal therapy for six months. After follow up for one year she was asymptomatic, and there were no lesions on the ultrasonography.

Conclusion: Bladder endometriosis is a rare entity of extragenital endometriosis and it is a type of deeply infiltrating variety of endometriosis. Eventhough, the catamenial haematuria is the commonest presentation of the urinary tract endometriosis, bladder endometriosis should considered as a differential diagnosis when patient present with haematuria in child bearing age.

EP 015

Thermal endometrial ablation for abnormal uterine bleeding due to endometrial pathology (AUB-E) : An alternative to hysterectomy

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Introduction: Among women of reproductive age abnormal uterine bleeding due to endometrial pathology (AUB-E) occurs in 10-30%, and it has a significant adverse impact on their quality of life. In Sri Lanka, hysterectomy continues to be the commonest modality for the treatment of AUB-E not responding to medical therapy. The safety, efficacy and comparative cost assessment of thermal endometrial ablation (TEA) in the management of women with AUB-E were studied.

Method: Thirty women with AUB-E underwent TEA under general anaesthesia at the Academic Department of Obstetrics and Gynaecology of the Teaching Hospital Mahamodara, Galle (THMG) during the period of November 2012 to April 2015. Data was collected using an interviewer administrated questionnaire at discharge, 6, 12 and 24 months post procedure. Abdominal hysterectomy (AH) was offered for the patients with treatment failure. Average cost for an AH was determined base on study done by Ekanayake C et.al. in Lankan setting.

Result: Mean age and Body Mass Index of the women were 46 years (SD 4.8) and 25 Kg/m² (SD 2.3) respectively. Short term minor complications (abdominal cramps, excessive vaginal discharge and vomiting) were observed in three women (10%). There were no major complications reported. At the end of the two years 7 (23.3%) had amenorrhoea and 20 (66.6%) had reduced per vaginal bleeding. Three women underwent AH at 3,6 and 12 months (post procedure) respectively due to treatment failure. The Approximate cost of an AH was LKR 49,000. The cost of one TEA device was LKR 120,000. The cost of TEA installation system was approximately LKR 4,500,000.

Conclusion: TEA is a safe and effective alternative to AH for the treatment for AUB-E. However comparative cost for TEA was relatively expensive when compared to AH.

EP 016

Post-operative quality of care following major gynaecological surgery at university hospital KDU

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Introduction: Post- operative care is a determinant of the quality of health care and the most reliable source of assessment is the patient's perception of quality of care.

Objective: To evaluate the patient's perception of the quality of care.

Method: An audit was done for the patients who had undergone major gynecological surgery from July 2018 to May 2019. The data collection tool was a telephone questionnaire. The questionnaire assessed the quality of care under patient satisfaction of post-operative recovery, quality of hospital stay by nursing care; doctors follow up, wound care and pain relief. The patients were accessed using a Likert scale ranging from Very Good/ Good/Average/Bad.

Results: A total number of 45 patients were eligible of which 28 patients responded. The 17 remaining patients were not contactable. All patients agreed that the overall post-operative recovery was satisfactory with 57.1% stating that it was 'very good' and 42.9 % as 'good'. In terms of hospital stay 60.7 % agreed that the nursing care was excellent, 75% responded as the follow up by the doctors was excellent. Almost all of the patients were satisfied with wound care with a response of very good in 71.4%, good in 21.4% and average in 7.2%. Post-operative pain management was excellent in 60.7% and good in 39.3%. The discharge procedure was satisfactory for 71.4%. Most of the patients were satisfied with the quality of the diagnosis card (71.4%).

Conclusion and recommendations: The patient perception regarding the quality of post-operative care was satisfactory. 17 out of 45 were non responders due to unavailability of the contact information.

EP 017

A typical Mayer-Rokitansky-Küster-Hauser syndrome with severe scoliosis: A case report

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Introduction: The Mayer-Rokitansky-Küster-Hauser (MRKH) syndrome is a form of a Mullerian agenesis and is characterized by congenital absence of the uterus and the upper part of the vagina. Women with MRKH have normal development of secondary sexual characteristics and 46, XX karyotype. It affects 1 out of 5000 women. This syndrome is subdivided into two types, depending on the coexisting other abnormalities. It may be isolated MRKH (typical, type I) or Rokitansky sequence (MRKH type II, atypical or MURCS association). In Rokitansky sequence there are associated renal, skeletal, cardiac or auditory defects. Scoliosis is one of the skeletal abnormality that is seen among the patients with type II MRKH. In a vertebral column, if the curve is more than 40 degrees it qualifies for severe scoliosis. Here, we present a case of severe thoracic and lumbar scoliosis in a patient with MRKH.

Case Report: A 15- year- old school girl was referred to the gynaecology clinic for further assessment of primary amenorrhoea. She had scoliosis since birth. Her general examination was normal and had age appropriate secondary sexual characteristics. Her breast development was tanner stage 4 and pubic hair growth was tanner stage 3 at presentation. There were no cardinal features to suggest Turner syndrome. There was no history of cyclical abdominal pain to suggest out flow tract obstruction. Even though, she had normal external genitalia, vaginal opening appeared absent. On abdominal ultrasound scan, both ovaries were identified and uterus was not clearly visualized. Bilateral kidneys were normally positioned. The plain x-ray of the spine showed scoliotic deformity at thoracic and lumbar regions. Since, the vertebrae column curvature was more than 40 degrees, it was labelled as severe scoliosis. Her karyotype was 46, XX without visible chromosomal anomaly. She underwent diagnostic laparoscopy. The diagnosis of MRKH was confirmed by the presence of both ovaries and the absence of uterus. Patient and her parents were counseled regarding the condition. Cardiac, renal and other skeletal abnormalities were excluded.

Conclusion: Congenital uterine abnormalities are clinically important, especially in women who present with skeletal and ano-rectal malformations in neonatal period or with primary amenorrhoea at puberty. Therefore it is mandatory to perform a meticulous assessment of the other systems to detect unusual defects.

EP 018

Peritoneal closure: Must or not? – a case report

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Introduction: Proper tissue approximation during surgical closure at laparotomy is the key to incisional hernia prevention. Layer by layer closure or mass closure is done depending on the circumstances. Although the guidelines are specific on closure of anterior rectus sheath, subcutaneous tissue and skin, parietal peritoneal closure is not

specifically promoted and has no strong evidence. Increased operative time and more postoperative pain are drawbacks of parietal peritoneal closure and rapid cellular regeneration of peritoneum questions the need of the peritoneum closure. We came across an unusual scenario with bowel herniation and adhesion in a patient with no parietal peritoneal closure done in previous surgery.

Case report: This 52-year-old nulliparous lady had undergone laparoscopy followed by laparotomy for primary subfertility and myomectomy 11 years ago. During the time of myomectomy, parietal peritoneum closure has not been done. She had oligomenorrhea with heavy menstrual bleeding associated with secondary dysmenorrhea outlasting her menstruation. She also complained of deep dyspareunia with intermenstrual pain. She was clinically diagnosed with endometriosis and planned for total abdominal hysterectomy. She was overweight and there were no other risk factors for hernia. At the time of the abdominal hysterectomy, as the skin incision was made, part of the sigmoid colon was noted protruding through a small defect in rectus sheath, with no evidence of strangulation. Part of the herniated bowel was tightly adherent to the rectus sheath. When approaching laterally to the rectus muscle, it was noted that sigmoid colon was adherent to the previous surgical scar. Bowel was carefully dissected and total abdominal hysterectomy was carried out after difficult adhesiolysis. However, a small serosal tear of sigmoid colon occurred and was repaired. The recovery was uneventful and she was discharged on post-operative day 3.

Discussion: Although parietal peritoneum closure is not promoted in literature, closure of parietal peritoneum would have prevented sigmoid colon adhesion to scar and herniation in this patient. Bowel loop adhesions and herniation could lead to a iatrogenic bowel injury during a subsequent surgery. Peritoneum closure would have prevented bowel loops adhering to the whole length of the surgical scar. Although parietal peritoneum closure is not much supported in the literature, this case shows the importance of parietal peritoneum closure.

EP 019

An audit on long acting reversible contraceptive methods among pregnant mothers

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Introduction: Inter-pregnancy interval (IPI) of at least 24 months is recommended, and it is associated with reduced incidence of neonatal and perinatal mortality, low birth weight, small for gestational age baby and preterm delivery. In addition, allows child mother to experience the benefits of optimal breastfeeding for two years. It is also evident that IPI of more than six months reduces incidence of maternal mortality, preeclampsia, prelabour rupture of membranes, anaemia and the incidence of unsafe abortions. LARC provides effective and convenient long term contraception.

Objective: The purpose of this study is to evaluate knowledge on available methods, and to evaluate the attitude of women towards family planning methods after first pregnancy.

Method: Pregnant mothers who were attending to antenatal clinic at 36 weeks of gestation at District General Hospital Nuwara Eliya from May 2019 to July 2019 were included. Data collected by medical officers using interviewed administered questionnaire.

Results: 96 mothers were included in the study. 65.5% of mothers knew IPI of < 12 months increased risk of complications. More than 65% of them selected Jadelle as preferred contraceptive method. Among them 49% believed insertion and removal of Jadelle is very painful. 53% of mothers aware about common side effects of Jadelle.

Only 20% of mothers preferred IUD. 34.4% of mothers knew that IUCD can be inserted immediate partum up to 48 hrs. 46.9% of mothers knew that IUCD can be retained for 10 years.

21 mothers preferred DMPA as preferred family planning method. 67.6% of them aware about common side effects such as weight gain and amenorrhoea. 61.5% believed OCP can be taken during breast feeding. Majority of them were not aware of its implication in breast feeding (51%) and VTE risk (70.8%). 66.7% of mothers knew that male and female condoms can be safely used after childbirth. 56.3% knew about fertility awareness methods.

Discussion and intervention: According to this analysis, knowledge and attitude about postpartum contraceptive methods are not satisfactory. Most mothers as well as their partners needed proper counseling to provide suitable post-partum contraception. Separate lecture session was arranged regarding contraceptive method in antenatal classes at DGH-Nuwara Eliya.

Recommendation: Women as well as male partner needed proper counselling throughout the pregnancy. Providing printed information leaflets will be helpful to provide the knowledge in a busy clinic set up.

EP 020

Capacity building of public health midwives in managing vulvo-vaginal discharge

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Introduction and objectives:

- Vulvo-vaginal discharge (VVD) is a common symptom of gynaecological morbidities namely reproductive tract infections/ STIs.
- It is often challenging to distinguish abnormal from normal vaginal discharge, both from the patient's and the health care provider's perspective.
- Women delay seeking medical advice on VVD and public health midwives (PHMs) are in a unique position to help women to improve their vaginal health in Sri Lankan community setting.
- This study was aimed to develop and assess the effectiveness of an educational intervention on vulvo-vaginal discharge for PHMs serving women living in a socially marginalized community in Colombo district, Sri Lanka.

Methods:

Study Design: A non-randomized controlled trial using an intervention and a control group.

Study population: Public health midwives who work in Colombo Municipal Council area in Colombo district, Sri Lanka.

Sample Size: 37 PHMs in each intervention and control group.

Educational intervention: Two-day workshop conducted by resource persons (subject experts).

Reading folder: Outline for the educational programme, a flow chart on VVD, book on VVD, pamphlet on VVD, vulvo-vaginal discharge assessment form.

Conclusions and recommendations:

- Assessment of the effectiveness of the educational intervention had revealed successful and positive outcomes on improving knowledge, attitudes on vulvo-vaginal discharge and health education competency of the PHMs.
- Sustainability on improving PHMs' knowledge and attitudes on vulvo-vaginal discharge was observed.
- The educational intervention with the health education materials could be incorporated into regular in-service training programmes for the PHMs.

Results: Overall improvement of knowledge, attitudes and health education competency of PHMs

EP 021

Type 1 renal tubular acidosis complicating pregnancy: A case report

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Renal tubular acidosis (RTA) is a chronic renal condition. This is either inherited as an autosomal dominant condition (Types 1, 2, and 3) or acquired secondary to autoimmune disorders or toxins including medicines.

RTA is rarely encountered tubulopathy in pregnancy. Its effects on pregnancy and effects of pregnancy on RTA are not well known.

Type 1 or Distal RTA is the commonest form and results due to inability to acid secretion and potassium resorption in distal nephrons causing hyperchloremic metabolic acidosis and hypokalemia.

Chronic acidosis may affect fetal bone growth and development. Chronic maternal acidosis may also lead to fetal distress, which should respond to correction of the maternal acidosis. RTA can reduce maternal wellbeing during pregnancy and can trigger preterm births as well.

We report a 35-year-old primigravida (BMI19) with singleton pregnancy admitted repeatedly with recurrent episodes of excessive vomiting, lethargy and myalgia not responding to treatments and found to have Euthyroid state, Metabolic acidosis, hypokalemia and Urine PH of 6 due to Distal RTA.

Following MDT discussion, she was treated with Potassium Citrate and Potassium Chloride supplementation to correct acidosis and hypokalemia from 15 weeks of POG.

Till 24 week of POG fetal growth was unaffected and fetal anomalies excluded. At 24th week patient admitted with threatened Preterm labour which was managed with tocolysis and Progestogens. Subsequent Growth assessments revealed Fetal growth Restriction but fetal dopplers and Cardiotocography were unaffected. Delivery expedited with Elective Cesarean delivery of a Healthy 1900g weigh neonate.

Postpartum maternal care provided with MDT discussion and decided to continue potassium citrate and monitor at nephrologist for further care.

EP 022

Takayasu arteritis complicating pregnancy: A case report

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A 34 year old gravida two mother in her second pregnancy, who was diagnosed to have Takayasu arteritis, got registered in specialized antenatal clinic at the POA of 14 weeks. She was on azathioprine for her arteritis and she was having normal kidney functions as well as normal cardiac functions according to evaluation done in respective specialized clinics. She had undergone extensive investigation due to vasculitic rash by the dermatologist during her first pregnancy and had diagnosed to suffer from Takayasu arteritis. She had no neurological deficits. She did not have any features of arteritis at the presentation (remission with treatment). All the central and peripheral pulses were felt and equal. Blood pressure measurements in both upper limbs are 110/70mmHg at presentation. She developed mild hypertension during her pregnancy and was having small for gestation fetal growth. She was on follow up for routine antenatal care at Kandy TH as well as nephrology, cardiology (Multi-disciplinary team meetings monthly) clinics. She was kept under surveillance for fetal growth restriction and routine Doppler studies were done. Blood pressure control of the hypertension with methyldopa and pregnancy was not complicated with proteinuria. Pregnancy was continued up to 39 weeks under close monitoring and delivery was induced with prostaglandin without administration of steroids. Fetus was delivered under close monitoring of her blood pressure. Patient was discharged on azathioprine and temporary family planning method was arranged.

Conclusion: Takayasu's arteritis can be managed with multidisciplinary team approach in a tertiary care setting and the prognosis depends of involvement of the organs. Maternal complications like hypertensive diseases should be anticipated as well as fetal complications.

EP 023

Ultrasound diagnosis of fetal sacrococcygeal teratoma at 13 weeks of gestation: A case report

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Introduction: Sacrococcygeal teratoma is an extremely rare congenital tumor in the fetus, and it occurs in 1 in 40,000 neonates. Significant perinatal mortality and morbidity reported with sacrococcygeal teratoma due to, fetal hydrops, polyhydramnios, fetal anemia and preterm labour. Here we report a case of sacrococcygeal teratoma which was first detected at thirteen weeks of gestation.

Case report: A 34 year old woman with two living children was referred to our obstetric care. On initial presentation, she was in 13 weeks and 2 days in gestation. On obstetric gray scale ultrasound scan there was single live fetus with crown rump length of 78mm. There was a soft tissue mass measuring 32 mm × 26 mm with cystic and solid areas attached to the fetal sacral region, following initial counseling regarding the prognosis she had serial ultrasound scans at four weeks intervals to monitor the fetal growth and to early detection of hydrops, and to monitor the changes in mass size. She had detailed scan at 21 weeks of the gestation and other differential diagnosis of meningocele, meningomyelocele, haemangioma, and lipoma, excluded. No other major abnormality was detected. At thirty seventh week of gestation she had elective lower segment caesarean section. At birth, baby was active and healthy. There was a mass measuring 180 mm × 150 mm attached to the sacrococcygeal region. No other abnormalities were detected. Since, there was mild respiratory distress with intercostals recessions, and baby was given neonatal intensive care support. As discussed in the antenatal period, baby was referred to paediatric surgeon for further evaluation. Two days after delivery baby had sudden desaturation, and which was not responded to advanced resuscitation.

EP 024

Pregnancy in unicornuate uterus: detected during third pregnancy

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Introduction: Congenital uterine abnormalities result from an abnormal fusion and reabsorption of paramesonephric ducts during fetal development. These abnormalities are present 1-3% of the general population, and the prevalence much higher in subfertile woman and women with previous miscarriages. The presences of uterine anomalies increase the risk of obstetric and gynaecological complications, such as preterm labour, fetal malpresentations, fetal growth restriction and endometriosis. Unicornuate uterus is a rare Mullerian abnormality account for 2-4.8% of all mullerian anomalies. This is case of a patient who had here uneventful pregnancies despite having a unicornuate uterus without rudimentary horn, which carries an significant risk of subfertility and adverse pregnancy outcomes.

Case report: A 34-year-old mother of two children went into spontaneous onset of labour at 38 weeks of gestation. The present pregnancy was a result of spontaneous conception. Her previous two pregnancies ended up as term vaginal deliveries. There were no antepartum, intrapartum or postpartum complications. Birth weight weights of the babies were 3.22 Kg and 3.4Kg in first and second pregnancy respectively. There was no history of subfertility. No features suggestive of endometriosis. In present pregnancy she had normal progress of labour and she needed an emergency caesarean section due to non reassuring fetal cardiotocography. In intraoperatively unicornuate uterus with single tube noted. Both ovaries appeared normal and, there were no other pelvic pathologies were identified. Her postoperative period was uncomplicated and renal scan done postoperatively revealed no abnormality.

Conclusion: Patients who have a unicornuate uterus with rudimentary horn have more gynaecological problems and more adverse obstetric outcomes compare to the patients who have unicornuate uterus with no horn. However, the adverse obstetric outcomes are usually poor in unicornuate uterus compare to the general population. This case report governs that it is possible to have multiple successful pregnancies without adverse obstetric outcomes and gynaecological problems despite of having unicornuate uterus.

EP 025

A cesarean scar ectopic pregnancy: A case report

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Introduction: Caesarean scar ectopic pregnancy is one of the rarest forms of ectopic pregnancies. In here, there is an abnormal implantation of the embryo within myometrium in a previous caesarean scar. The incidence of caesarean scar ectopic varies from 0.15% to 0.3% in woman with a previous caesarean section. There is a substantial increase in this condition with the increasing rates of the caesarean sections in world wide. Since it is life threatening form of implantation, delay in diagnosis can leads to increased maternal mortality and morbidity. Early diagnosis leads to prompt management and improves the outcome. In this paper we describe a case of viable caesarean scar pregnancy that was managed with intramuscular methotrexate successfully.

Case report: A 32-year-old woman was referred to gynaecology casualty unit with vaginal bleeding for few hours. She was at eighth week of gestation in her second pregnancy. Her first caesarean section was due to placenta previa at 36 weeks of gestation. On bimanual examination, uterus was bulky, anteverted and there were no adnexial masses or tenderness. On investigation, routine blood and urine investigations were normal. On admission B-HCG level was 3118 IU/L. Trans vaginal ultrasound revealed empty uterine cavity with clearly defined endometrium, regular small gestational sac with fetal mass inside the sac with fetal cardiac activity. Cervical canal empty and adenexa were normal. On Doppler examination, hyperechoic rim of choriodecidual reaction with excessive vascularity suggestive of caesarean scar ectopic pregnancy. Myometrial scar was not separately visualized, a diagnosis of caesarean scar pregnancy or possibility of invasive pregnancy was considered. Patient was intramuscular methotrexate and patient was followed up with serum Beta human Chorionic Gonadotropin (β -hCG) level, till B-HCG came to non-pregnant level.

Conclusion: The incidence of caesarean scar ectopic pregnancies seems to rising. They have very fatal and poor outcomes, including massive haemorrhage, uterine rupture and maternal deaths compare to the other common sites of ectopic pregnancy. Several types of conservative treatment have been used for treatment of caesarean ectopics such as excision of trophoblastic tissues, local and/or systemic administration of methotrexate, and selective uterine artery embolization combined with curettage. Accurate early diagnosis and effective management are important in order to avoid complications and preserve fertility.

EP 026

An ovarian ectopic pregnancy, managed by ovarian wedge resection: A case report

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Introduction: Even though, ectopic pregnancy is not a rare occurrence in the era of artificial reproductive techniques, ovary is a very rare site of ectopic pregnancy. The ovarian ectopic constitutes 2-3% of all ectopic pregnancies. In spite of advanced investigative modalities, ovarian ectopic pregnancy is still a diagnostic dilemma, and rarely diagnosed in the preoperative period. There is an obvious need to differentiate tubal ectopic from ovarian pregnancy as it will influence the management. Thus, it is necessity of reporting our case.

Case report: A 31-year-old woman was admitted to the gynaecology casualty unit with a history of acute onset of abdominal pain for few hours. On enquiry, patient gave six weeks history of amenorrhea. On examination, patient was clinically pale and pulse rate was 102/min. Her blood pressure was 90/64 mmHg. On examination, there was tenderness over the hypogastric area of the abdomen. In pelvic examination there was bilateral adnexal tenderness. In addition to that, she had cervical motion tenderness as well. Urine pregnancy test was positive. On clinical assessment, a diagnosis of ruptured ectopic pregnancy was made. Her initial haemoglobin was 7.2 g/dl. Gray scale transvaginal ultrasound of the pelvis showed evidence of free fluid in the peritoneal cavity with no evidence of intrauterine pregnancy. Patient was taken for emergency laparotomy. Intraoperatively, approximately 1400ml of haemoperitoneum was drained. She had normal uterus and apparently normal tubes. There was a bleeding edge in the right ovary. The left ovary appeared normal. In view of normal tubes and suspicious lesion on the right ovary, the decision was made for ovarian conservation with ovarian wedge resection. Post operatively, she received 2 units of blood. Histopathology report confirmed the diagnosis of ovarian ectopic.

Conclusion: Ovarian ectopic pregnancy is rare and can be associated with high morbidity and mortality rates in reproductive aged women. An intact ipsilateral fallopian tube, a gestation occupying the normal position of the ovary, the gestation is connected to the uterus by the utero-ovarian ligament and the presence of histopathologically confirmed ovarian tissue in the wall of the gestational sac are features described to differentiate ovarian ectopic from others (The Spiegelberg's criteria). Oophorectomy with ectopic pregnancy and ovarian wedge resection are the usual methods of management.

EP 027

Pregnancy with an amniocele, conservatively managed until fetal maturity: A case report

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Introduction: An amniocele is a spontaneous herniation of the amnion through a defect of the uterus. Uterine rupture is a rare but potentially serious obstetric complication associated with both fetal and maternal morbidity and mortality. Here, we present a case of silent uterine rupture with a large amniocele, diagnosed at the 20th week of gestation, and managed conservatively until 32 weeks of the gestation.

Case report: A 27-year-old woman referred for fetal assessment at 20th week of gestation. She had a lower segment caesarean section at term in her first pregnancy. On obstetric ultrasound scan there was single live fetus, without any obvious fetal anomalies. The scan suggested a large cystic mass measuring 8 cm × 8 cm in the cervical region. Since the ultrasonography was inconclusive, magnetic resonance imaging was performed for further evaluation of the suspicious mass. On magnetic resonance imaging it was confirmed that amniotic sac protrusion through the uterine defect in the anterior lower uterine area. Patient was counseled about the condition and she was given an inpatient care until 32 weeks of the gestation. She has undergone elective laparotomy at 32 weeks of the gestation following corticosteroids for fetal lung maturity. On opening abdomen at laparotomy, there was no haemoperitoneum, and there was 7-8 cm size uterine dehiscence on the centre of previous scar. Amniotic sac had completely herniated through the dehiscence forming an amniocele that was lying in peritoneal cavity. The baby was lying in uterus in longitudinally and baby was in cephalic presentation. Baby was delivered and handed over to the neonatology team. Weight of the baby was 1.6 Kg. Uterus was repaired following delivery. The woman and baby were discharged two weeks following the delivery in satisfactory condition.

Conclusion: An amniocele is a rare occurrence, as a result of chronic silent uterine rupture. There should be high index of suspicion when there are suspicious ultrasonography findings. Ultrasonography has an important role in early diagnosis of silent uterine ruptures. Since, uterine rupture is a life-threatening event to the mother and fetus, early diagnosis is very important to improve prognosis.

EP 028

Pregnancy outcome of low implantation of intrauterine pregnancy

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Objective: To assess pregnancy outcome in mid cavity and low cavity implantation of the gestation sac

Method: During the time period from 2015 May-June 2019, 99 cases of high risk pregnancies were detected. The site of implantation of the gestation sac is identified in the first transvaginal ultrasound done at 5-7 weeks of period of gestation. These mothers were followed up with high risk fetomaternal surveillance, serial ultrasound scans and Doppler studies until the final outcome.

Conclusion: Transvaginal ultrasonography in early first trimester identifies the gestation sac location and allows for high risk feto-maternal surveillance and serial ultrasound scans to identify and manage complications.

EP 029

A rare case of congenital heart disease: A case report

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Introduction: Cardiovascular malformations are the most common type of birth defect and results in significant mortality worldwide. The etiology for the majority of these anomalies remains unknown. Despite considerable advances in care, those remain a major contributor to neonatal deaths and is associated with substantial morbidities. Genetic abnormalities are a significant cause, however, identifying precise defects has proven challenging due to genetic heterogeneity, incomplete penetrance, polygenes, and other non-genetic contributions.

Case report: 33 years old mother, a known patient with congenital ventricular septal defect, has undergone a surgery for the correction at the age of 7 years, delivered her first baby by lower segment caesarian section due to failed induction at term.

Pre-conceptionally echo cardiogram was done and found to be normal as her ejection fraction is more than 60%. Planned pregnancy was considered to be safe. Her antenatal period was uneventful. Baby was born with average birth weight and Apgar score was normal. As vital parameters were normal, child was sent to postnatal ward.

On the same day child was irritable and observed to be cyanosed. 2D echo revealed an obstructed intra cardiac type Total Anomalous Pulmonary Venous Drainage (TAPVD), Large Patent Ductus Arteriosus (PDA), Restrictive Muscular type Ventricular Septal Defect (VSD)/ coronary to Right Atrium Fistula, Thin rim of pericardial effusion and severe pulmonary hypertension was detected.

Correction of TAPVD was done. In spite of the surgery being done the condition of the child deteriorated and was admitted to the pediatric intensive care unit. Amidst of all supportive measures child died on the 8th days following the birth.

Discussion: Ventricular septal defects (VSD) are usually considered non-life-threatening, majority closing spontaneously and if not, can be surgically treated in time to save the patient's life. The corrective surgery of the mother's ventricular septal defect might have been done at a time prior to development of pulmonary hypertension. But in case of neonate, with marked pulmonary hypertension leading to pleural effusion, prognosis was worse.

EP 030

Essential thrombocytosis and pregnancy: A case report

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Background: Essential thrombocytosis (ET) is a very rare condition, occurring in 0.6-2.5/100,000 per year with predominance in female population. This is a myeloproliferative disorder which produces high levels of platelets by abnormal megakaryocytes. These platelets result in increased risk of thrombosis as well as bleeding due to increased sequestration of von Willebrand factor (VWF) by the increased mass of platelets leaving insufficient VWF for platelet adhesion. Patient may present with headache, blurring of vision and other thrombotic event or with bleeding manifestations. This condition may complicate pregnancy by increasing the risk of first trimester miscarriages, fetal growth restriction, placental abruption, preterm labour and stillbirths due to inadequate placental circulation secondary to thrombosis of the placental bed.

Case report: A 26 years old primigravida presented at 6 weeks of gestation with ET complicating pregnancy. She was diagnosed with ET one year ago, when she presented with headache and found to have platelet count of 1311,000/mm³. She did not have JAK2V617F mutation. Her diagnosis was confirmed by bone-marrow biopsy, which showed myeloproliferative cell line. Other myeloproliferative disorders like polycythemia rubra vera were excluded by normal haematocrit (34.2), ferritin (44IU) and chronic myeloid leukemia by negative Philadelphia (Bcr-abl) chromosome. Reactive thrombocythemia was excluded by normal CRP (<6mg/L).

Her platelet count started to rise up to 2044/mm³ following diagnosis. She was started on clopidogrel 75mg every other day as she was allergic to aspirin and pegylated interferon-alpha weekly (35 doses until pregnancy) and allopurinol 300µg daily (for one month) until her platelet count became normal.

She had an unplanned pregnancy with the platelet count of 364,000/mm³, while on clopidogrel and interferon. Soon after diagnosis of pregnancy her clopidogrel, Interferon were withheld and she was started on low-molecular weight heparin (LMWH) 20mg daily. Multidisciplinary team involving an obstetrician, obstetric physician and haematologist managed her pregnancy. Her platelet count was regularly monitored and was normal throughout pregnancy.

Her labour was induced medically at 37 weeks due to features of fetal growth restriction. She delivered a baby with a birth weight of 2105g vaginally. Her pregnancy was otherwise uncomplicated without any major thrombotic event or bleeding manifestation.

Discussion: Pregnancy with ET carries a high risk of spontaneous abortions and pregnancy complications. Addition of low-dose aspirin may be beneficial to prevent placenta related complications. However, this patient was not started on aspirin, as she was allergic. Thromboprophylaxis with LMWH and TED stocking should be considered to reduce the risk of thrombotic events during antenatal period and immediate post-partum period. Although cytoreductive therapies (Interferon α, Hydroxycarbamide) carries a high risk of foeto-toxicity it is essential if platelet control is essential (more than 1500,000/mm³).

Conclusion: ET management in pregnancy can be challenging due to lack of good quality evidence. Therefore it is important to manage on individual basis by multidisciplinary team in a tertiary care centre.

EP 031

A rare case of amniotic rupture sequence / amniotic band syndrome

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Introduction: Amniotic rupture sequence (ARS), previously called amniotic band syndrome (ABD), is a rare presentation due to entanglement of fetus or fetal parts by fibrous amniotic bands. It may manifest as minor forms

(involvement of digits) to more severe complexed forms with still births. Fibrous rings may cause infarction, atrophy, malformation, disformation and amputation of the affected organ. This may be detected during routine anomaly scan. However fetal karyotyping should be arranged to exclude possible congenital anomalies in complexed cases.

Case report: A 29-year-old para three mother was suspected to have amniotic rupture sequence during anomaly scan done at 20 weeks of gestation. She was followed up with regular growth scans and diagnosed to have asymmetrical growth retardation with severe oligohydramnios. She was counselled regarding possible poor perinatal outcome. There was no history of consanguinity and her past medical history and antenatal period was unremarkable. Her previous 2 deliveries were uncomplicated with healthy off springs. At period of amenorrhoea of 33 weeks and 5 days, she presented with reduced fetal movement and diagnosed to have a still birth. Induction of labour was arranged which ended up in emergency hysterotomy due to delayed progression. She delivered a still born baby with tight fibrous amniotic band around the abdomen resulted in deformed pelvis and lower limbs. Deformed right lower limb had a second fibrous band. Fetal face, head, neck upper limbs and chest appeared normal. Clinical diagnosis was made since the cause was oblivious.

Conclusion: According to published data, aetiology of ARS is unknown and associated risk factors also poorly understood. Hypothetical theory explains the rupture of amniotic membranes causing formation of fibrous bands leading to fetal malformations. Rupture of membranes is believed to be occurred during first trimester. However intrapartum diagnosis is possible mainly at routine anomaly scans. Malformed fetal organs, missing of fetal parts (in case of amputation), fibrous constriction bands, intrauterine growth retardation and oligohydramnios are definable ultrasound features involved with ARS. New developments involving fetoscopy with laser dissection of fibrous bands will be useful in management during intrapartum period. Fetuses which are incompatible with life can be offered with termination of pregnancy.

EP 032

A rare case of Sirenomelia (mermaid syndrome)

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Introduction: Sirenomelia is an extremely rare congenital anomaly with an incidence of 1 in 100,000 births. Around 300 cases have been reported so far throughout the world. Affected fetus has fused lower limbs with mermaid appearance which gives the name “Mermaid Syndrome”. This appearance is due to developmental defect in the caudal region with varying degree of lower limb fusions. It is also associated with gastrointestinal and urogenital anomalies with single umbilical artery. Affected neonates are not compatible with life and die short after the delivery. The cause of the syndrome is unknown. Diabetes mother had 200 times higher risk of developing Sirenomelia. Other associated risk factors include teenage pregnancy (less than 20 years), elderly pregnancy (more than 40 years) and exposure to teratogenic substances.

Case report: 37-year-old para three mother admitted at 33 weeks and 5 days with a history of preterm prelabour rupture of membranes and absent fetal movements. Clinical examination revealed footling breech presentation. This pregnancy was complicated with gestational diabetes and her glycaemic control was satisfactory. An omphalocele, was detected during second trimester scan done at 20 weeks. There was no significant past medical history. There was no history of consanguinity. Emergency cesarean section was performed and a dysmorphic baby (weighing 2.4 kilograms) was delivered. Her face was dysmorphic with prominent occiput but neck, chest and upper limbs were normal. Auscultation findings were normal. Abdominal wall had an omphalocele. There were mermaid lower limbs which were fused together from groin to heels. Distal parts of feet were separated. Rudimentary external male genitalia with urethral meatus were seen anteriorly. Cut end of umbilical cord showed a single umbilical artery. Baby expired on day 1 postpartum. Parents did not consent for autopsy.

Conclusion: Sirenomelia is a very rare congenital anomaly with no proven aetiology. Routine anomaly scan has a key role in diagnosis during antepartum period. Common ultrasound features includes bilateral renal agenesis, absence of bladder, severe oligohydramnios, gastrointestinal anomalies (e.g. omphalocele) and single umbilical artery. Once diagnosis is made, mother has to be counselled properly regarding poor perinatal outcome. Termination of pregnancy at early stage is a possible option.

EP 033

Case reports on atypical presentation of leiomyosarcoma of the uterus

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Case: A 52-year-old patient presented with heavy menstrual bleeding for 6 months duration with haemoglobin value of 6g /dL. Patient was having a submucosal fibroid of 4cm × 4cm size (stage 1-0) and no other cause for the heavy menstrual bleeding was found. She underwent blood transfusion and was put under therapeutic dose hematinics until surgery. She presented with sudden onset of heavy vaginal bleeding and abdominal pain, which was caused by the prolapse of the fibroid through the cervical os.

Patient underwent total abdominal hysterectomy and was found to have partially inverted uterus with a prolapsed pedunculated fibroid with partial necrosis. In histological examination of the fibroid it was revealed that the fibroid is a leiomyosarcoma and she had to be put under surveillance with routine CT abdomen annually for recurrence of the disease elsewhere.

Conclusion: Atypical presentation of abnormal uterine bleeding needs to be investigated thoroughly and uncommon sarcomatous changes of fibroids needs to be kept in consideration, while managing patients, until histological confirmation arrives.

EP 034

Endometrial carcinoma in a young woman who has been on treatment for infertility

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Introduction: Endometrial carcinoma is the third most common female genital tract malignancy in Sri Lanka. There are two types of endometrial carcinoma, out of which type 1 tumours are more common and oestrogen dependent. There is an up-ward trend in incidence of type 1 endometrial carcinoma worldwide probably due to increased prevalence of obesity, shifts in reproductive trends as a result of economic development. Risk factors for type 1 endometrial carcinoma include unopposed oestrogen stimulation of endometrium, obesity, diabetes mellitus, early menarche and late meno-pause, nulliparity, polycystic ovarian syndrome and tamoxifen therapy. Endometrial carcinoma is rare before the age of 40, incidence is less than 2 per 100,000 women. The incidence increases between ages of 40 and 55, thereafter reaches a plateau.

Case report: Mrs. H, 31 year old nulliparous women initially presented for further investigation for infertility. She was overweight (BMI 28.2 kg/m²) and infertile for three years. She had irregular infrequent menstrual cycles but without any hyperandrogenic features. Ultrasound scan was not suggestive of polycystic ovaries. She had been investigated and treated for primary subfertility during last two years and treated with clomiphene citrate for three cycles, but failed to have mature follicles. Then she was treated with letrozole for another 4 cycles and had ovulation induction and Intra uterine insemination in one cycle. Following that she had also undergone indigenous medical treatment for subfertility for four months during which she developed heavy prolonged menstrual bleeding. She was investigated with ultra-sound scan which indicated thickened endometrium of 15.7 mm with the appearance of an endometrial polyp. Polypectomy and dilatation curettage was performed and histology revealed complex atypical hyperplasia. Management options were discussed with her and high dose of progesterone given for 3 months due to her fertility wishes. After three months hysteroscopy guided biopsy was repeated. Hysteroscopy showed irregular endometrial surface with polypoidal endometrial lesion at the fundus. Histology report again indicated complex atypical hyperplasia with secretory effects. She was referred to gynaecological oncology unit where she underwent MRI which suggested endometrial carcinoma within the thickened endometrium. After discussion with patient and the partner she was offered total abdominal hysterectomy and bilateral salpingo-oophorectomy with pelvic lymph node clearance. Histology indicated well differentiated endometrioid type endometrial adenocarcinoma with squamous differentiation involving fundus and body. The maximal myometrial invasion is 5% of thickness with lymph nodes and omentum free of tumour, suggesting stage 1A tumour.

Discussion: Even though incidence of endometrial cancer before the age of 40 year is very low management is challenging due need of fertility preservation. Infertility in these women becomes a risk factor for developing endometrial carcinoma as it is often associated with obesity, infrequent menstrual cycles, polycystic ovarian syndrome and nulliparity. Ovulation induction with clomiphene results in secondary increase in oestrogen secretion which may stimulate unopposed endometrial proliferation theoretically. But evidence is inconclusive on ovulation induction as an independent risk factor for development of endometrial carcinoma. Up to stage 1A endometrial carcinoma in women with fertility wishes can be managed conservatively with progesterone. But the chance of getting pregnant in these patients is low and it carries the risk of spread of the disease. If repeat biopsy shows persistent atypical hyperplasia or endometrial cancer, definitive treatment with total abdominal hysterectomy with bilateral salpingoophorectomy needed.

EP 035

Management of a patient with an ovarian malignancy in first trimester of pregnancy: A case report

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Case summary: A 35 year old lady married for one and half years visited the obstetrician for booking visit of her first planned pregnancy in 8th week of gestation. A booking ultrasound scan was done and it revealed an intrauterine pregnancy with a single live fetus. CRL was compatible with 7+1 weeks. The scan also revealed a complex left ovarian neoplasm measuring 13 × 9cm having cystic and solid areas, although she had no symptoms. She was referred to gynecology oncology unit of THM for further management of ovarian neoplasm. CA 125 value was elevated to 1226 (<35). Alpha fetoprotein was normal and 2.7IU/ml (<5.8IU/ml). Surgical management was carried out with midline laparotomy. Around 100ml ascitis fluid was present and sample was sent for cytology. Complex L/S ovarian cyst was noted with cystic and solid areas. Capsule was breached with papillary projections protruding through cyst wall. Tumour deposits were noted over left posterolateral wall of the uterus. Uterus was soft and spongy and 8 weeks in size. Corpus luteum was present in right ovary. No omental, mesenteric, liver or diaphragmatic deposits were noted. No bladder, bowel or ureteric invasion was seen. Left oophorectomy and infracolic omentectomy was done adopting a conservative surgical management approach in 9th week of gestation. Specimen was sent for urgent histology with a view to initiate chemotherapy once the histologic diagnosis is available.

Conclusion: Management of an obstetric patient with ovarian cancer should be multidisciplinary. Medical-Surgical management is safe and should not be deferred in view of pregnancy. Almost all patients are offered surgical management for initial treatment. Conservative surgical strategies, with or without adjuvant antepartum chemotherapy, which results in safe oncologic and fetal outcomes should be practiced. Generally chemotherapy is compatible with the second or third trimester, when the risk of congenital malformation for fetuses is no greater than in general population. The literature shows numerous reports of BEP regimen and adjuvant Cisplatin and Cyclophosphamide used in pregnancy with no untoward effects. Follow up of pregnant patient with cancer must be close with special attention to fetal well being. Unlike in the past, today, most women with ovarian cancer complicating pregnancy hope to maintain the pregnancy and preserve fertility, which is endorsed by late maternity and a low birth rate.

Discussion: The overall incidence of ovarian tumours in pregnancy is 2.4-5.7%. Of these tumours approximately 5% are malignant. Most patients with ovarian cancer have no specific symptoms. This asymptomatic nature of ovarian cancer makes early diagnosis difficult. Routine booking ultrasound scan performed for evaluating fetal status in pregnant women can also be used for early detection of an incidental ovarian tumour. This has led to early diagnosis and management of asymptomatic ovarian tumours complicating pregnancy. It is difficult to differentiate ovarian malignancies from functional cysts or benign ovarian tumours. If an ovarian mass larger than 6 cm has a complex structure, ascitis or persists beyond 16 gestational weeks, surgical management is crucial for obtaining a histologic diagnosis and ruling out malignancy.

EP 036

A septated uterus: Delaying diagnosis of endometrial adenocarcinoma: A case report

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Introduction: Uterine abnormalities are rare; and they occur in four to seven percent of general population. Most of these abnormalities do not cause symptoms. Because of its asymptomatic nature the diagnosis of anatomical malformations may go undetected. Even though the frequency of endometrial carcinoma is same in anatomically normal and abnormal uteri, there may be delay in diagnosis of the same, in a patient with anatomically abnormal uterus. Here is reported a case of endometroid adenocarcinoma of the uterus in a patient who had complete septum in the uterine cavity.

Case report: A 61 year old nulliparous woman presented to gynaecology clinic with two episodes of vaginal bleeding. She reached menopause at 55 years. She had essential hypertension and type 2 diabetes mellitus for five years and for four years respectively. She had satisfactory hypertensive and diabetic control at presentation where her body mass index was 29.8 Kg/m². Abdominal examination was unremarkable and there was no significant inguinal lymphadenopathy. On pelvic examination, there was no explanation for the vaginal bleeding. The transvaginal ultrasound scan revealed a normal sized uterus with normal adnexa. The endometrium was uniformly thickened (7mm). She underwent endometrial evaluation with outpatient endometrial aspiration. However, the histological assessment was negative for carcinoma and for cellular atypia. Since, her symptoms were persistent, she underwent dilatation and curettage under general anaesthesia but sample was inadequate for histological assessment. Patient was followed up with magnetic resonance imaging (MRI) and on MRI, the diagnosis of the complete septated uterus was made. There was irregular polypoidal growth in the left cavity of the uterus. In addition to that there were no other abnormalities detected on MRI scan. Since it was apparently early stage endometrial carcinoma, total abdominal hysterectomy and bilateral salpingo-oophorectomy was performed. On macroscopic examination of the uterus there was a complete septum from fundus to the cervix, and small polypoidal mass observed on anterior side of the left cavity. The ultimate histological diagnosis was well differentiated endometroid type adenocarcinoma without deep myometrial involvement.

Conclusion: Endometrial carcinoma is one of the commonest gynaecological malignancies. Since, the presentation is at early stages of the disease, it has a good prognosis in comparison to other gynaecological malignancies. A rare possibility of anatomical abnormalities should be kept in mind when investigating for symptoms suggestive of gynaecological malignancies.

EP 037

Hirsutism caused by an androgen producing sertoli and leydig cell ovarian tumor: A case report

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Introduction: Hirsutism is a male pattern hair growth in a female as a result of increased androgen production or increase sensitivity of hair follicles to androgen. Hirsutism itself is not a diagnosis but rather a manifestation of a large spectrum of diseases. The differential diagnosis should include ovarian and adrenal neoplasms.

Case description: A 38-year-old woman presented with secondary amenorrhoea for eight months duration. She noticed excessive facial hair growth over six months. But there was no deepening of voice or male pattern hair loss to suggest virilization. She attained menarche at the age of 13 years, and had 28 to 30 days regular menstrual cycles. She

had two successful term pregnancies. On examination, her Body mass index was 28.4 kg/m² and she was normotensive. She had excessive terminal hair over upper lip, chin, abdomen, and thigh with a modified Ferriman-Gallwey score of 24/36. On examination of external genitalia there was no cliteromegaly. On pelvic examination, there was a mobile, non-tender, right sided pelvic mass. The ultrasound scan confirmed the presence of a complex right adnexal hyperechoic mass measuring 50mm × 53mm × 48mm with internal blood flow. Her total testosterone level was (720 ng/dl) increased. She underwent right side salpingo-oophorectomy following counseling. The microscopy revealed an ovarian Sertoli - Leydig cell tumor without necrosis, haemorrhage or cytological atypia. Her hirsutism improved over six months and total testosterone normalized to 40 ng/dl.

Conclusion: Ovarian Sertoli-Leydig cell tumor is a rare ovarian tumor that belongs to the group of sex cord stromal tumors. Ovarian Sertoli-Leydig cell tumors constitute less than 0.5% of all ovarian neoplasms. When a woman presents with new onset hirsutism/virilization with elevated androgens, neoplastic entities such as androgen producing ovarian tumors should be excluded.

EP 038

Postpartum superior sagittal sinus thrombosis: A case report

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Introduction: Cerebral venous sinus thrombosis (CVST), although relatively rare, is an emergent condition that can present itself with variety of symptoms ranging from isolated headache to profound coma. Major predisposing factors are hypercoagulable state including acquired prothrombotic conditions such as pregnancy and puerperium. Symptoms and signs are transpired because of infarction and obstruction of cerebral venous sinuses, and decreased drainage of cerebrospinal fluid, leading to intracranial hypertension. The diagnosis needs a high index of suspicion and the use of neuroimaging techniques.

Case report: A 39-year-old woman, mother of one child admitted with recurrent seizure attacks (3 episodes) 18 days after her child delivery by EM/LSCS. The seizure initially started as focal and followed by generalized tonic clonic type and settled spontaneously after 5-10 minutes. She was a known patient of gestational diabetes mellitus. But she had no history of hypertensive disorders or hematological disorders and she was not a known patient of epilepsy. After the admission her temperature, pulse rate, blood pressure, random blood sugar and urine albumin were 98.6°F, 88 beats/min, 144/80, 148mg/dl and +1 respectively. Neurological deficits were not identified. Her conscious level was E4V5M6 on Glasgow coma scale. Her initial investigations were normal including serum electrolytes (Na⁺, K⁺, Ca²⁺ & Mg²⁺), liver and renal profile, clotting profile, platelet counts as well as septic screening except low hemoglobin of 8.7. Initially non-contrast computer tomography revealed Distal superior sagittal sinus thrombosis and it was followed by Magnetic resonance angiography which concluded that Right anterior parietal venous hemorrhagic infarction secondary to superior sagittal sinus and left transverse sinus upto sigmoid sinus thrombosis. Urgent Multi-Disciplinary Meeting was arranged with the participation of Obstetrician, Neurologist, Intensive Care Unit Anesthetist and Hematologist. Patient was medically managed with two weeks of enoxheparin and three antiepileptics of Levaterazetam, Lamotrigine and Clobazam in tailing off plan gradually. After two weeks of ICU as well as ward care patient was discharged with Levaterazetam and enoxheparin. The follow up plan was to repeat MRA Brain and Electroencephalography in order to assess the resolution of infarction by neurology team and by hematology team to decide on switching to warfarin. The follow up MRA Brain suggested that resolving right anterior parietal lobe venous infarction and parietal recanalization of superior sagittal sinus with multiple collateral formations. And patient was switched to warfarin from enoxheparin.

Conclusion: Superior sagittal sinus thrombosis is an uncommon complication but potentially fatal. So CVST should be considered in pregnant and young women. Timely diagnosis and treatment seem to be important in preventing mortality and deterioration of neurological function.

EP 039

Caesarean scar ectopic pregnancy: A case report

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Introduction: A caesarean scar (ectopic) pregnancy (CSP), although rare case, is a life threatening condition. It is rarest of all ectopic pregnancies whereby the gestational sac is fully or partially implanted within the scar caused by a previous caesarean section (CS). The first case was reported in 1978. Incidence has been estimated in overall caesarean delivery is 1/1800-1/2500. Up to this date, more than 1000 cases have been reported. This can be explained partly to the increasing number of CS performed and also to increasing awareness and better ultrasound diagnosis.

Case report: A 37 year old female presented to ward with chief complain of lower abdominal pain for 5 days and positive urine hCG strip result. But she had bleeding per vaginum 8 days back and it had spontaneously settled. Her period of amenorrhoea was 5 weeks. In obstetric history she was G3P2C2 with previous two caesarean section deliveries. Her first caesarean section was due to fetal distress and second one was due to passed section. General physical examination was normal. On per speculum cervix was normal. No discharge or bleeding through vagina seen. On bimanual examination uterus was bulky, anteverted, no cervical excitation and bilateral fornices were free with no tenderness. On investigations routine blood investigations were normal. On admission beta HCG level was 3405 mIU/ml and after 48 hours beta HCG level was 3889 mIU/ml, which shows less than doubling. Transvaginal ultra sound revealed empty uterine cavity with clearly defined endometrium and regular small gestational sac like structure of seven weeks seen in lower uterine segment anteriorly with no cardiac activity. Cervical canal was empty and adenexae normal. On Doppler hyperechoic rim of chorio-decidual reaction with excessive vascularity suggestive of caesarean scar ectopic pregnancy 2.1mm away for outer uterine wall. A diagnosis of caesarean scar pregnancy was considered. On third day of admission, medical management with intramuscular methotrexate 1.5mg/kg was injected after confirmation of absent fetal cardiac activity. As medical management failed patient was planned for hysterotomy.

Intra operatively bladder was separated from anterior uterine wall and hysterotomy done at previous scar site. Small soft and vascular mass bulged through the incision site. Products of conception was gently removed. It was communicating with uterine cavity. Edges of scar tissue were excised and gentle uterine curettage was done. Bilateral ligation and resection of tubes were done as per request of the patient. Tissue was sent for histopathological examination and diagnosis of caesarean scar pregnancy was confirmed.

Conclusion: Caesarean scar ectopic pregnancies can have very fatal and poor outcomes, including uterine rupture, massive haemorrhage and maternal death. Thus, it is important that early and accurate diagnosis of caesarean scar pregnancy is obtained in order to avoid complications and preserve fertility.

EP 040

A rare case of sigmoid volvulus in pregnancy; importance of early detection – a case report

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Introduction:

- Sigmoid volvulus is rare in pregnancy.
- Around 84 cases reported worldwide.
- Greater risk of morbidity and mortality for both mother and fetus if not diagnosed and treated promptly.
- Commonest cause of intestinal obstruction in pregnancy.
- Delay in treatment result in complications;
 - Maternal – perforation, peritonitis, sepsis, DIC.
 - Fetal – IUD, preterm delivery, sepsis.

Case History:

- 30 yr old primi gravida, diagnosed with recurrent sigmoid volvulus during pregnancy.
- At POG = 19 weeks; presented with vomiting, constipation, abdominal pain and distention in good general condition without features of sepsis.
- Underwent exploratory laparotomy. Findings – sigmoid volvulus around its mesentery decompression and sigmoidopexy done.
- Plan: elective sigmoid colectomy after delivery. Aim: maximum fetal maturity;
- Constipation related distention at 25th & 27th wks of POG. Managed conservatively.
- 4th episode – at POG of 31 weeks; Clinical examination – recurrence of volvulus, X-ray abdomen with fetal shielding – coffee bean appearance suggestive of sigmoid volvulus.
- 12 hr conservative management trial failed.
- As inflammatory response was building up, proceeded with emergency caesarean section + sigmoid colectomy with primary anastomosis.
- Postop – uneventful. Healthy mother discharged on postop day 7. Healthy baby given PBU care till optimum weight gain.

Discussion:

- Sigmoid volvulus in pregnancy is extremely rare with devastating maternal and fetal morbidity and mortality.
- Diagnosis – focused clinical history, examination and if needed, backed up by imaging (X-ray / MRI).
- Treatment options; resuscitation, conservative management trial, endoscopic reduction or colectomy.
- Endoscopic reduction – risk of iatrogenic rupture of already extremely dilated colon.
- Our case; POG=19wk – Decompression + sigmoidopexy safe for both mother and fetus.
- At POG =31wk; maternal survival was against fetal survival.
- Best maternal outcome, last option – colectomy.
- Risk – IUD/sepsis in continuing pregnancy due to pelvic contamination vs poor outcome in severely preterm neonate if terminated.
- Neonatal guidelines advice a course of steroid before delivery to induce fetal lung maturation in inevitable pregnancy termination.
- Best management option for this patient;
 1. 12 hr trial + IM steroid course
 2. If fail; EM LSCS + sigmoid colectomy
- In uncomplicated sigmoid volvulus, colectomy + Primary anastomosis done.
- Optimum hydration, Antibiotic coverage, early feeding improves postop outcome.
- Key of good prognosis;
 - awareness about the condition
 - early presentation and diagnosis
 - Intervention without delay

EP 041**Type two respiratory failure during pregnancy in a woman with myotonic dystrophy**

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Introduction: Myotonic dystrophy is the most common adult onset muscular dystrophy which has a prevalence of 1 in 8000 world-wide. It is characterised by progressive muscle wasting, weakness and prolonged muscle contractions (Myotonia). It has two clinically and molecularly defined forms, both are inherited by autosomal dominant pattern.

Type 1 myotonic dystrophy which is more common, caused by unstable CTG (Cytosine, Thymine, Guanine) trinucleotide repeats in the untranslated region of the gene DMPK (myotonic dystrophy protein kinase) on chromosome 19, which codes for a myosin kinase expressed in skeletal muscle. It can give rise to four phenotypes depending on CTG repeats size. Classic form of type 1 myotonic dystrophy usually develops in second or third decade of life and they can present with distal muscle weakness, myotonia, cataracts, conduction defects, insulin insensitivity, balding, respiratory failure, re-current abortions and testicular atrophy in males. Congenital myotonic dystrophy presents with infantile hypotonia, respiratory failure, learning disability, cardiorespiratory complications. Type 2 myotonic dystrophy results from expansion of the CCTG (Cytosine, Cytosine, Thymine, Guanine) tetranucleotide repeat in the first intron of the ZNF9 gene, the gene encoding zinc finger protein 9 on chromosome. They typically presents in third decade with proximal muscle weakness, myotonia, muscle pain and stiffness, posterior subcapsular cataract, testicular failure¹. Muscle weakness can get worse during pregnancy usually in the third trimester probably as a result of high progesterone level and this improves in the puerperium. Complications in these patients during pregnancy are increased risk of miscarriages, preterm labour and preterm rupture of membrane, increased risk of diabetes and related complications, lack of progress of labour due to decreased myometrial contractility, postpartum haemorrhage due to uterine atony and dysfunctional labour and increased risk of having caesarean section due to malpresentations.

Case report: A 39 year old mother of one child in her fifth pregnancy at 32 weeks of gestation presented to emergency treatment unit (ETU) with progressively worsening shortness of breath for three days. She had a fourteen year old daughter from her first pregnancy by normal vaginal delivery and her next two pregnancies ended up as first trimester miscarriages. During her fourth pregnancy she had a miscarriage at 22 weeks while she was treated in intensive care unit for severe pneumonia. She had had an eye surgery during her school age but no records were available. The current pregnancy was an expected pregnancy and at her booking visit at 13 weeks her BMI was 28.4 kg/m², blood pressure and other vital signs were normal. Her precordial examination was normal and there was mild drooping of eye lids which was specifically inquired and said to be there since her childhood. Investigations including OGTT, thyroid function tests and haemoglobin during antenatal care were normal and she was asymptomatic till this hospital admission. On admission to the ETU she did not have fever or cough, nor did she have any abdominal pain or chest pain. On examination she was severely breathless, respiratory rate was 36 per minute. Her arterial oxygen saturation was 92% on air and pulse rate was 180/min with blood pressure of 158/86 mmHg. Abdomen was distended and fundus was more than dates. She was admitted to the intensive care unit immediately. ECG showed atrial fibrillation and findings on echocardiogram were normal. Her haemoglobin level was 10.7 g/dl, serum electrolytes, renal functions and liver transaminases were normal. C reactive protein level was high, 39.3 mg/l. Arterial blood gas indicated a carbon dioxide retention which was suggestive of a type two respiratory failure. Ultrasound revealed a single live fetus compatible with gestational age and polyhydramnios. Due to worsening type two respiratory failure with distended abdomen it was planned to go ahead with delivery by caesarean section which was done under general anaesthesia on same day and live non asphyxiated baby delivered weighing 1.7 kg. Patient was ventilated at the intensive care unit for 2 days and her condition gradually improved. Blood culture and urine culture were negative and she was treated with IV Piperacillin, Tazobactam, oral clarithromycin and oral oseltamivir. When her husband was inquired he revealed that there was a familial disease causing muscle weakness in her family and her younger sister died of it 3 years back. She was seen by neurologist and diagnosed as having myotonic dystrophy and planned to follow up with electromyogram and family screening later. Her baby expired on day 7 due to respiratory failure probably due to congenital myotonic dystrophy. Risk of future pregnancies was discussed with her and offered IUCD insertion in 6 weeks postpartum.

Discussion: Myotonic dystrophy, though a rare disease, can present in women in reproductive age and have various implication on reproductive life. Initial clinical diagnosis may be challenging, but characteristic facial appearance with ptosis, weakness and wasting of the facial, masticatory muscles and the typical myopathic or 'hatchet' appearance, past history of cataract surgery and family history will help to suspect this condition. Gynaecologist can encounter these patients who may present with recurrent miscarriages or with a male partner having subfertility. Muscle weakness can get worsen during pregnancy as it progress, typically in third trimester they can present with type two respiratory failure often triggered by a lower respiratory tract infection. During obstetric practice, using magnesium sulphate in these patients should be done cautiously or avoided if possible as it can worsen the muscle paralysis. There is increased risk related to anaesthesia due to impaired pulmonary ventilation aggravated by even small doses of respiratory depressants, exaggerated responses to paralytic agents, prolonged post-op intubation, diminished cough reflex increasing the risk for aspiration pneumonia, cardiac arrhythmias associated with myotonic dystrophy. These patients should have a discussion regarding future pregnancies in their early reproductive life and ideally they have to complete their family at younger age as the disease would progress with the age and opt in to a permanent family planning method thereafter.

EP 042

Polyhydramnios, neonatal hemangioma, thrombocytopenia and coagulopathy consequent to placental chorioangioma: A case report

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Background and introduction: Placental chorioangioma is the most common benign tumour of the placenta, with overall prevalence ~1%. Mostly small, asymptomatic and clinically insignificant. Large tumours (diameter > 5 cm) are rare, act as arteriovenous shunts and associated with pregnancy complications and poor perinatal outcomes. We present a case of a large placenta chorioangioma causing polyhydramnios, neonatal hemangioma, thrombocytopenia and coagulopathy.

Case report: A 22 year old primi-gravid, at 34 weeks of gestation, presented with vague abdominal pain and discomfort for few days. On examination, her symphysio fundal height (SFH) was high for the period of gestation (POG). Fetal parts were not palpable and fetal heart was not easily audible. Oral glucose tolerance test (OGTT) showed gestational diabetes and was controlled with metformin. Ultrasound showed a single live fetus corresponding to her POG with severe polyhydramnios (AFI-45cm). 8.4 × 7.8 × 7cm heterogeneous mass lesion in the placenta at the cord insertion site with increased vascularity. The appearance was suggestive of placental chorioangioma. No evidence of fetal hydrops or single umbilical artery. Admitted to antenatal ward with pre-labour rupture of membranes at 37 weeks and 5 days of gestation.

Severe thrombocytopenia with platelet count of 28 × 103/μL. Spontaneous labour the following day and 6 units of platelets were transfused during peripartum period per the consultant haematologist. Delivered a baby boy with normal Apgar score and birth weight of 2.77 kg. Placenta was delivered completely with membranes and sent for histopathology. Placenta was 190 × 150 × 40 mm and 556 g with a dome shaped elevated mass 110 × 100 × 50 mm over the fetal surface of the placental disc close to the insertion of the umbilical cord.

Microscopic assessment confirmed chorioangioma with a well-defined tumour comprising of proliferation of capillary sized vessels and hyalinized stroma. Baby had a vascular malformation in the right thigh and the buttock diagnosed as Kaposiform haemangioendothelioma. Few days later baby developed haemangioma involving multiple areas of the skin, complicated by thrombocytopenia and coagulopathy later.

In addition, baby had a small ostium secundum atrial septal defect (ASD). Maternal thrombocytopenia did not improve after delivery, but it did with corticosteroid therapy, and thus diagnosed as immune thrombocytopenia.

Discussion: Placental chorioangioma consists of a benign angioma arising from chorionic tissue. Three histological patterns: angiomatous (most common), cellular, degenerate. More common in multiple pregnancies and in female babies. The most common clinical complication is polyhydramnios which is related to tumor size.

Polyhydramnios leads to: premature membrane rupture, preterm labour, placental abruption. Preeclampsia and post partum haemorrhage are associated with large chorioangiomas. Arteriovenous shunts in large chorioangiomas can impair fetal circulation by increasing the venous return to the heart, causing tachycardia, cardiomegaly and hypervolaemia. Consequently, increased risk of high output cardiac failure, oedema, hydrops, stillbirth and intrauterine growth retardation.

Haemolytic anaemia, thrombocytopenia, congestive cardiac failure and congenital anomalies are also seen. Abnormal tortuous vascular channels may cause red cell destruction and platelet sequestration, resulting in thrombocytopenia, microangiopathic hemolytic anemia, and disseminated intravascular coagulation. Connection between chorioangiomas and other vascular anomalies such as skin hemangiomas and single umbilical artery. Complex echogenic mass is different on ultrasound from the rest of placenta and tumor protrudes into amniotic cavity near umbilical cord insertion.

On Doppler, feeding vessel usually has same pulsatile flow as that of umbilical artery but may have arteriovenous shunt causing low resistance flow. MRI is used only in suspicious cases, and CT has radiation risk and poor

differentiation. Polyhydramnios can be treated with therapeutic amnio reduction and fetal anemia with intrauterine blood transfusion. Others include: endoscopic-guided vessel ligation, percutaneous interstitial laser, microcoil embolization, and endoscopic laser coagulation.

Conclusion: Placental chorioangioma is rare, which represents a challenge with its potentially serious complications adversely affecting pregnancy outcome. Regular monitoring by serial ultrasound, Doppler waveform surveillance and fetal echocardiography is recommended to detect complications early so that they can be addressed effectively

EP 043

Posterior reversible encephalopathy syndrome following pre eclampsia

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Introduction: Posterior reversible encephalopathy syndrome (PRES) is a neurotoxic state that occurs secondary to the inability of posterior circulation to auto-regulate in response to acute changes in blood pressure. PRES is rare presentation of pre-eclampsia. Clinical and radiological features of PRES include headache, cortical visual changes encephalopathy, seizures and parieto-occipital white matter edema visualized on imaging. The diagnosis is typically made clinically and supported by findings on magnetic resonance imaging of the brain. The treatment of PRES depends on the underlying cause. Correct recognition and treatment is crucial to avoid the permanent damage. Many cases resolve within 1-2 weeks of controlling the blood pressure.

History: A 32-year-old nulliparous woman, at her POA of 28+6, presented with the complaint of frontal headache and burning sensation of L/S eye. On admission her blood pressure was 170/100mmHg, pulse rate was 96b/minute, no fundal papilledema, no ankle clonus and urine albumin was 3+ in the dip stick test. Her antenatal history was uneventful. There was no past history of hypertension or seizures. Her hemoglobin level was 13.1g/dl and platelet count was 138,000/mm³. Renal and hepatic function tests were within normal limits. USS revealed fetal growth restriction with multiple fibroid uterus. Her blood pressure was not controlled with antihypertensive drugs. So after infusion of MgSO₄ for neuro protection, baby was delivered by caesarean section. On the day of surgery, she complained blurring of L/S vision. NCCT brain images were obtained after neurology consultation and revealed B/L parieto-occipital subcortical white matter edema caused by posterior reversible encephalopathy. Her blood pressure was controlled with nifedipine and enalapril and her visual symptoms improved after 5 days of surgery. She recovered completely from symptoms.

Discussion: PRES is usually not suspected by clinicians; it should be considered in those who present with visual disturbance, headache or seizures particularly in acute hypertension. Blood pressure control is essential to avoid irreversible damage to central nervous system. If diagnosed and treated promptly, the symptoms and radiologic features fully resolve spontaneously within days to weeks. The other possibilities include cerebrovascular haemorrhage, eclampsia, and clinical syndromes like PRES.

EP 044

Case reports on two abdominal pregnancies in scarred uteri

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Case 1: A 36-year-old gravida 3 at POA of 36 weeks, who had two previous elective LSCS who was suspected to have placenta percreta was transferred from a Base Hospital for further management of current pregnancy. Further ultrasound imaging confirmed the suspicion of placenta percreta and patient underwent midline laparotomy with preparation for a total abdominal hysterectomy in place. In exploration it was discovered that the pregnancy was displaced into the abdominal cavity and the placenta had acquired blood supply from bladder plexus and right lower lateral abdominal wall. Fetus was delivered safely. Placenta was not delivered due to complications and was planned for medical

management. She underwent conservative medical management and treated with methotrexate and underwent interval total hysterectomy in 4 weeks. Patient recovered with 1 L of blood loss in the second procedure. Baby was well but not breast fed due to methotrexate treatment.

Case 2: A 34 year old gravida 2 who had undergone emergency lower segment caesarian section from estate sector presented for an elective caesarian section. Routine ultrasound scan which was done to localize the placenta discovered that the pregnancy was extra-uterine and the possibility of an abdominal pregnancy. Radiologist scan confirmed the suspicion of abdominal pregnancy and patient underwent elective mid line laparotomy with preparation for performing a total abdominal hysterectomy at a POA of 36 weeks. In the exploration it was discovered that the pregnancy was secondary abdominal pregnancy following scar dehiscence and the placenta was adhered to the uterus and posterior abdominal wall, accommodated in pouch of Douglas. Baby was safely delivered. She underwent elective total abdominal hysterectomy and lost 3 L of blood during the procedure. Haemostasis achieved with abdominal packing.

Conclusion: Patients who have any abnormality in presentation and assessment in pregnancies following prior uterine surgeries, such as past LSCS should have a thorough assessment and exclusion of possible atypical site advanced pregnancies. Precautions should be taken to meet complicated placentation as well as blood loss. Multidisciplinary team discussion prior surgery could minimize patient risks.

EP 045

Case report in related to ectopic pregnancy in intestinal mesentery

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Introduction: Ectopic pregnancy is a pregnancy in which the fetus develops outside the normal endometrial cavity. Implantation of the fetus in intestinal mesentery is a rare occurrence and difficulty in diagnosis. It is a potentially life-threatening form of ectopic pregnancy.

Case presentation: 23-year-old woman, married for six months and POA of 6 weeks, admitted to our gynecology ward with abdominal pain for 5 days duration. She had tachycardia and blood pressure was 95/50mmHg. Her urine pregnancy test was positive and inward USS showed significant free fluid in the peritoneal cavity. Her Hb was 7.9g/dl. So, emergency laparotomy was done with the diagnosis of ectopic pregnancy. During the laparotomy, haemoperitoneum of 1.5 litre of blood with clots were evident and the uterus was about 6-8 week, bilateral tubes and ovaries were healthy. No obvious ectopic was identified. But, she had continuous bleeding from the paracolic gutters. Then, with the help of surgical team, she underwent midline laparotomy and bowel exploration. So, there was a bleeding ectopic pregnancy which has implanted to the mesentery of the ileum. Then the ectopic pregnancy was removed and bleeding sites sutured. During the surgery, she was resuscitated with transfusion of 4 units of blood.

Conclusion: Ectopic pregnancies can develop in many places outside the endometrial cavity. More than 95% of them occur within the fallopian tubes. Abdominal ectopics are much more rare occurrence with the incidence of 1% of all ectopic pregnancies and its diagnosis is very difficult. During its course of development placenta can implant to any organ in the abdominal cavity. Separation of the site of the implantation at any time of the pregnancy can lead to massive haemorrhagic shock as in this case.

EP 046

Instrumental vaginal deliveries associated perineal trauma at ward 05 Teaching Hospital Kandy in 2018

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Background: Birth related perineal injuries are common complication of instrumental vaginal deliveries. Nearly 85% of women experienced some degree of perineal trauma during child birth which results in hemorrhage, infection,

incontinence. Thorough assessment and careful selection of the mother for instrumental delivery is crucial as failed instrumentation is an indication for caesarian section and increase risk of maternal and neonatal morbidity with inexperience and unsafe hands.

Objective: To describe the instrumental delivery related perineal trauma in ward 05, Teaching hospital Kandy.

Methodology: This was retrospective study carried out at ward 05, Teaching hospital Kandy (THK), regarding the instrumental vaginal deliveries (IVD) performed during May 2018 to December 2018. Total number of 58 deliveries were audited. Parameters assessed were age, parity, maternal height, type of instrumental used (forceps or vacuum), onset of labour (spontaneous or inductions) and degree of perineal trauma.

Results: Overall rate of instrumental deliveries was 9.3%. Total number of instrumental vaginal deliveries was 58, out of that there were 41 (70.7%) forceps deliveries and 17(29.3%) vacuum deliveries. Number of instrumental vaginal deliveries performed on teenage (15-20 years) pregnancies was 10 (17.2%), 21 to 38 years was 46 (79.3%) and advance maternal age (>39 years) was 2 (3.4%). There was 43 (74.1%) primiparous and 15 (25.8%) multiparous mothers. As far as indication concern, fetal distress in second stage was 39.7% (23), delayed second stage was 55.2% (32), maternal heart disease was 1.7% (1). Assessment according to onset of labour, showed 36 (62.1%) spontaneous onset of labour and 22 (37.9%) inductions. Total 41% Mothers experienced tears, where first degree tears were 8.6% (5), second degree tears were 17.2% (10), third degree tears were 10.3% (6) and fourth degree tears were 5.2% (3). Majority 58.6% (34) did not experience perineal injuries except routine episiotomy.

Conclusion and recommendation: Rate of instrumental vaginal deliveries in this unit is compatible with global rate. Most frequent indication for the instrumentation was delayed second stage and majority of the instrumental deliveries offered for the primiparous than the multiparous mothers. Study revealed majority did not experience tears except episiotomy, while second degree perineal injuries was relatively high. Careful selection of the patient and operator experience is crucial for the success of instrumental delivery and prevention of the perineal injuries and it prevent the second stage caesarian section related maternal and perinatal morbidity. It requires continued education and the training of skills.

EP 047

Wilson's disease: A rare disease to cause hypopituitarism related premature ovarian insufficiency

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Introduction: Wilson's disease (WD) is a very rare autosomal recessive disorder with an estimated prevalence of 40 cases per one million. Wilson's disease impairs the biliary excretion of copper. Even though, the main pathological defect of WD lies within hepatobiliary system, this excess copper deposits in other tissues and organs to cause multisystemic disorder. In addition to the common hepatic and psychological manifestations, WD causes hypopituitarism. Here we report a case premature ovarian insufficiency in 34-year-old woman with WD.

Case description: This lady was referred with secondary amenorrhoea for 18 months duration. She was diagnosed patient with WD for six years and she was on penicillamine and trientine. At the time of the presentation she had satisfactory liver function tests, there were no features of other organ involvement. She attained menarche at the age of 13 years, and she had 28-30 days regular menstrual cycles until up to six months ago, until periods were becoming infrequent. She was nulliparous woman and was on the intra uterine contraceptive device as she was on teratogenic medications. In addition to the secondary amenorrhoea she had hot flushes and night sweats suggestive of hypoestrogenism. Her general physical examination and pelvic examination were unremarkable, and there were no features suggestive of a polycystic ovary syndrome. Serum FSH levels measured twice, six weeks apart were found to be in the menopausal range, and serum oestrogen level was low. TSH and Cortisol levels were marginally low to suggest hypopituitarism. There was no withdrawal bleeding following progesterone challenge test. Since her liver functions were satisfactory, she was started on combined low dose hormone replacement therapy.

Conclusion: Premature ovarian insufficiency occurs in 1% of women before the age of 40 years. Even though, hypopituitarism rarer causes than pituitary-ovary dysfunction for premature ovarian insufficiency, causes of hypopituitarism also should be considered when investigating for premature ovarian insufficiency.

EP 048

Sarcomatous transformation of a cellular angiofibroma in a middle aged woman: A case report of a rare vulvar tumour

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Introduction: Cellular angiofibroma is a rare recently described benign mesenchymal lesion chiefly involves the vulvar region. It is first described in 1997; since then, 79 published females cellular angiofibroma has been reported. It is found equally in men and women. It typically arises in middle-aged patients. Complete local excision of the tumor is the best cure as it has extremely low ability to recur. Interestingly, sarcomatous transformation has also been reported very rarely. Here, we describe a vulvar cellular angiofibroma that, although initially excised with a rim of normal tissue, exhibited tumour recurrence with sarcomatous transformation in a relatively long time period.

Case Report: A 42-year-old P2C2 woman presented with a solitary mass involving clitoral area of one-year duration in 2009. Ultra sound scan revealed a moderately echogenic well circumscribed lobulated solid lesion measuring $8 \times 6 \times 3.5$ cm in size. Duplex Doppler revealed multiple vascular channels within the mass, which demonstrate low resistance flow. There are no other mass lesions present at perineum. The clinical diagnosis was made as haemangioma of the clitoris, and tumour was excised with a rim of normal tissue with the conservation of clitoris. The histological sample showed benign vulvar cellular angiofibroma which was strongly positive for CD34 and negative for actin and desmin. Eight years later she developed a painful itchy lump ($65 \times 40 \times 30$ mm) close to the previous excision site, which involves the right mons pubis and clitoris possibly due to local recurrence. The mass was excised and sent for histopathological, immunohistochemical analysis. Immunohistochemically, the tumour cells were diffusely strong positive for CD34 and with intermediate to strong focal nuclear positivity for P53. EMA, ER, PR, ALK, SAM, S-100 protein and desmin were all negative. Ki67 in sarcomatous area show a proliferation index of 30%. Diagnosis was made as sarcomatoid transformation of a cellular angiofibroma in view of the previous diagnosis of an angiofibroma in 2009. FNCLCC grading – Grade 2 (Tumour differentiation 1/3, mitotic count 3/3, necrosis 0/2, Total 4/8) Seven months after excision the patient is well with no further evidence of local recurrence. currently she is on regular gynaecological oncology follow-up.

Discussion: Cellular angiofibroma of the vulva is a benign mesenchymal lesion, usually presenting as a painless mass. It is chiefly a tumor of middle-aged women, as in our case. Sarcomatous transformation and nuclear pleomorphism have been reported only in 12 women up to now. This lesion shows no tendency for metastasis based on the limited clinical follow-up. There is no article specifically addressing treatment and follow up. Local excision with a free margin and follow-up is the appropriate treatment as so far. Tumour recurrence in cellular angiofibroma need to be managed with multidisciplinary team input.

EP 049

Endometrial stromal sarcoma – presentation at young age

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Introduction: Endometrial stromal sarcoma (ESS) accounts for 0.2% of uterine malignancies with a annual incidence of 1-2 cases /million. Compared to other uterine malignancies it presents at young age and with the peak incidence between 42-58 years.

Case: A 28 years old mother of 1 child with secondary sub fertility for 3 years and previously healthy lady presented with 3 months history of heavy menstrual bleeding. Her cycles are regular (28 days) but duration bleeding had

increased from 3 days to 7 days and bleeding was heavy and significantly affected her quality of life. On examination She was mildly pale, abdominal and pelvic examination revealed a 12 Weeks size firm tender uterus. TVS revealed anterior wall well circumscribed 5 cm size hypoechogenic lesion with increased vascularity and endometrial cavity was distorted and morphology of endometrium was normal.

A tentative diagnosis of submucosal fibroid made and proceeded with myomectomy. However intraoperatively highly vascular uterus identified and myometrium was very fragile without a tissue plane, and wedge biopsy was taken for histology from anterior wall of uterus. Bilateral ovaries, pelvic side wall and omentum was normal.

Discussion: Preoperative diagnosis of endometrial stromal sarcoma is still being a challenge to gynecologist. Pelvic ultrasound scan with doppler studies are inconclusive. Endometrial sampling may helpful if tumor involving the endometrium can be identified. Magnetic resonance may play a role mainstay of treatment is surgical which includes total abdominal hysterectomy and bilateral salpingo oophorectomy. Role of lymphadectomy is contraversial. Post operative hormonal suppression with GnRH analogues and aromatase inhibitors plays an important role. Histology revealed and an low grade endometrial stromal sarcoma. She was referred to gynaecological oncology team for further management.

EP 050

A delaying diagnosis of endometrial adenocarcinoma: A case report

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Introduction: Uterine abnormalities are rare; and they occur in four to seven percent of general population. Most of these abnormalities do not cause symptoms. Because of its asymptomatic nature the diagnosis of anatomical malformations may go undetected. Even though the frequency of endometrial carcinoma is same in anatomically normal and abnormal uteri, there may be delay in diagnosis of the same, in a patient with anatomically abnormal uterus. Here is reported a case of endometroid adenocarcinoma of the uterus in a patient who had complete septum in the uterine cavity.

Case report: A 61 year old nulliparous woman presented to gynaecology clinic with two episodes of vaginal bleeding. She reached menopause at 55 years. She had essential hypertension and type 2 diabetes mellitus for five years and for four years respectively. She had satisfactory hypertensive and diabetic control at presentation where her body mass index was 29.8 Kg/m². Abdominal examination was unremarkable and there was no significant inguinal lymphadenopathy. On pelvic examination, there was no explanation for the vaginal bleeding. The transvaginal ultrasound scan revealed a normal sized uterus with normal adnexa. The endometrium was uniformly thickened (7mm). She underwent endometrial evaluation with outpatient endometrial aspiration. However, the histological assessment was negative for carcinoma and for cellular atypia. Since, her symptoms were persistent, she underwent dilatation and curettage under general anaesthesia but sample was inadequate for histological assessment. Patient was followed up with magnetic resonance imaging (MRI) and on MRI, the diagnosis of the complete septated uterus was made. There was irregular polypoidal growth in the left cavity of the uterus. In addition to that there were no other abnormalities detected on MRI scan. Since it was apparently early stage endometrial carcinoma, total abdominal hysterectomy and bilateral salpingo-oophorectomy was performed. On macroscopic examination of the uterus there was a complete septum from fundus to the cervix, and small polypoidal mass observed on anterior side of the left cavity. The ultimate histological diagnosis was well differentiated endometroid type adenocarcinoma without deep myometrial involvement.

Conclusion: Endometrial carcinoma is one of the commonest gynaecological malignancies. Since, the presentation is at early stages of the disease, it has a good prognosis in comparison to other gynaecological malignancies. A rare possibility of anatomical abnormalities should be kept in mind when investigating for symptoms suggestive of gynaecological malignancies.

EP 051

Distribution of stages of cervical cancer in a university hospital of Dhaka, Bangladesh

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Introduction: Cervical cancer is a second most common cancer in women of Bangladesh. According to WHO report it's incidence is 19.6/lac women of age 30- 60 years. Management of cervical cancer is done by surgery, radiotherapy or concurrent chemoradiotherapy. For proper management, information about the extent of the disease is critical for treatment planning. Clinical stage is the single most important prognostic factor. According to Gynaecological Oncology Group (GOG) report, the errors in FIGO clinical staging ranges from 24% in stage IB to 67% in stage II A. Now a days various imaging studies are used for staging of cervical cancer. Usually MRI is most informative regarding tissue penetration. So, MRI is used for diagnosis of the stromal, parametrial, bladder and vaginal invasion. But in Bangladesh, MRI is not easily available, it is costly and interpretation is often not correct. So, for staging of cervical cancer we have to depend on Examination Under Anesthesia (EUA) which is more objective and informative.

Study design: Aim of the study was to know the distribution of stages of cervical cancer in Bangabandhu Sheikh Mujib Medical University Hospital. Objective of the study was to do clinical staging by examination under anesthesia together with some accessory aids like cystoscopy and proctoscopy.

Type of study was retrospective observational done at the Gynaecologic Oncology Department of Bangabandhu Sheikh Mujib Medical University.

Total number of cases were 735 and duration of study was from December 2011 to June 2019. Study results are described in two groups according to report of EUA done from 08-12-11 to 01-08-17 and 02-08-17 to 30-06-19.

Procedure: Clinically diagnosed carcinoma cervix cases were evaluated for general physical condition. Then under anesthesia, a per speculum examination with two Sim's speculum was done to inspect the cervix, growth, vaginal walls (anterior, posterior and two lateral vaginal walls). The characteristics of the growth were noted in a tool designed to collect all the informations during EUA.

Then a careful bimanual examination followed by rectovaginal examination and digital per rectal examination were done for clinical staging of the disease. The growth seemed to involve the anterior vaginal wall, then cystoscopy was done. The growth seemed to rectal involvement, then proctoscopy and biopsy from suspected site also obtained. Finally an wedge biopsy from the growth was taken for histopathological confirmation. All the clinical examination findings were recorded in a predesigned schematic format.

Results: Statistical analysis was done by dividing the cases in two groups, from December 2011 to August 2017 and from August 2017 to June 2019. Aim of doing separate analysis is to see the differences in patients' characteristics and stages of cervical cancer at the time of presentation. Parameters observed were age, size of tumor, cystoscopy done or not done, biopsy taken or not taken and final diagnosis of the stage of the disease. No difference was found regarding age distribution, size of tumor and rate of biopsy taking among two groups. Differences found were in rate of performance of cystoscopy which was lower rate in second group of patients (27.3% vs 2.73%). Another difference found in stage of the disease. Most common stage found in first group was stage II B (28.26%). In second group also Stage II B and higher in number (50.78%).

Conclusion : Rate of cystoscopy done decreased in 2017 and 2018. Number of stage II B cases has been increased in 2017 and 2018. This difference may be due to change in operators performing the procedure and due to observer variation.

EP 052

Is caesarean section safer than normal vaginal delivery

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Introduction: The use of caesarean section (CS) has increased dramatically worldwide in the last decades. There is no evidence for maternal and perinatal benefits with CS rates higher than 15%. In fact some studies have shown a link between increasing CS rates and poorer outcomes. But still many obstetricians as well as pregnant women has an attitude that CS is a safer option for delivery compared to vaginal delivery.

Method: The study setting was the professorial unit (ward 3 and 15) of the De Soysa Hospital for Women. A detailed analysis of the master database file of the RobsonApp was used to retrieve the data. The independent variables collected are shown in the screenshot of the RobsonApp. A mySql database was used to store the input data from the RobsonApp. It was this file which was queried using the SQL language and the data outputs are given in the results.

Results: The total sample of the RobsonApp at this time was 862. The total multipara subsample was 443. Multipara who underwent CS were 148. Delivery complications in this subsample was neonatal problems 7/148. Therefore multipara CS women had a delivery complication rate of 7/148 (0.4%). Multipara who did not undergo CS were 295 in all. This subsample had a rate of delivery complication, Post partum haemorrhage (PPH) 2/295 and neonatal problems = 2/295. Therefore multipara who had normal vaginal delivery had a delivery had a delivery complication rate of 4/295 (0.13%). Thus multipara CS had a delivery complication ratio 3 times ($0.4/0.13 = 3.07$) that of vaginal delivery. The total nullipara subsample was 394. Those who underwent CS were 125. Their delivery complication distribution was neonatal problems 8/125, PPH and other 6/125. Thus nullipara CS had a delivery complication rate of 14/125 (11.2%). Nullipara who did not undergo CS were 269. Their delivery complications distribution was PPH and other 3/269, neonatal problems 2/269. Thus nullipara normal vaginal delivery had a delivery complication rate of 5/269 (0.18%). Therefore in nullipara CS had a delivery complication ratio 14 times ($11.2/0.18 = 3.07$) that of vaginal delivery.

Conclusions and Implications: In both multipara and nullipara women the delivery compilations were much higher in CS group compared to the vaginal delivery group. This relationship was much pronounce in the nulliparous women. So it is vital that we take every effort to reduce the caesarean sections in nulliparous women.

EP 053

Frequency of maternal request as a cause for repeat caesarean section in past one section women

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Introduction: The rate of caesarean section (CS) has increased dramatically worldwide in the last decades particularly in middle and high income countries. There is no evidence for maternal and perinatal benefits with CS rates higher than 15%. In fact some studies have shown a link between increasing CS rates and poorer outcomes. Women with past one CS refusing for vaginal birth after caesarean section (VBAC) is a major factor for increased CS in multipara women. We intended to find the impact of these group on the CS rate of a unit.

Method: The study setting was the professorial unit (ward 3 and 15) of the De Soysa Hospital for Women. A detailed analysis of the master database file of the RobsonApp was used to retrieve the data. A mySql database was used to store the input data from the RobsonApp. It was this file which was queried using the SQL language and the data outputs are given in the results.

Results: As of this writing a total of 862 deliveries were recorded. There were 394 nulliparous pregnant women in the sample of which 125 women underwent caesarean sections (CS) (Rate 31.7%). Of this group 96 were Emergency CS while the rest were maternal request/non consent for vaginal birth- 9, breech - 6 and miscellaneous 14. There were 443 multipara pregnant women in the sample of which 148 women underwent caesarean sections (CS) (Rate 33.4%). Of this group 68 were Emergency CS while the rest were maternal request, non-consent for VBAC- 30, past two or more CS - 28, breech - 4, miscellaneous - 8. Therefore the maternal request for repeat CS as causes for true elective CS rate in multipara was (30/80) 37.5% which was the highest contributing factor for the unit caesarean section rate.

Conclusions and implications: Once a caesarean section is performed the women tend to be uncomfortable to accept the choice of VBAC. They request a repeat caesarean section most of the time despite careful counselling. This has resulted in a high elective caesarean section rate in multipara women. This can be reduced by reducing the primary CS rate in nulliparous women and by having a dedicated VBAC counselling clinic with a trained staff for VBAC counselling and by increasing the labour ward care.

EP 054

Design of an information technology tool for quality improvement in obstetrics

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Introduction: Mobile applications (apps) are increasingly used in clinical settings. Apps available to patients and physicians are rapidly expanding. While generic electronic medical record system deployment in obstetrics is lagging the Computerized Decision Support Systems (CDSS) are being increasingly used. A mobile app named “RobsonApp” using jQueryMobile technology was designed and deployed in a university based tertiary care hospital in Sri Lanka to collect data on delivery details according to the Robson classification.

Method: RobsonApp is a smartphone based webApp designed to run on any device thus ensuring the principles of BYOD (Bring Your Own Device) computer usability principle. A MBBS qualified medical demonstrator was asked to collect the data using the RobsonApp. Her training was minimal requiring just half an hour. Training included the access to the RobsonApp with a URL and data definitions of the given text fields in the home page of the application. Application comprises only 1 page and all the functionality is limited to 2 events namely data saving and data analysis. She was given access to the patients in the professorial unit of De Soysa Hospital for Women. The data collection was live and prospective.

Results: As of this writing a total of 862 deliveries were recorded. Total Caesarean Section (CS) rate is 32.0%. All the independent variables required to classify the women into 10 Robson Group Classification were collected real time with 100% efficacy. Number of patients whose data could not be entered due to data deficits was 10 for 862 so far. Her data collection was integrated into the routine ward work without interruption of the ward routine. Successful completion of the project up to this point in time suggests the utility of the RobsonApp for routine use of any obstetric unit in Sri Lanka. Each pregnant mother required only 2-3 minutes to collect the required data by the data collector. Therefore it can easily be incorporated into the process of writing discharge notes by the house officers.

Conclusions and implication: RobsonApp can be successfully integrated into the usual obstetric ward workflow. The only extra work required for the RobsonApp to be filled is few minutes. But this work will have much valuable returns by way of producing much valued data for audits and research on obstetric service quality.

EP 055

Automation of obstetric audits in a teaching obstetric unit of a tertiary care hospital in Sri Lanka

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Background: Mobile applications (apps) are increasingly used in clinical settings. Applications available to patients and physicians are rapidly expanding. While generic electronic medical record system deployment in obstetrics is lagging the Computerized Decision Support Systems (CDSS) are being increasingly used. A mobile app named “RobsonApp” using jQueryMobile technology was designed and deployed in a university based tertiary care hospital in Sri Lanka.

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Results: Robson classification WHO implementation manual gives clear criteria for interpretation of the data generated from the Robson 10 group classification. There are 3 dimensions of data interpretation suggested by the WHO. First the data quality. Second the underlying maternal population data and finally the caesarean section rates per each 10 groups. Formulas and achievable standards for each group in the Robson classification is suggested by the WHO based on the multi-country survey and the Robson’s original data from his unit. Using these standards and criteria RobsonApp gives an audit report just by 1 click of a button

Conclusion and implications: The CS rate analysis is automated and the audit criteria are evidence based. The definitions of the audit standards are clearly expressed. Use of this tool for audit is feasible in any obstetric unit planning to improve and benchmark the services offered to women in the area.

EP 056

Birth experience of pregnant women delivering at the Professorial Unit of De Soysa Maternity Hospital, Colombo

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Introduction and objectives: Over the years Sri Lanka has done remarkably well reducing the maternal and neonatal mortality with very limited recourses. WHO introduced respectful maternal care in 2018 emphasizing the need for maternal satisfaction and improvement of quality of care. Positive birth experience can lead to many benefits for the mother and baby. Evaluating the mothers experience and identifying the areas need to be improved is mandatory, if we are to improve maternal satisfaction.

Our aim was to assess the level of satisfaction regarding antenatal, intrapartum and postnatal care of pregnant women delivering at the Professorial Unit of De Soysa Maternity Hospital, Colombo.

Methods: A descriptive cross sectional study carried out among 110 pregnant women admitted and delivered in the University Obstetrics Unit of De Soysa Maternity Hospital, Sri Lanka. A self-administered questionnaire was prepared evaluating WHO recommendation for a positive birth experience. Data was analyzed using SPSS.

Results: In antenatal care least satisfied area was waiting time (63.3%) during clinic visits while primi mothers were highly satisfied with the care given by doctors in antenatal clinic.

Majority were highly satisfied for offering a drink during labour (87.3%) but were not happy for not offering a light diet (17.3%). Allowing to mobilize and adapt any comfortable position during labour were also poorly rated (58.2%). Multipara mothers significantly were more satisfied regarding pharmacological pain management and advises given about family planning than primi mothers.

In postnatal care majority less satisfied with advises given about episiotomy care (51.8%) and identification of the neonatal conditions (50.0%). Patients birthing for the second time or more were more satisfied with the overall care they received. Higher satisfaction with dignity and respect in labour room, explaining labour process, offer a drink in the labour room and care given by the doctors in postnatal ward was associated with being a Buddhist as opposed to other religions. Individuals who were unemployed, less educate and having a low income, more satisfied with the information provided regarding family planning. Employed women were unhappy about the care given by minor staff in the postnatal wards.

Conclusions: There are many aspects in provision of care where the patients were satisfied. Nevertheless there are areas need to be improved. Especially socio economic and religious differences in perceived care should be addressed. Measures to reduce waiting time at the antenatal clinic should be taken. The staff should be educated about the WHO recommendations regarding respectful care and positive birth experience.

EP 057

A rare case report of bilateral ovarian fibrothecoma causing hyperandrogenism in a postmenopausal woman

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Introduction: Postmenopausal hyperandrogenism is a state of relative or absolute androgen excess due to various causes, leads to clinical manifestations. One of the rare causes for androgen excess is sex cord-stromal tumour of the ovary.

Ovarian fibrothecoma is generally a rare benign tumour which is usually unilateral. Typically, fibrothecomas are almost always oestrogenic and only 11% of cases are virilising.

Case report: A 57-year-old, menopausal lady with 10 year history of virilisation with androgenic alopecia and hirsutism, presented with progressively worsening abdominal pain of one-year duration. She had irregular periods with the history of 1ry subfertility which was not investigated previously.

She was overweight and had male pattern of alopecia, increased muscle mass and clitoromegaly. She had score of 16 on modified ferryman-gallwey scoring system for hirsutism. Her systemic examination was normal.

Case report: A 57-year-old, menopausal lady with 10 year history of virilisation with androgenic alopecia and hirsutism, presented with progressively worsening abdominal pain of one-year duration. She had irregular periods with the history of 1ry subfertility which was not investigated previously. She was overweight and had male pattern of alopecia, increased muscle mass and clitoromegaly. She had score of 16 on modified ferryman-gallwey scoring system for hirsutism. Her systemic examination was normal. On further investigations, there was elevated total testosterone (1.78 ng/ml) with normal DHEAS (0.17 µg/ml). Other investigations including hormonal profiles and

CA125 within the normal limits. There were bilateral solid adnexal masses (Right - $6.7 \times 4.4 \times 3.6$ cm, Left - $7.4 \times 4.6 \times 3.2$ cm) on USS. On CT scan, there were bilateral solid adnexal mass lesions in favour of benign ovarian neoplasm with unremarkable adrenal glands. With the suspicious of androgen secreting tumour of ovaries, total abdominal hysterectomy and bilateral salphingo-oophorectomy was performed. The histological sample showed ovarian fibrothecoma without evidence of malignancy. Postoperatively serum total testosterone was normalized in 3 months with significant clinical improvement.

Discussion: Hyperandrogenism is a common and distressing condition in women which is due to disruption of normal androgen production from ovary / adrenals. Postmenopausal hyperandrogenism can be the result of numerous etiologies ranging from normal physiologic changes to ovarian or rarely adrenal tumours.

Ovarian fibrothecoma is usually an oestrogen secreting tumour. Fibrothecoma of the ovary with hyperandrogenism are of rare occurrence. In contrast to other virilising ovarian tumours, which present as sudden onset and rapid progression of hyperandrogenism and early virilisation, ovarian fibrothecoma may present as slowly progressive hyperandrogenism.

EP 058

Outcome of assisted reproductive technology (intra uterine insemination) in Colombo South Teaching Hospital

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Introduction: Assisted reproductive technologies are considered as an established therapy for the treatment of infertility. Among them intra uterine insemination (IUI) is a simple, easy and non-invasive with a reasonable success rate.

Objectives: To assess the treatment modalities used in the Unit and the possible factors contributing to the outcomes of the IUI in a government fertility center in Colombo.

Methods: Descriptive analysis of all the IUI that had taken place from January to June 2019, at the Fertility Center in Professorial Obstetrics and Gynaecology Unit of CSTH was considered.

Results: Out of the 274 IUI procedures performed during this period most had been attempted on couples who had been sub fertile for a period of less than six years (77%). It was the first attempt in 46% of them with the numbers decreasing drastically when it comes to the 6th (0.4%). Most of females (34%) and males (39%) were in age range of 30-34 years. When considering the extrinsic treatment for follicular maturation, a greater number were treated with Clomiphene (75%), with average dose of 100mg daily, whereas 21% were induced with an average dose of Letrozole 5mg daily and only 4% were injected with Follicular stimulating hormone as a treatment modality and all of them have received HCG. This was successful in 8% of the patients with more being on the first attempt (67%) than the subsequent ones. 86% of the females who received clomiphene only, have conceived in comparison to those induced with letrozole alone (9.5%) or letrozole and clomiphene together (5%) and all of them had received Intramuscular human chorionic gonadotropin (HCG) injection 5000u (90%) or 250u of recombinant HCG (10%) on D14 of menstrual cycle. 80% of couples have succeeded in their first or second IUI attempt, out of all pregnancies.

Conclusions: Accordingly 92% of the failure rate of IUI may be due to both maternal and paternal factors, old age and increased duration of subfertility. Increasing parental age is one of main reason, resulting low ovarian reserve, poor quality ovums and sperms, chromosomal defects. Newly married couples has high pregnancy outcome even with one or two IUI attempts because they have less chance to encounter these problems.

EP 059

Evaluation of pregnancy rate after intra uterine insemination (IUI) according to number of cycles

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Introduction and objectives: Intra uterine insemination is a simple and non-invasive procedure which is less expensive compared to other methods of assisted reproduction. Various recommendations have been made about maximum number of IUI cycles that should be performed but evidence supporting the possible limit is lacking. The objective of our study is to evaluate the success rate after an IUI according to number of attempts.

Methods: A retrospective analysis of data from all the IUI that had taken place from June 2017 to June 2019 at Colombo South Fertility Center was undertaken. Primary outcome measure was pregnancy rate per cycle. 640 Couples with diverse causes of infertility were included in the study and parameters were compared.

Results: Overall 1042 IUI cycles were performed during this period and it was the first attempt in 68% of them with the numbers decreasing drastically when it comes after the 6th attempt (0.6%). Most of females 54.3% and males 63.9% were in age range of 30-40 years. A greater number were treated with Clomiphene, with average dose of 100mg daily, whereas others with letrozole 5mg daily or FSH injections and all of them have received HCG.

For first intrauterine insemination attempt, the success rate was 9.1% per cycle and for first four attempts the mean pregnancy rate was 6% per cycle. Moreover pregnancy rate in 5th, 6th and 7th cycle were 3%, 9% and 33% respectively and after 7th cycle no pregnancies were reported.

Conclusion: According to this study a high success rate was recorded in first four IUI attempts but success rate up to 7th attempt was acceptable. It does not offer rationale to cancellation of IUI after 6th attempt as these results demonstrate that it is reasonable to conduct high order IUI cycles. However in this study the success rate of IUI was determined only according to number of IUI attempts and not on the cause of infertility.

EP 060

Type-A Mayer Rokitansky Kuster Hauser (MRKH) syndrome managed with vaginoplasty – A case report

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Introduction: Mayer Rokitansky Kuster Hauser (MRKH) syndrome is a rare congenital disorder characterized by aplasia or hypoplasia of uterus and / or vagina resulting in primary amenorrhoea. Incidence of MRKH syndrome is 1 in 4500. There are 2 types. Type A is isolated aplasia or hypoplasia of uterus and / or vagina and type B is associated with other anomalies like cardiac, renal and skeletal anomalies. Affected females are 46XX with normal secondary sexual characteristics.

Case report: A 21 year old lady presented with primary amenorrhoea, which was not investigated properly. She didn't have history of cyclical abdominal pain. Her past medical history and past surgical history was not significant. There was no family history of primary amenorrhoea. On examination she was averagely built. Her secondary sexual characteristics were normal. Breast and pubic hair development was at Tanner stage 4 to 5. Vaginal examination revealed blind ended vagina and ultra sound scan abdomen found normal ovaries with absent uterus. Diagnostic laparoscopy was performed and found to have aplasia of uterus and upper 2/3 of vagina. Both ovaries and fallopian tubes were normal. She was further investigated for other associated anomalies and found to be normal. She was diagnosed to have Type-A MRKH syndrome. She was counselled and surgical vaginoplasty was performed. Currently she is following up at gynaecology clinic.

Conclusion: Young women presented with primary amenorrhoea should be investigated properly to diagnose or to exclude MRKH syndrome. Young women diagnosed to have MRKH syndrome, become very anxious and depressed once they are aware about the condition. It affects their sexual life, married life and reproductive life significantly. They should be counselled properly throughout the investigations and following diagnosis. Vaginoplasty is the key treatment option to re-establish their sexual life. They can have their own children with assisted reproductive techniques and surrogacy.

EP 061

Gynaecological malignancy screening and contraception practices among female health care workers at District General Hospital Matale

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Introduction and objectives: Contraception and gynaecological malignancy screening programs are freely provided in Sri Lanka. Despite availability of malignancy screening programs, still the number of first detected advanced stage malignancies are reported which could have easily prevented. Mainly due to social issues, negligence on contraception results in unwanted pregnancies ended up in unsafe abortions and increased number of advanced maternal aged pregnancies. However, specific occupational groups seem to not accessing this free service, possibly due to lack of free time. This study was aim to assess the contraceptive prevalence and gynaecological malignancy screening among the female health care workers at District General Hospital Matale.

Method: Self-administered questionnaire was provided to female health care workers and 91 of them responded including doctors (n2=,2.2%), nurses (n66=,72.5%), public health midwives (n8=,8.8%) and health attendants (n15=,16.5%). Questionnaire covered contraception methods, menstrual problems, pap smear history, breast examination and screening.

Results: Of the 91 responders all of them were educated above ordinary level and 10 (11%) were degree holders. of the 63 (69%) menstruating females 26 (41%) were not using any contraception method while sterilization (n=14,22%) and intrauterine contraceptive device (n=13,20.6%) were the commonest methods used. Two (3.1%) were practicing traditional methods including withdrawal method.

Forty-seven (51.6%) of them never had pap smears in their life and 21 (23%) and 16 (17.6%) had pap smears within last 3 years and 5 years respectively.

Except for one all others were performing self-breast examination and 33 (36.3%) were doing monthly and 12 (13.2%) have undergone screening by a physician.

Conclusions: Health care workers frequently expose to see the complications of not adhering to proper contraception leading to criminal abortions and advanced cases of cervical and breast malignancies. Yet, their usage on proper contraception and cervical or breast cancer screening are not satisfactory. Further studies with more number of participants in different hospitals warrant more accurate information. Introducing programs targeting local hospital staff are essential to improve the outcome.

EP 062

Heavy menstrual bleeding in a patient with essential thrombocythemia with JAK 2 V617F mutation

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Background: Essential thromocythemia (ET) is an acquired myeloproliferative disorder (MPD). It is characterized by elevated platelet number with a tendency to thrombosis and hemorrhage. JAK2 V617F mutation is found in a subset of people with ET.

Case report: 41 year old female patient was referred with a two weeks history of per vaginal bleeding without any other bleeding manifestations. She has dropped her haemoglobin value from 12,8g/dl to 10.8g/dl recently. She was found to have superior sagittal sinus thrombosis while investigating on severe headache for one month duration in 2016. She was positive for JAK 2 V617F mutation, but negative for thrombophilia screening and Ham test. Her bone marrow biopsy features has suggested of myeloproliferative disorder and the diagnosis of essential thrombocythemia has been made. She was started on hydroxyurea regimen and aspirin 75mg nocte.

Trans-vaginal ultrasound examination didn't show any significant uterine or ovarian lesions. Intrauterine contraceptive device was noted insitu. As heavy menstrual bleeding can be due to the intrauterine device itself, it was removed. But her symptoms persist and therefore she was prescribed with norethisterone 5mg three times a day for three weeks and iron supplementation, for which she responded. Her treatment for thrombocytopenia was continued.

Discussion: Heavy menstrual bleeding is a common symptom which makes patients to visit their gynecologist frequently. Causes for heavy menstrual bleeding includes structural causes like polyps, adenomyosis, leiomyoma, malignancy and hyperplasia and functional causes secondary to coagulatory disorders, ovulatory dysfunction, endometrial and iotrogenic reasons. (FIGO-PALM COIEN Classification)

There can be instances where the first presentation of a bleeding disorder can be heavy menstrual bleeding. Therefore it is important to consider these rare possibilities when investigating for a common symptom like this. Although our patient was diagnosed with a bleeding disorder previously her symptom of heavy menstrual bleeding was not due to the bleeding disorder, but due to gynecological reasons. Therefore it is important to manage the patient as whole rather than managing conditions separately. Multidisciplinary management involving a gynecologist and a hematologist will be more beneficial for these patients.

EP 063

Knowledge, attitude and practices of women who have children with congenital heart defects presenting to cardiology unit at Lady Ridgeway Hospital on family planning, and related other issues in the family and child health

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Introduction: Birth of a child with congenital heart disease is shocking to the parents and challenging to the caregivers therefore parent's understanding regarding the heart disease is utmost important in managing a child with heart disease. Since the number of children who survive and entering to adolescence is increasing with advancement of technology, the need of identifying them as "sexually mature individuals" is also equally important as managing their heart disease. If mothers are knowledgeable about their child's heart condition, regarding contraception they are in a better position to educate their children regarding their parenthood.

Objectives: Objectives of this study was to study the knowledge regarding the nature of the congenital heart defects and how much the mother is educated about, to assess the mother's knowledge on contraception and to assess their view regarding contraception knowledge in children and to determine whether mothers welcome fetal echocardiographic diagnosis in the next pregnancy.

Methodology: A Descriptive cross sectional study was conducted in the Cardiology Clinic, Lady Ridgeway Hospital, Colombo for 100 mothers who have children with congenital heart diseases in April to May, 2019. An interviewer administered pretested questionnaire and medical records were used to collect data after taking ethical clearance from the Ethical Review Committee, Lady Ridgeway Hospital, Colombo.

Results: In this study population (n=100) majority of the mothers (45%) were educated up to Ordinary Level and 66% were housewives. 34 children were males and 66 were female children. VSD (27%) and ASD (25%) were the most common congenital heart defect followed by outflow tract abnormalities (15%), TOF (13%), valvular abnormalities

(6%) and other lesions (12%). Only 34% can name their child's heart lesion completely whereas 50% knew it partially and 16% did not know about it. 36% could mark the lesion completely on a given diagram and 48% didn't know where the lesion was. Among the 39 children who has undergone surgical correction, 82% mothers (n=32) knew about the procedure and 79% mothers (n=31) knew about the indication of surgery as well. Among the 17 children who was on long term drug treatment 71% (n=12) of mothers knew the name of the drug, 53% (n=9) knew the dose of the drug, 82% (n=14) knew the reason for giving it and 100% were aware about the importance of proper compliance. 82% of the mothers didn't have any plans for a future pregnancy and among them 14.6% (n=12) wanted to delay the next pregnancy till the child's situation is settled, 15.9% (n=13) was busy with affected child's duties, 35.4% (n=29) were afraid of having another child with congenital heart disease and 58.5% (n=48) said that they have completed their families. Almost all (n=100) knew about the contraception methods except regarding the emergency contraception pill, which was only known by 64%.

Majority (98%) preferred to have a fetal echocardiographic diagnosis in the next pregnancy. Among the mothers who had daughters, 92.4% (n=61) believed pregnancy is a risk for a woman with existing heart disease. 97% of mothers believe that a woman with heart disease should receive specialized opinion on pregnancy and method of contraception. 97% (n=64) were going to educate their daughter regarding her disease, 83.3% (n=55) were going to educate their daughters regarding contraception use, and of them 27.3% will educate at menarche, 34.5% when they are getting married and the majority of 38.2% will educate them in between menarche and marriage. Among the 16.9% (n=11) who were not willing to educate the daughter regarding contraception stated that she should learn by herself (72.7%) or someone else (doctor) should educate her (54.5%).

Conclusion: The knowledge of mothers regarding the management of the child's disease was good although they have limited knowledge regarding the name of their child's heart lesion. Almost all of the participants had very good knowledge regarding contraception, but as some of them were reluctant to teach their daughters on this aspect it would be beneficial for Sri Lanka to improve and develop adolescent clinics on reproductive health.

EP064

Suspected pulmonary embolism and post renal transplant Complicating pregnancy - A case report

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Introduction: Pregnancies following renal transplant have been reported worldwide. Renal transplant recipient patients have an eightfold higher risk of thromboembolic events than that of the general population. The prevalence of pulmonary embolism in those with kidney transplant is 227 per 100,000 populations. Risk of thromboembolism is higher during pregnancy being a pro-coagulant state. With the physiological changes in pregnancy and post renal transplant changes, managing such patients are extremely complicated and requires multi-disciplinary involvement. We came across a patient with multiple medical problems who conceived after renal transplant.

Case report: A 37-year-old lady with a history of snake bite at the age of 8 years was diagnosed with end stage renal failure at the age of 28 years while investigating for proteinuria and back pain. She underwent renal transplant and was on immunosuppression with stable graft function. She conceived naturally after 8 years of primary subfertility. Her initial antenatal period was uneventful, but she experienced recurrent episodes of shortness of breath toward the latter part of second trimester. Around 28 weeks she had sudden onset shortness of breath with vomiting and required to admit to the ward. she had marked dyspnea with tachycardia. Oxygen saturation was normal and other vital parameters were normal. Lower limb ultrasound did not reveal deep vein thrombosis. Echocardiogram showed mild RA/RV dilatation without pulmonary hypertension. However, her D-dimers were elevated repeatedly. At the multi-disciplinary meeting, considering the contrast medium risk to her transplanted kidney and fetal exposure to the radiation, it was decided to continue with anticoagulation without performing CT pulmonary angiogram. She was started with enoxaparin and which was later converted to warfarin. She had low bicarbonate levels and was managed with calcium carbonate supplementation for renal tubular acidosis. Her pregnancy was complicated with iron deficiency anemia and gestational diabetes requiring blood transfusion and insulin therapy respectively. She underwent caesarean section at 37 weeks of gestation due to posterior placenta previa and delivered a healthy girl weighing 3.2 kg. For postpartum 6 weeks she was continued with anticoagulation and was closely followed up at renal and obstetric clinic.

Conclusion: Managing an antenatal patient with multiple medical problems is complicated and always need multi-disciplinary inputs. Although much evidence is available, considering thromboprophylaxis in antenatal patients following renal transplant will reduce the risk of thromboembolic events.

EP065

A Rare Case of Squamous Cell Carcinoma of Base of The Tongue In Pregnancy – A Case Report

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Introduction : Cancer is rare in pregnancy (1 in 1000) ; commonest being leukemia, breast CA, cervical CA, melanoma .5.4% rise over last 30yrs .Squamous cell carcinoma (SCC) represent 95% of oropharyngeal tumours. Commonest in elderly & smokers.SCC in base of the tongue rare in young, nonsmokers.incidence increasing gradually worldwide.Very few reported cases of SCC of base of tongue in pregnancy in literature. None in Sri Lanka. Locally advanced tumors respond well to chemoradiation

Case History: A 24yr old P4C1 mother in 17th week of pregnancy, diagnosed with squamous cell carcinoma of base of the tongue with a positive cervical lymph node.Presented to ENT unit with sore throat at 17th Week. Growth in base of the tongue detected. Possible stage= T3N1M0, CT not done. Unsuitable for surgery as locally advanced. Family eager to have second child. Multi-Disciplinary Meeting held including patient and teams of Obstetrics, ENT, Oncology, OMF surgery, Radiology & Neonatology. Family debriefed on available options and risks. Proceeded with best option; chemotherapy, aiming termination at 28weeks. (minimum gestation with best neonatal survival rate)Chemotherapy commenced at 19th week with IV Carboplatin 600mg. Developed neutropenic sepsis with shock. Medically managed but recurred following 2nd dose of IV carboplatin 400mg with prophylactic GCSF cover. Pregnancy terminated at 28th week in a Specialized maternal & Neonatal Center. Baby weighing 890g, currently on NICU care. Mother currently on radiotherapy + chemotherapy with IV Cisplatin as adjunct at specialized Cancer Institute. Breastfeeding avoided.

Discussion : SCC of base of the tongue is rare in young, non-smokers .Common presentation- sore throat, voice change,dysphagiaExamination- visible tumour, palpable nodesCT, MRI, chest X-ray Imaging studies for staging. Ideal Treatment – Radiotherapy (Brachytherapy)
Treatment in pregnancy depend on;

- Prognosis of malignancy
- course of pregnancy
- Patients' wishes
- Prognosis of SCC in base of tongue in young; smaller survival rate & greater local recurrence
- prognosis unrelated to pregnancy
- Radiotherapy in pregnancy;
- linear accelerator rongen rays in parallel opposed fields to lesion
- max fetal dose 50-100 mGy
- Shielding to minimize scatter & leakage
- Lethal in T 1, reduced risk in T 2 & 3
- Fetal toxicity dose dependent
- Chemotherapy in pregnancy;
- Relatively safe after T 1
- Fetal effects – IUGR, cytopenia, ototoxicity, rarely mental retardation
- Worldwide survival rate of extreme preterm babies; 6% at 22wks 78% at 25wks 94% at 28wks
- Less in developing countries
- Course of maternal steroids improve survival of preterm babies

Case patient

- Not suitable for surgery – locally advanced
- Not suitable for radiotherapy – lack of optimum fetal protection facilities
- Chemotherapy was best available option
- Acceptable reduction of tumour size not seen
- Problems faced ;
- Recurrent neutropenic sepsis even with prophylactic GCSF transfusions
- Threat for airway
- Malnutrition due to dysphagia & drugs
- Pain
- Fetal - IUGR, toxicity of drugs used during septic episodes

Chemo withheld, pregnancy terminated at 28weeks and moved for ideal management

Conclusion: Unusual occurrence of SCC of base of tongue delay diagnosis..Treatment during pregnancy is controversial. To achieve positive outcome, optimum treatment modalities have to be withheld till appropriate moment & need immediate alternatives. Multi-Disciplinary Team should focus on best immediate and long term, maternal & fetal outcome for individual case.

YOUNG GYNAECOLOGISTS AWARDS

YGA 001

Determining the effectiveness of post-operative pain management of ultrasound guided transversus abdominis plane (tap) block vs open internal tap block following abdominal hysterectomies: A randomized controlled study

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Introduction: The transversus abdominis plane block is an evolving regional anesthetic technique, provides analgesia to the skin, muscle and parietal peritoneal layers of anterior abdominal wall. Although there is no requirement of skin preparation, trained people to handle ultrasound scan machine or added cost of time in surgeon directed open technique, also has not well established in regional countries as well as in Sri Lanka. So, there is still a knowledge gap of the effectiveness of TAP block as well as new knowledge to be acquired regarding the comparison between ultrasound guided Vs open internal TAP blocks.

Objectives: To compare the effectiveness in reducing postoperative pain between ultrasound guided TAP block, open internal TAP block and without regional anesthesia among patients who undergoing abdominal hysterectomies.

Methods: Three-armed randomized controlled trial was conducted in Teaching Hospital Kandy. Patients who were scheduled and admitted for abdominal hysterectomy via supra pubic transverse incision, aged between 40-60 years were included for the study. Block randomization technique was applied to achieve the allocation concealment. Sample size was 66 individuals per each arm. Mean analgesic requirements and the analogue pain scale measurements of post-operative pain were considered as main outcome variables. Statistical calculations were done by using SPSS version 25.0. The project was ethically cleared by ethics review committee in Teaching Hospital Kandy and the project was register in Sri Lanka clinical trial registry.

Results: Mean age of the participants was 51.98 (SD=8.36). Length of the surgical incision varied from 10cm to 13cm. Majority of the surgeries were completed within less than 45 minutes (n=42:63.6%). Significant difference in the mean pain score were observed among the 3 study groups (F=15.45-12H:F=12.63-24H:F=7.67-48H). Mean Pethidine requirement of the participants who received a TAP block was significantly less than who did not receive a TAP block (F=20.71-12H:F=14.4-24H:F=10.52-48H). Analgesic requirement of the participants who received an open TAP block was less than the ultrasound guided TAP block. Total analgesic requirement of the who received a TAP block for pain relief was relatively less than the analgesic requirement of the participants who did not receive a TAP block.

Conclusions and recommendations: During abdominal hysterectomy, a significant difference was observed between the mean pain score values of patients who received a TAP block and who did not receive a TAP block as a post-operative pain relief method. During abdominal hysterectomy, a significant difference was observed between the mean pain score values of patients who received an open TAP block and who received an USS guided TAP block as a post-operative pain relief method. More detail experimental studies should be planned to achieve post-operative pain relief by administrating TAP blocks during open abdominal hysterectomy. Confirmed study findings should be productively used during revision of guidelines for post-operative clinical management. Application of TAP blocks should be compared with existing post-operative pain relief strategies. It will help to generate more cost effective strategic interventional combination for post-operative pain management during abdominal hysterectomy.

Key words: Anaelgesics, hysterectomy, TAP blocks

YGA 002

Effectiveness of diclofenac sodium as a pre-emptive analgesic for gynecological laparoscopic surgeries: A randomized control trial

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Introduction: Gynaecological laparoscopic surgeries are being widely accepted over open procedures due to its various advantages including, patient satisfaction, cosmetic benefit, quick recovery and less pain. Despite comparatively less postoperative pain as oppose to open surgeries, further minimizing pain is still achievable.

Objectives: To compare the effectiveness of using pre-emptive versus post-operative per rectal diclofenac sodium to minimize post-operative pain.

Methods: A randomized control trial was conducted among 122 patients presented to Colombo South Teaching Hospital for gynaecological laparoscopic surgeries. Interventional group received diclofenac sodium suppository pre-operatively. Control group received a placebo pre-operatively and Diclofenac sodium suppository post operatively. Sequentially numbered opaque closed envelopes were used to achieve allocation concealment. Post-operative pain was assessed by visual analogue pain scale in pre-determined time intervals after the surgery.

Results: Mean value of the time taken for the surgeries were 98.52 minutes (SD=4.98). Significantly low mean pain scores were observed from the study participants at 2-hour, 6 hour and 24-hour intervals with a p value of <.001. This significance persisted even when the study population was analysed according to length and extent of the surgery categorized as Major, Minor and Diagnostic procedures with p values of <0.05, <0.001 and <0.001 respectively. Furthermore, significantly less amount of additional analgesics was needed for participants who received diclofenac sodium pre-operatively.

Conclusions and recommendations: When diclofenac sodium suppositories were administered pre-operatively for pain relief, need of additional analgesics during the post-operative period was significantly less. Post-surgical pain score of the participants who were given pre-operative Diclofenac Sodium suppositories were significantly less than the pain score of the participants who were given post-operative Diclofenac Sodium suppositories.

Use of diclofenac sodium suppositories pre-operatively for pain relief should be promoted. Results of using pre and post-operative diclofenac Sodium suppositories should be studied more extensively in all forms of surgeries and confirmed findings should be included into the post-operative pain management guidelines of laparoscopic gynaecological surgeries

YGA 003

Intra-peritoneal bupivacaine in management of post-operative shoulder tip pain following diagnostic laparoscopic procedure: A triple blind randomized control trial

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Background: Post-operative shoulder-tip pain (STP) is a frequent complication following laparoscopy resulting in significant morbidity. This trial evaluates Intra-Peritoneal Bupivacaine (IPB) as a method of relieving post-operative STP.

Methods: Fifty-eight patients undergoing diagnostic laparoscopies were randomized to Group A (treatment) and Group B (control). Group A (n = 28) received 0.25% bupivacaine and Group B (n = 30) received an equal volume (10ml) of normal saline as an intra-peritoneal instillation in to the sub diaphragmatic space under direct vision. STP was recorded by using a visual analogue pain scale (VAS) at 0 hour, 4 hours, 8 hours of surgery, and at the time of discharge. Post-operative morbidity was assessed by additional analgesia and time taken for independent mobilisation.

Results: The incidence rate of STP in control group (B) was 70% while only 25% (7 out of 28) had reported STP in treatment Group (A), which is statistically significant ($P = 0.001$). Both severity of STP ($P = 0.004$) and post-operative additional analgesia ($P = 0.001$) were significantly higher in control group (B). Group A had an early mobilization (Mean Hours 9.43). Among the adverse effects studied, only nausea was reported higher in Group A ($P < 0.05$).

Conclusion: Per-operative intra-peritoneal instillation with bupivacaine significantly reduces both frequency and severity of STP following diagnostic laparoscopy while improving post-operative morbidity.

Key words: Shoulder tip pain, intra-peritoneal bupivacaine, laparoscopy, morbidity

YGA 004

Quality of health care during childbirth versus client perception of person-centered maternity care in Sri Lanka: Data from a baseline assessment for a quality improvement project

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Objectives: Person-centered maternity care (PCMC) refers to care during childbirth that is respectful and responsive to women's and their families' preferences, needs and values. In Sri Lanka, this remains a neglected area and no data is available on client's perspectives of care or associations between quality measures and health outcomes.

Design: Cross sectional study.

Methods: From December 18, 2018 to April 18, 2019 all women who had a normal vaginal delivery in the University unit of De Soysa Maternity Hospital, Colombo, were invited to participate. Quality of care during labour was described by the "Bologna Score", which assesses 5 objective indicators: 1) Companion during childbirth; 2) Partogram; 3) Absence of labor stimulation; 4) Childbirth in non-supine position; 5) Skin to skin contact. PCMC was assessed with a validated questionnaire developed by Afulani, including 30 items on three key domains: dignity and respect, communication and autonomy and supportive care. Each item has a four-point response scale, from 0 ("no, never") to 3 ("yes, all the time"). Tamil and Sinhala translations of Afulani's questionnaire and the Bologna score were administered the post-partum women by a trained interviewer. The total satisfaction of women was graded with 1-10 Likert scale (1- extremely dissatisfied and 10- extremely satisfied). The correlation among the Afulani, Bologna and total satisfaction scores were calculated.

Results: Four hundred women participated in this study. Overall, 92% of women had a Bologna score equal or below 3, only 8% had a score of 4, and 0% had a score 5. Specifically, 92% of labors were monitored with a partogram, and 73% of deliveries occurred in non-supine position. A low percentage of deliveries had presence of companion at the time of birth (17%), lack of stimulation (5%) and skin to skin contact of mother and the baby (41%).

The PCMC mean score was 42.4 (min 14 - max 82, versus a possible range of 0-90). For the dignity and respect domain, the mean score was 10.3 (range 1-18; possible range 0-18). For communication and autonomy the mean score was 9.3 (range 0-23; possible range 0-27). For supportive-care the mean score was 22.7 (range from 7-42, versus a possible range 0-45). The mean total satisfaction was 7.02 (min 1 max 10). Only 13% of women were extremely satisfied. A low correlation between the Bologna and PCMC scores was observed. Similarly, a low correlation between the Bologna scale and all sub scales of PCMC was detected. Moderate correlation among total satisfaction and the other scales was observed (Total PCMC $r = 0.57$, dignity $r = 0.47$, communication $r = 0.34$, supportive care $r = 0.56$, all $p < 0.01$).

Conclusions: Based on these data, all domains of PCMC and quality of care during childbirth require improvement. Results of these data will be used to identify interventions to improve the quality of health service, as well as patient's satisfaction.

YGA 005

“Translation and validation of the Childbirth Experience Questionnaire (CEQ) into Sinhala language”

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Introduction: The Childbirth Experience Questionnaire (CEQ) was initially produced to assess women’s perceptions regarding their first birth experience. A robust validated instrument to evaluate first birth experience is currently lacking in Sri Lankan obstetric practice.

Objectives: Main objectives of our study were to adapt the CEQ among Sri Lankan Sinhala speaking women and to determine the psychometric properties of CEQ. This would yield an opportunity to evaluate childbirth experience among our women.

Method: Validation study was carried out by translating the English CEQ into Sinhala language following standard methodology comprising of forward and back translation. Total of 390 postpartum women were recruited through convenience sampling method at University Unit, North Colombo Teaching Hospital, Ragama, Sri Lanka, from February 2017 to January 2018. Initially CEQ was given to be completed four weeks after delivery and again two weeks postnatal. Mothers were asked to post the completed CEQ. Face validity was tested among twenty-five postnatal mothers and with seven labour ward staff members. Psychometric properties; internal consistency and validity of the CEQ were evaluated. Known-groups validation was used for construct validity.

Results: A total of 226 (57.9%) of the recruited postnatal mothers completed the CEQ after one month postpartum. Face validity in Sri Lankan sample was demonstrated with all participants stating that CEQ was easy to understand and complete. Internal consistency was acceptable for the overall score (0.85) and for all four domains in CEQ (0.65, 0.80, 0.70, 0.83 for “own capacity”, “professional support”, “perceived safety” and “participation”, respectively). Women with spontaneous onset of labour (except for “professional support” in women with spontaneous onset of labour) and women with a normal delivery showed significantly higher CEQ scores. However, oxytocin augmentation could not yield a difference in CEQ scores. A weighted kappa of 0.61-0.80 for all 22 items in CEQ demonstrated a good test-retest reliability.

Conclusions: This study shows that Sinhala version of CEQ can be used as a reliable and valid tool of childbirth experience among Sri Lankan Sinhala speaking women.