



# SLCOG 2015

21<sup>st</sup> – 23<sup>rd</sup> August 2015

at the  
**BMICH, Colombo**

*“Empowering rightful needs of women’s health through education,  
best practices & clinical governance”*

## ABSTRACTS of Free Communications

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## **Abstracts of the SLCOG 2015**

**21st – 23rd August 2015,  
Colombo, Sri Lanka**

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## SLCOG 2015

## ABSTRACTS OF FREE COMMUNICATIONS

**OP 1: Prevalence of anaemia in pregnancy in the District General Hospital - Mullaithivu***Jayarathna Y R J, Piratheepan R**District General Hospital, Mullaithivu, Sri Lanka.*

**Objective:** To determine the prevalence of anaemia during pregnancy in women admitted to the antenatal ward in District General Hospital, Mullaithivu.

**Method:** Retrospective descriptive cross sectional study was done over two consecutive months, April and May 2015, using an interviewer administered questionnaire. All patients included in the study.

**Results:** A total of 347 pregnant women's bed head tickets included in the study. Age of the population ranged from 15 to 40 years with mean and median were 23.4 and 25 years respectively. Majority was primipara which was 41.9%. There was 8.7% of grand multipara. In the study population, 79.7% were in the third trimester. Overall anaemia prevalence was 40.9% and according to the severity; which mild, moderate and severe were 28.2%, 11.6% and 1.1% respectively. In the first, second and third trimesters, prevalence of anaemia was 21.7%, 42.9.6% and 43.8% respectively. Only two patients had severe anaemia, who were grand multipara in third trimester.

**Conclusions:** Prevalence of anaemia in women admitted to the district general hospital Mullaithivu was higher than the national and regional figures, which is most prominent in second and third trimester in mild anaemia category.

**OP 2: Weekly versus daily antenatal oral iron and folic acid supplementation in non anaemic pregnant women : a randomized controlled trial.***Senadheera D, Goonewardene M**Academic Obstetric Unit, Teaching Hospital Mahamodara, Galle, Sri Lanka.*

**Objective:** To evaluate the effectiveness of weekly versus daily antenatal oral iron and folic acid supplementation in non anaemic pregnant women, in preventing anaemia and iron deficiency during pregnancy.

**Method:** Non anaemic pregnant women (n=291) with gestations between 14 to 22 weeks, and who had been treated with mebendazole 100 mg twice a day for three days were randomly allocated to receive either 120 mg elemental iron and 3 mg of folic acid weekly (n=149) or 60 mg of elemental iron and 1 mg folic acid daily (n=142). All subjects were assessed for compliance and side effects at four weekly intervals and their Haemoglobin concentrations (Hb) Packed Cell Volumes (PCV) and Serum Ferritin levels (SF) were measured at 32 to 36 weeks of gestation.

**Results:** At the commencement of the study, there were no significant differences in monthly family income, educational level, age, parity, pre supplementation Hb, PCV and SF, and duration of previous haematinic prophylaxis between the two groups. Only 105 (74%) in the daily supplementation group and 107 (72%) in the weekly supplementation group completed the study. There were no significant differences in the mean duration

of supplementation during the study, between the two groups.

There were no significant differences in the post supplementation mean Hb, PCV and SF. An intention to treat analysis did not show any significant differences in the post supplementation risks of developing anaemia or Iron deficiency between the two groups. The side effects were significantly greater and the compliance was significantly less in the daily supplementation group compared to the weekly supplementation group.

**Conclusion:** In non anaemic pregnant women, weekly antenatal oral Iron and folic acid supplementation is not significantly different from daily antenatal oral Iron and folic acid supplementation in preventing anaemia and Iron deficiency during pregnancy.

**OP 3: Anaemia and Iron deficiency in pregnant women attending an antenatal clinic in a Teaching Hospital.***Senadheera D, Goonewardene M**Academic Obstetric Unit, Teaching Hospital Mahamodara, Galle, Sri Lanka.*

**Objective:** To determine the rate of anaemia and iron deficiency in women presenting for antenatal care and to evaluate the agreement between their Haemoglobin concentrations (Hb) and Packed Cell Volumes (PCV) obtained from two different laboratories.

**Method:** Consecutive pregnant women (n = 350), with gestations between 12 to 20 weeks, presenting for antenatal care had their Hb and PCV measured by Flow-cytometry and hydro-dynamic focusing methods using a Sysmex XS-500i System ( Laboratory A) and the Colorimetric method using an Auto Haematology Analyzer ( Laboratory B). Serum Ferritin (SF) was measured by electrochemiluminescence method using a Cobas-e411 Analyzer.

**Results:** The mean Hb in the subjects, obtained from both laboratories, was 11.6 ( 95% CI 11.4 – 11.7 ). The mean PCV too was similar (33.8%, 95 % CI 33.3 – 34.2 in Laboratory A vs 34%, 95% CI 33.6 – 34.5 in Laboratory B). There was good agreement between the Hb and PCV results obtained from the two laboratories. The rate of anemia (Hb <11 g/dl) was 16.9%, while 22% and 14.3% had SF < 25 µg/l and SF < 20 µg/l respectively.

**Conclusion:** Anaemia (16.9%) and iron deficiency (22%) are apparently of mild to moderate public health significance respectively, in women presenting for antenatal care. The Hb and PCV results obtained from two different laboratories are comparable.

**OP 4: A randomized controlled trial to compare sonographically measured cervical length with Modified Bishop Score in determining the requirement for prostaglandin administration for preinduction cervical ripening in nulliparae at term.***Kumarasiri M, Ratnasiri UDP**1 Obstetrics & Gynaecology Unit, De Soysa Hospital for Women, Colombo 08, Sri Lanka.*

**Objectives:** To compare sonographically measured cervical length with the Modified Bishop Score in determining the requirement for prostaglandin administration for preinduction cervical ripening in nulliparae at term.

**Method:** One hundred and sixty four women with singleton pregnancies at term who were planned for induction of labour were randomly allocated to receive prostaglandin for preinduction cervical ripening based on the Modified Bishop Score or sonographically measured cervical length (transvaginal). The criteria for considering the cervix as unripe and thus for using prostaglandin were either a Modified Bishop Score  $\leq 4$  or a sonographically measured cervical length  $\geq 28$ mm. The primary outcome measure was percentage of patients treated with prostaglandin for preinduction cervical ripening. Secondary outcome measures were induction success, interval to delivery and rate of cesarean section.

**Results:** While 76% of women received prostaglandin as preinduction cervical ripening agent in Modified Bishop Score group (n=82) only 37% women received prostaglandin in the cervical length measured group (n=82) ( $p < 0.001$ ). Both groups were similar in respect to gestational age, maternal demographics. The rates of induction success, cesarean sections, and the interval to active phase of labour and interval to delivery were also similar in the two groups.

**Conclusion:** The use of sonographically measured cervical length(transvaginal) is better than the use of Modified Bishop Score for assessment of cervix prior to preinduction cervical ripening with prostaglandin in nulliparae at term and by using sonographically measured cervical length for cervical assessment, we can reduce the need for prostaglandin administration significantly( $\approx 40\%$ ) without adversely affecting the outcome of induction if the cut off values used are a Modified Bishop Score of  $\leq 4$  and a sonographically measured cervical length of  $\geq 28$  mm.

### **OP 5: Assessment of the patient satisfaction of quality of services provided by ward 15 at De Soya Maternity Hospital.**

*Randeniya C, Ranwala DCS, Edirisinghe EKMP*

*Professorial Obstetrics and Gynaecology Unit, De Soya Maternity Hospital, Colombo, Sri Lanka.*

**Objective:** The patient's satisfaction regarding the quality of services provided by the ward 15 of the De Soya Maternal Hospital, Colombo in relation to the admission, antenatal care, foods and sanitation, labour room and postnatal management

**Method:** The study was a descriptive cross sectional study conducted with the voluntary participation of the 67 mothers during the time of post natal stay at the hospital during 2 months periods using a pretested self-administered questionnaire and data was analyzed with SPSS 20 version using descriptive statistics

**Results:** Majority of the patients are fully satisfied about the admission process (98.5%), antenatal care and labour room management (66.7%) of them. On whole 82.1% of the study sample was fully satisfied with the service provided by the ward, 16.4% were satisfied to some extent and 1.5% were not satisfied to some extent. Increasing the number of experienced staff, expanding the space of the ward to establish ultrasound scan facilities, a changing room, visitor's area and more spacious dining room, developing the infrastructure specially at the labour room, allow a birth companion to be present at the time of delivery and maintain the ward discipline by the visitors will help to improve the quality of care further.

**Conclusion:** Majority of the mothers are satisfied with the quality of services provided by the ward. Development of a changing room, visitor's area, spacious labour room and a dining room, establishment of the ultrasound facilities in the ward and then reassessment will enhance the quality of service further.

### **OP 6: Impact of maternal pre-pregnancy Body Mass Index and associated factors, on birth weight of the baby in De Soya Hospital for Women.**

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*<sup>2</sup>Department of Pathology, Faculty of Medicine, University of Colombo, Sri Lanka.*

**Objectives:** This study aims to describe factors associated with pre-pregnancy Body Mass Index (BMI) among primi-mothers and to describe the association between pre-pregnancy BMI and birth weight of the baby.

**Method:** A descriptive cross-sectional study was carried out at the De Soya Hospital for Women, Colombo in July and August 2013. 110 primi-mothers admitted for confinement, were recruited to the study according to the inclusion and exclusion criteria. The data was collected using an interviewer administered questionnaire. Four BMI categories were used according to the Asian BMI cut-off values to calculate the frequency percentages. One-way ANOVA and Tukey post hoc tests were used to analyse the results.

**Results:** Response rate was 100% (n=110), and contained mothers in all four BMI categories including underweight (19.1%), normal weight (36.4%), overweight (33.6%), and obese (10.9%). Underweight mothers had a significantly high number of underweight babies (47.6%;  $p=0.05$ ). Other BMI categories did not show a statistically significant association with the birth weights of the babies. There was no statistically significant association between maternal age, monthly family income, or knowledge about the concept of BMI with maternal pre-pregnancy BMI or birth weight of the baby.

**Conclusions:** Low birth weight babies were significantly high in underweight mothers. Pre-pregnancy planning and correction of maternal BMI is important for a healthy baby.

### **OP 7: Intracervicalfoley catheter for 24 hours vs three doses of oral misoprostol for preinduction cervical ripening in post dated pregnancies: a randomised controlled trial.**

*Somirathne D, Goonewardene M*

*Academic Obstetric Unit, Teaching Hospital, Mahamodara, Galle, Sri Lanka.*

**Objective:** To determine the effectiveness and safety of three doses of oral misoprostol 50micrograms given four hourly vs. insertion of an intra cervical foley catheter for 24 hours, in causing preinductioncervical ripening.

**Method:** An investigator blinded, Randomized Controlled Trial. Consecutive women (n=180 )with singleton uncomplicated pregnancies having Modified Bishop Score (MBS) $<5$ at 40weeks + 6days gestation were allocated by a stratified (primip/ multip) block randomization technique to receive either three doses of oral misoprostol 50micrograms given four hourly or the insertion of an intra cervical Foley catheter for 24 hours. The MBS was



reassessed at 41 weeks gestation and if MBS > 7, IOL was carried out with Amniotomy and intravenous oxytocin infusion. If MBS < 7, cross over therapy was carried out (intracervical Foley catheter for Misoprostol group and vaginal prostaglandin E2 for Foley group).

**Results:** At the commencement of the study there were no significant differences in parity, mean age, body mass index and MBS in between the two groups. Among the primips a greater proportion in the misoprostol group established spontaneous on set of labour (SOL) compared to the Foley group (28% vs 6%,  $p < 0.01$ ). Similarly, among the Multips a greater proportion in the misoprostol group established SOL compared to Foley group (42% vs 16%,  $p < 0.01$ ). Among the Multips the mean increase of MBS was greater ( $p < 0.05$ ) in the Misoprostol group compared to the Foley group. One primip and two Multips developed hyperstimulation after Misoprostol therapy. There were no significant differences in the other maternal and perinatal outcomes.

**Conclusion:** Compared to the insertion of an intra cervical Foley catheter for 24 hours, three doses of oral misoprostol 50 micrograms given four hourly is effective and safe for preinduction cervical ripening.

### OP 8: Noninvasive prenatal testing (NIPT) in Sri Lanka – clinical experience: 100 clinical samples

*Padeniya AGPM<sup>1,2</sup>, Dias T<sup>1,2</sup>, Rathnayake H<sup>3</sup>, Gunathilaka PK<sup>2</sup>*

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

*3: Life Plus, Battalamulla, Sri Lanka.*

**Introduction:** Noninvasive prenatal testing (NIPT) is the most advanced screening technique for the detection of fetal chromosomal aneuploidies. As of 2014, NIPT has developed to detect aneuploidies in chromosome number 13, 16, 18, 21, 22, X and Y allowing it to detect most frequently observed chromosomal aneuploidies. The aim of this study was to describe the pattern of NIPT use in Sri Lanka.

**Method:** A retrospective cohort study was carried out from June 2014 to July 2015. Sample data provided by the clinician was collected and reviewed to determine the characteristics of this patient population.

**Results:** Total of 100 maternal blood samples have been sent for NIPT from Sri Lanka. Most patients undergo NIPT testing at an average of 14 weeks, 3 days gestation; and average 36 years of age. The average risks for trisomy 21, 18 and 13 after NIPT were 1/151598, 1/939662 and 1/544316 respectively. Of the 100 samples, one sex chromosomal aneuploidy; XXY was detected following NIPT. There were no NIPT positivity reported for trisomy 13, 18 and 21.

**Conclusion:** NIPT allows women to avoid invasive procedures to confirm low sensitive screening results. However NIPT is not a diagnostic test and the abnormal results need to be confirmed by an invasive test.

### OP 9: Sri Lankan birth weight centiles and neonatal outcome.

*Dias T<sup>1</sup>, Weeraddana P.R<sup>1</sup>, Padumadasa S<sup>1</sup>, Jayawardena GRMUGP<sup>2</sup>, Gunarathna SMSG<sup>2</sup>, Kajendran J<sup>2</sup>*

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**Objective:** Analyze the adverse neonatal outcome of small for gestational age (SGA) and large for gestational age (LGA) infants with appropriate for gestational age (AGA) infants using birth centile charts that are specific to the Sri Lankan population.

**Method:** The North Colombo Obstetric database which records pregnancy data of all women delivering in the University Obstetric Unit of the North Colombo Teaching Hospital, Ragama, Sri Lanka was used to retrospectively analyze the data of 3910 women, who had live births within a duration of fourteen months from May 2014 to July 2015. All singleton live births were included in this study. Infants with birth weight less than 10th centile and more than 90th centile for gestational age were considered as SGA and LGA respectively. Infants with birth weight between 10th and 90th centile were considered as AGA. Data on neonatal complications such as rate of emergency caesarean sections, meconium, CTG abnormalities, need for ventilation and admission to NICU were assessed.

**Results:** There were 417 SGA, 2605 AGA and 888 LGA infants. The women included in this study had a mean age of 29 years (SD-5.3). One hundred and three women out of 417 women with SGA infants (24.70 %) underwent emergency caesarean section while 384 out of 2605 women with AGA infants (14.74%) underwent emergency caesarean section (OR 1.89, 95th CI 1.48 to 2.43). Cardiotocograph abnormalities and NICU admissions were significantly higher in pregnancies with SGA compared to that of AGA. (OR 2.39 and OR 3.44, 95th CI 1.76 to 3.23 and 2.57 to 4.60). However there were no significant difference in meconium and need for ventilation in the two groups. Admission to NICU were significantly higher among LGA, compare to AGA (OR 1.47, 95th CI 1.12 to 1.94). There were no significant differences in meconium, rates of emergency caesarean section, CTG abnormalities and need for ventilation between two groups.

**Conclusion:** Our study provides evidence that infants with SGA and LGA are at increased risk of neonatal morbidity. Rate of NICU admission was significantly higher in both SGA and LGA groups, while significantly higher emergency caesarean sections and CTG abnormalities were observed only within SGA group.

### OP 10: Comparison of cervical massage with membrane sweeping for pre-induction cervical ripening at term- A Randomized control trial

*S.S.Yaddehige<sup>1</sup>, H.D.Kalansooriya<sup>1</sup>, M.F.M.Rameez<sup>2</sup>.*

*1 Obstetric and gynaecology Unit, TH Mahamodara, Galle, Sri Lanka.*

*2 Obstetric and gynaecology Department, Faculty of Medicine, University of Ruhuna, Sri Lanka.*

**Introduction:** Membrane sweeping is a common method of pre induction cervical ripening method. Membrane sweeping is not possible all the time where the cervix is highly unfavorable. In such a situation cervical massage is being recommended. To compare the effectiveness of cervical massage and membrane sweeping for pre-induction cervical favorability in postdated pregnancies. 2. To evaluate the side effects of this interventions.

**Method:** A randomized controlled trial, A total of 160 singleton uncomplicated pregnant women at 40 week+4 days with cephalic presentation, with an unfavorable cervix whose Modified Bishop's Score (MBS) is less than 4 were selected. Participants were randomly assigned to cervical massage group, membrane sweeping group and control group (no intervention). The favorability of cervix for induction of labour, measured by

change in the modified bishop’s score in 48 hours of intervention. Possible complications such as rupture of membrane, intrapartum infection, postpartum infection and neonatal morbidity were also assessed.

**Results:** There were no significant differences in the mean age and MBS at recruitment in the primigravidae (primips) and multigravidae (multips) , between the three study groups. There was significant increase in mean MBS after intervention in cervical massage group ( in primips 6.4 ,95%CI 4.8-8.0 ,in multips 7.2,95% CI 6.1-8.4 ) and membrane sweeping groups(in primips and multips 7.6 ,95%CI6.2-9.0) compared to control group (in primips 5.3,95% CI 4.0-6.5,in multips 4.8, 95%CI 3.8-5.8) p=0.04 in primips and p=0.003 in multips. Adverse effects were similar in each groups except for CTG abnormalities which was reported more in control group. Other obstetric outcome and indicators for neonatal morbidity were similar in each group.

**Conclusion:** Cervical massage and membrane sweeping shows similar effect on cervical ripening.

**OP 11: Status analysis of Luteinising Hormone monitoring and supplementation in Assisted Reproductive Technologies.**

*Tillekeratne LSC, Seneviratne HR, Kaluarachchi A, Batcha M, Wijeratne S, Ranatunga I*  
Vindana Reproductive Health Centre, Sri Lanka.

**Objective:** Follicle stimulating hormone(FSH) is traditionally accepted as the main driving force for follicle development. Recently LH has emerged as another player with this regard where a window period for LH has been recognised from day 8. It’s status throughout follicle development is still undetermined. This study is a preliminary analysis to determine the events in follicle development specially referring to LH levels and supplementation in obtaining quality embryos(GQ) and pregnancies.

**Method:** A descriptive study done in a single centre with long(n=6)(LP), antagonist(n=5)(AP)and short(n=5)(SP) ART protocols using rFSH for follicle development. Prognosis for follicle development, GQ embryos and pregnancies were determined by female age, D2 FSH and antral follicle count (AFC). Follicle tracking and endometrial growth by TVS were done. LH was assessed on D5 and D8. LH was added if the levels were considered suboptimal (LH < 1.0mIU/ml, E2 < 100pg/ml per follicle).

**Results:** Good prognosis (<35Y+D2 FSH<9.9) was noted in 66.6% (LP), 60% (AP) and none in (SP). . 2/5in (SP) were discontinued from day 5 due to absent follicle recruitment.

**Conclusion:**D5 LH helped to detect the cases that were potentially deprived of LH for folliculo genesis.(LP5/6,AP2/5,SP none)with supplementation serum LH improved in LP and AP. Addition of LH in LP and AP and high levels of LH in SP helped to obtain higher numbers of oocytes and/or good quality embryos.

	LP (n = 6)	AP(n = 5)	SP(n = 5)
Mean age	32	34	39
D5LH (mean)	0.3	2.1	8.0
LH added D6	5 of 6	2 of 5	None
Day 8 LH (mean)	0.9	1.2	8.7
Improved LH	2/5treated	0/2	0
Oocytes > 10	All	N = 2	N = 1
Oocytes < 5	0	0	N = 2 (+ discontinue 2)
GQ embryos as % of Oocytes	54.28%	67.1%	85.3%
<b>Pregnancy</b>	1	3	0
<b>Comment</b>	Follicle development enhanced by adding LH from D6	Adding LH from D6 and D9 enhanced Follicle development	Oocyte number low but gave GQ embryos

## OP 12: Variation of symphysis-fundal height measurement according to the Body Mass Index.

Dias T<sup>1</sup>, Kajendran J<sup>2</sup>, Jayawardena GRMUGP<sup>2</sup>, Ranathunga Y<sup>1</sup>, Weeraddana P<sup>1</sup>, Gunathilaka P<sup>2</sup>, Prasanga G<sup>2</sup>

<sup>1</sup>Department of Obstetrics & Gynaecology, University of Kelaniya, Sri Lanka.

<sup>2</sup>Colombo North Teaching Hospital, Ragama, Sri Lanka.

**Introduction:** Accuracy of symphysis-fundal height (SFH) measurement is known to vary with the Body Mass Index (BMI). However, there is no systematic evaluation of SFH according to the BMI. The aim of this study was to study the effect of BMI on the SFH measurement.

**Method:** A retrospective study was conducted at the North Colombo Teaching Hospital, Ragama between March 2014 and June 2015. SFH measurements of normal (18.5-24.9 kgm<sup>-2</sup>), low (<18.5 kgm<sup>-2</sup>) and high (>25 kgm<sup>-2</sup>) BMI groups were extracted from the Colombo North Obstetric Database (NORCOD). The mean difference between SFH measurements in groups and their standard errors of mean (SEM) were calculated and compared for each gestational age between 24 and 40 weeks. Systematic error was assumed to exist if zero lay outside the mean difference  $\pm$  2SE.

**Results:** A total of 3962 women were included in the analysis. This included 737, 2265 and 960 women with low, normal and high BMI, respectively.

**Conclusion:** SFH measurement tends to be systematically smaller among with a low BMI while it tends to be larger among women with a high BMI, compared to those with a normal BMI. This effect of BMI on the SFH measurement should be considered at interpreting SFH measurement in clinical practice.

Week	Normal BMI versus High BMI		Normal BMI vs Low BMI	
	Estimated difference	95% CI	Estimated difference	95% CI
24	-0.45	-0.68 to -0.22	0.35	0.10 to 0.60
26	-0.49	-0.84 to -0.14	0.20	-0.11 to 0.51
28	0.28	-0.07 to 0.63	0.57	0.21 to 0.93
30	-0.35	-0.55 to -0.15	0.59	0.37 to 0.81
32	-0.23	-0.55 to 0.09	0.33	0.03 to 0.63
34	-0.47	-0.79 to -0.15	0.22	0.07 to 0.51
36	-0.66	-0.84 to -0.48	0.59	0.39 to 0.79
38	-0.87	-1.24 to -0.50	0.44	0.99 to 0.79
40	-1.07	-1.39 to -0.75	0.76	0.39 to 1.13

### **OP 13: Retrospective study on stillbirths in a tertiary care center in Colombo.**

*Udumullage HS, Samarawickrama NGCL, Senadheera DI, Jayawardane MAMM, Silva KC DP*

*Professorial Gynaecology unit, Colombo South Teaching Hospital, Sri Lanka.*

**Objective:** To calculate the stillbirth rate and to describe socio-demographic and causative factors in association with intrauterine deaths (IUD) in a tertiary care center in Colombo

**Method:** Retrospective cross-sectional study was done using patients notes, perinatal statistics and labour room birth register over period of 2 ½ years from 2013 to 2015. All the stillbirths were assessed individually to identify socio demographic data and to identify causes and potential risk factors for stillbirths. All stillbirths after 24 weeks of gestation and more than 500g were included in to the study.

**Results :** Total number of deliveries during the study period is 8302 and stillbirths are 59 adding to a rate of 7.1 and perinatal mortality rate is 10.7 per 1000 live births. 42.3% of stillbirths occur in primiparous. Most of stillbirths occurred in the age group of 20 to 35(69.4%). 59.3% of the stillbirths are with female fetuses. Causes identified at the time of perinatal deaths were Diabetes (8.4%), Hypertensive disease (8.4%), SGA (6.7%) and (69.4%) were unexplained. However when all unexplained IUDs plotted in WHO chart 45.2% fall into SGA accounting to 50.8% of total stillbirths. The commonest presentation among IUDs was reduced fetal movements (40.6%). 71.1% had no identifiable antenatal risk factor. 61% of total stillbirths occurred after 34 weeks of POA.

**Conclusion:** Stillbirth rate of 7.1 is compatible with major centers and it is slightly higher the national average. However by improving the diagnosis and management of fetal growth restriction and antenatal fetal monitoring, 50.8% of undiagnosed growth restricted babies may have been detected, and further by timely intervention > 60% of late IUDs may have been avoided. Therefore we have implemented routine ultrasound scan at 34 weeks instead of 36-37 and will review the outcome in one year's time to assess the improvement.

### **OP 14: Prediction of spontaneous preterm delivery from endocervical length change between 11-13 weeks and 18-22 weeks.**

*Deepani PJT, Perera H*

*Sri Jayawardenepura General Hospital, Nugegoda, Sri Lanka.*

**Introduction:** Preterm birth is responsible for high perinatal morbidity and mortality. Accurate prediction of preterm delivery in early pregnancy can improve the pregnancy outcome by identifying high risk group and starting early treatment. Cervical length assessment at mid trimester scan has recently been found to be an effective screening in predicting preterm delivery. However, cervical length change between first and second trimester has not been studied in predicting preterm delivery. The aim of this study was to determine the prediction of preterm delivery by cervical length assessment at 11-13 weeks and 18-22 weeks.

**Method:** This was a prospective cohort study carried out at Sri Jayawardenepura general Hospital between 2011 and 2012. Singleton pregnancies without previous history of preterm labour were recruited and transvaginal ultrasound scanning were offered at booking visit at 11-14 weeks and at 18-22 weeks to measure

the cervical length. Gestation at delivery of these recruiters was obtained from the delivery register. Receiver operating curves (ROC) were created for cervical length at 11-14 weeks, 18-22 weeks and for the difference between two measurements to determine the best predictor for prediction of preterm delivery.

**Results:** The incidence of spontaneous delivery before 37 weeks' gestation was 7.72%. The mean cervical length at 11-13 and 18-22 weeks was 38.6 and 36.3mm respectively. The cervical length at 11-13 weeks was not significantly different between those who delivered at term (3.88cm) and those who delivered preterm (3.60cm). By contrast, the cervical length at 18-22 weeks was significantly shorter in the group that had preterm deliveries (2.71cm) than in those who had term deliveries (3.70cm) (P< 0.001). The cervical shortening was more apparent in the group that delivered prematurely (from 3.60 -2.71 cm) than in which delivered at term (from 3.88-3.70cm).

**Conclusion:** Cervical length measurement used to predict preterm delivery was found to be more predictive at 18-22 weeks. Cervical length measurement at 11-13 weeks was not reliable for predicting preterm delivery. The mean cervical length tapered gradually from the first to the second scan, and the more rapid cervical shortening was found to be associated with increased risk for preterm delivery.

### **OP 15: Rate of teenage pregnancy and its outcome at a tertiary care hospital of Sri Lanka.**

*Motha MBC, Ranatunga Y, Palihawadana TS, Herath HMRP, Wijesinghe PS*

*Department of Obstetrics & Gynaecology, University of Kelaniya, Sri Lanka.*

**Introduction:** Teenage pregnancy raises many social issues as well as medical complications. Its rate varies between different populations. The recognised risks of teenage pregnancy include risk of small for gestational age (SGA), preterm labour, and risk of Caesarean section. We studied the rate of teenage pregnancy and its association with above complications in a local population.

**Method:** A study with cross sectional and retrospective study designs was done among women who delivered from May 2014 to June 2015 at the Professorial Obstetric unit of the Colombo North Teaching hospital, Ragama. Data was retrieved from the North Colombo Obstetric Database (NORCOD) to include all singleton pregnancies. An age less than 20 years at conception was considered as a teenage pregnancy. The rate of teenage pregnancies was calculated for the total population and the association with risk factors was analysed between primiparous teenage mothers (n=151) and non-teenage primiparous (n=1687) women.

**Results:** A total of 4040 deliveries were included in the analysis. The rate of teenage pregnancy was 4.2% (n=170) in this population. This included 151 in their first pregnancy and 19 who were in the second pregnancy. Consanguinity was seen in 2.64% of teenage and in 1.96% of non-teenage primigravid women. Rate of SGA was 25.83% (n=39) and 16.7% (n=283) with an OR 1.73 (95%CI 1.18-2.54), in the two groups, respectively. The rate of preterm delivery between the two groups was 7.28% (n=11) and 9.7% (n=165) with and OR 0.72(95%CI 0.39-1.36). Teenage pregnancies had a Caesarean section rate of 8%(n=13) while it was 21%(n=368) in the non-teenage pregnancies (OR 0.34; 95%CI 0.19-0.60).

**Conclusions:** This study showed the teenage pregnancy rate is low in this sub-urban population of the western province of Sri Lanka. While SGA was 1.73 times higher among them compared to non-teenage pregnancies, other known complications were not

significantly associated with teenage pregnancy in this population.

### **OP 16: Perception and Parturient experience on discrimination on race, language and religion in a sample of women admitted to professorial obstetrics unit of De Soysa Maternity Hospital.**

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*Professorial Obstetrics and Gynaecology Unit, De Soysa Maternity Hospital, Colombo, Sri Lanka.*

**Objective:** Assessment on the patient perception and experiences of discrimination depending on the race, language and religion in the society and ward and the measures to avoid those circumstances.

**Method:** Descriptive cross sectional study was carried out with the voluntary participation of 97 pregnant women admitted to the ward 15 of De Soysa Hospital during 3 months period using a self-administered questionnaire and data was analysed with descriptive statistics.

**Results:** The participants consisted of Sinhalese (55.7%), Tamil (23.7%) and Muslims (20.6%). There were Buddhists (45.4%), Catholic (15.5%), Hindu (18.6%) and Islam (20.6%) devotees. 18.5% Sinhalese, 35.3% Tamils and 17.6% Muslims perceived that they have subjected to discrimination which was reinforced by the experiences at workplaces and the wards in a positive or negative manner. Minority's (14.4%) perceptions were influenced by the ideas of the people close to them. A feeling of discomfort or inferiority to others was felt by 22% Sinhalese, 52% Tamils and 25% of Muslims due to their race, language or religion. 7.4% Sinhalese, 34.7% Tamils and 5% Muslim had experienced discrimination at police and courts, home vicinity, school, public transport or workplace in the descending order of frequency. Two Tamil and two Muslim mothers had experienced discrimination at the ward on advising and on taking consent for the surgery. They had felt sad or angry with the staff but had remained silent or had discussed the incidence with family members without confrontation. There was no significant difference ( $p=0.053$ ) in the experience of discrimination of Sinhalese versus Tamil and Muslims during their life time. The mothers suggested thinking as a nation than individual races as well as learning both the Sinhala and Tamil language and cultural values by the hospital staff would avoid the situations of discrimination.

**Conclusion:** As doctors when we get information from parturient regarding study area most of the ethnic minorities are reluctant to give frank opinion regarding specific questions. This area needs to be studied in psychological perspectives of women who are admitted for antenatal care and delivery. Further studies are needed to represent the whole island if we are going to get meaningful conclusions on this sensitive subject.

### **OP 17: Does a short inter-pregnancy interval (<2 years) increase the risk of small for gestational age? - A Sri Lankan experience.**

*Munasinghe RMRH, Chandrasiri DMDP, Ranatunga Y, Palihawadana TS, Motha MBC, Herath HMRP*

*Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Kelaniya, Sri Lanka.*

**Introduction:** The optimal inter-pregnancy interval (IPI) for a good pregnancy outcome in the subsequent pregnancy remains controversial. World Health Organization (WHO) recommends an IPI of > 2 years, while others have demonstrated conflicting evidence. We studied the association between a short IPI (<2 years) and growth abnormalities in the fetus among women who delivered

at a tertiary care hospital in the western province of Sri Lanka.

**Method:** A retrospective cohort study was carried out using data retrieved from the North Colombo Obstetrics Database (NORCOD). A total of 932 women in a singleton pregnancy, delivered after completed 36 weeks from March 2014 to May 2015 were included. IPI was calculated as the interval between the date of delivery of the preceding pregnancy and the date of conception of the index pregnancy. A short IPI was defined as an interval less than 24 months, as per WHO recommendation of optimum IPI. WHO reference values, validated for Sri Lanka, were used to categories birth weight according to gestational age.

**Results:** The rate of a short IPI among women with one previous child was 19.96% ( $n=186$ ). The rate of small for gestational age (SGA) among women with a short IPI was 16.1% ( $n/N=30/186$ ). The rate of SGA among women with an inter-pregnancy interval of more than 24 months was 15.8% ( $n/N=118/746$ ). The risk of SGA did not seem to be increased among women with a short IPI as the OR was 1.02 (95%CI 0.66-1.58).

**Conclusion:** No evidence for the existence of a significant association between short IPI and low birth weight was found in this study population. This is likely due to the fact that effects of a short IPI can be influenced by other social factors such as nutritional status of the individual, thus varying in different populations.

### **OP 18: The use of WHO reference values for birth weight in a population with a high rate of increased BMI.**

*Chandrasiri DMDP, Munasinghe RMRH, Ranatunga Y, Palihawadana TS, Motha MBC, Dias TD*

*Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Kelaniya, Sri Lanka.*

**Introduction:** The WHO defined reference values are in use to identify small for gestational age babies. These values have been validated in a Sri Lankan population and shown to be reliable. However, the reliability of such reference levels depend on the population characteristics, including the nutritional status of the index population. The objective of the study was to ascertain the reliability of WHO reference for birth weight percentiles adapted to Sri Lanka when used at a tertiary care hospital in the western province of Sri Lanka.

**Method:** A retrospective data analysis was conducted in 3403 singleton pregnancies that delivered at the Colombo North Teaching Hospital from March 2014 to May 2015. The North Colombo Obstetric Database (NORCOD) was used for data retrieval. Each birth was categorized as small for gestational age (SGA), Large for gestational age (LGA) or normal for gestational age by comparing the birth weight with the WHO defined reference birth weights for each gestation. The pre-pregnancy body mass index (BMI) of the women was used to identify women with low, high or normal BMI according to the WHO reference ranges for South Asian countries. The distributions of the birth weights for gestational age and the BMI and their correlation were analyzed.

**Results:** Among the total population, the rate of SGA was 12.69% ( $n=432$ ) while 22.10% ( $n=752$ ) were LGA. As the study population demonstrated a skewed distribution with an over-representation of LGA we looked at the distribution of the population according to pre-pregnancy BMI. The rate of mothers with a low BMI (<18.5 kgm<sup>-2</sup>) was 14.96% (509) while were normal (18.5–22.99kgm<sup>-2</sup>) and 45.93% were with a high BMI

( $\geq 23 \text{ kgm}^{-2}$ ). The risk of having a SGA baby was 2.5 times higher among women with a low BMI (OR 2.59; 95%CI 2.03-3.28) while it was 0.4 times among women with a high BMI (OR 0.42; 95%CI 0.34-0.53).

**Conclusion:** The distribution of the population according to birth weight can show deviations from a normal distribution, even with validated WHO reference levels. In populations where a large proportion of women are with an increased BMI, the presence of such deviations should be considered in using these reference values in clinical practice.

### OP 19: Reliability of symphysis-fundal height measurement among women with normal Body Mass Index (BMI).

Dias T<sup>1</sup>, Kajendran J, Gunarathna SMSG<sup>2</sup>, Ranathunga Y<sup>1</sup>, Pathmeswaran A<sup>1</sup>, Abeykoon S<sup>3</sup>, Padeniya T<sup>3</sup>

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<sup>2</sup>Colombo North Teaching Hospital, Ragama, Sri Lanka.

<sup>3</sup>District General Hospital, Ampara, Sri Lanka.

**Introduction:** Symphysis-fundus height (SFH) measurement is

the primary screening tool in detecting fetal growth abnormalities. While the effect of body mass index (BMI) on the reliability of SFH measurement is known, the influence of other factors is less clear. The objective of this study was to compare symphysis-fundal height measurement among women with a normal BMI in two different populations.

**Method:** A retrospective comparative study was performed in District General Hospital, Ampara, and Teaching Hospital, Ragama, between January 2013 and June 2015. Women with a normal BMI (18.5-24.9 kgm<sup>-2</sup>) were considered once for the measurement of SFH at gestations between 24 to 40 weeks. The mean differences between SFH measurements in two groups and their standard error of mean (SEM) were calculated for each gestational age. A systematic error was assumed to exist if zero lay outside the mean difference  $\pm 2\text{SE}$ .

**Results:** A total of 2652 women with Normal BMI were included in the data analysis. This included 2265 women from Ragama and 387 women from Ampara hospitals. Their mean SFH measurements and the estimated differences are shown below.

**Conclusions:** This study demonstrated the presence of a systematic difference of SFH measurement in these two different populations. This was in spite of both groups having women with a normal BMI. It shows the existence of other factors in different

Week	Ampara data		Ragama data		Estimated difference between the two population means Estimated 95% CI in two populations	Estimated 95% CI in two populations
	Mean	SD	Mean	SD		
24	23.7	2.9	23.6	1.9	0.1	-0.67 to 0.87
26	25.5	2.0	25.7	1.4	0.2	-8.82 to 0.42
28	26.8	1.4	28	1.7	-1.2	-2.03 to -0.37
30	28.3	3.1	29.7	1.8	-1.4	-2.33 to -0.47
32	31.7	2.1	31.7	1.6	0	-0.71 to 0.71
34	32.4	2.3	33.5	1.6	-1.1	-1.73 to -0.47
36	34.4	2.6	35.4	1.9	-1	-1.8 to -0.19
38	35.5	2.5	36.9	1.9	-1.4	-2.16 to -0.64
40	37.1	2.4	37.7	2.2	-0.6	-1.48 to 0.28

populations that can affect SFH measurement systematically.

### **OP 20: Diagnosis of gestational diabetes mellitus: How does 2-point OGTT relate to 3-point OGTT in diagnosis?**

*Palihawadana TS<sup>1</sup>, Jayawardena GRMUGP<sup>2</sup>, Gunarathna SMSG<sup>2</sup>, Ranatunga Y<sup>1</sup>, Motha MBC<sup>1</sup>, Dias TD<sup>1</sup>*

*1Colombo North Teaching Hospital, Ragama, Sri Lanka.*

*2Department of Obstetrics & Gynaecology, University of Kelaniya, Sri Lanka.*

**Introduction:** Diagnosis of gestational diabetes mellitus and its appropriate management is an important aspect of antenatal care, since is known to reduce adverse pregnancy outcome. A 2-point OGTT with plasma glucose levels measured at fasting and 2 hours after a 75g glucose load has been suggested to replace the conventional 3-point OGTT with plasma glucose estimations at fasting followed by 1 hours and 2 hours after a glucose load. We studied the relationship between the two tests in a local population.

**Method:** A retrospective data analysis was done among 572 women who underwent a late second trimester 3-point OGTT. The data was retrieved from the North Colombo Obstetric Database (NORCOD), which records data of women who delivers at the North Colombo Professorial Obstetric unit at Teaching hospital, Ragama. Their OGTT values were interpreted with the two criteria. 3-point OGTT was considered positive if fasting >95mg/dl, 1hr >180 or 2hr >153. The 2-point was considered abnormal if either fasting >100.8mg/dl or 2hr >140mg/dl. Kappa analysis was used to assess the agreement between the two tests.

**Results:** The rate of a positive OGTT was 17.5% for the 2-point test while it was 23.9% for the 3-point test. The Kappa statistic between the two tests was 0.599 ( $p < 0.001$ ). In comparison to the 3-point OGTT, the 2-point test had a sensitivity of 59% and specificity of 95%. While it had a negative predictive value of 88%, its positive predictive value was only 80%.

The risk of caesarean section was higher with a positive 3-point OGTT (OR 2.75, 95%CI 1.86-4.07) while it did not show a similar association with the 2-point OGTT (OR 1.51, 95%CI 0.97-2.35).

**Conclusion:** The use of 2-point OGTT for diagnosis of GDM will result in a lesser number of affected women in comparison to the conventional 3-point OGTT. The comparison between the two tests shows only a moderate agreement (Kappa statistic between 0.41-0.6), thus the two tests may not be interchangeable. The usefulness of the 2-point OGTT should be studied with outcome data in a local population before its routine clinical use.

### **OP 21: Audit: Outcomes of heart disease in pregnancy: An experience of a tertiary hospital**

*Perera MRL<sup>1</sup>, Nagasinghe S<sup>1</sup>, Gunasekera S<sup>1</sup>, Jayalath D<sup>2</sup>, Liyanage H<sup>2</sup>, Jayasinghe S<sup>2</sup>, Jayawardana DBIA<sup>1,2</sup>, Dodampahala SH<sup>2</sup>, Wijeyaratne CN<sup>1,2</sup>*

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*2De Soysa Maternity Hospital, Colombo, Sri Lanka*

**Introduction:** Maternal heart disease is the highest non-obstetric risk of maternal morbidity and mortality. WHO recommends auditing outcomes of severe morbidity during pregnancy to assess quality of maternal health care. Severe Maternal Outcome Ratio (SMOR) and Maternal Near-Miss Ratio (MNMR) are indicators of quality of care - higher ratios indicating better care. The

objective of this audit was to monitor outcomes of heart disease complicating pregnancy.

**Method:** Study design- Audit Sample population - Patients meeting criteria - cardiac complications requiring ITU admission/critical intervention and maternal death (MD)

Setting - DSHW ITU where data was recorded from 2008-2012

Intervention - Those receiving critical care for heart disease as deemed clinically appropriate

Outcome measures- Main: SMOR = sum of maternal death and maternal near misses (MD+MNM) per 1000 live births and MNMR= MNM cases per 1000 live births. Secondary: outcome of pregnancy, mode of delivery, birth weight and mean hospital stay

**Results:** From 2008-2012 - 304 cases were considered eligible. Congenital heart diseases occurred in 54(23%),41(23%),32(24%),19(16%)and27(20%) and valvular heart diseases 167(72%),126(71%),93(69%),84(72%) and 96(72%) respectively. Live births 204(84%),153(85%),123(89%),111(93%) and 109(78%) respectively with 3 neonatal deaths, 5 stillbirths and 6 therapeutic terminations. Vaginal delivery - 93(45%),71(46%),45(37%),50(44%) and 40(36%), assisted delivery 45(22%),32(21%),40(33%),17(15%) and 20(18%); Lower Segment Caesarean Section(LSCS) 68(33%),51(33%),37(30%),46(41%) and 52(46%) respectively. Maternal Deaths(MD) 2 in 2010; 1 in 2012. Complications: Pulmonary hypertension was the commonest followed by arrhythmias and heart failure. Hospital stay was < 5 days in majority. SMOR - 20.23, 15.61, 18.42 and 13.33; MNMR 20.23, 15.61, 17.92 and 13.33 and MNM: MD Ratios - 85:0, 70:0, 36:1, 57:0 and 71:1 respectively.

**Conclusions:** This preliminary audit indicates quality of care at a single unit's admissions to ITU. Maternal deaths are low in numbers with high MNMR that suggest high quality of care.

### **OP 22: Audit: Availability of booking visit investigation reports at an antenatal clinic in secondary care unit in Polonnaruwa district.**

*Rasanjana DPL, Prasanga DPGGM, Walisundara WMAPB*  
*General Hospital Polonnaruwa, Sri Lanka.*

**Introduction :** The antenatal period offers many opportunities to identify possible risks and targeted management of pregnancy. According to the guide lines issued by National institute for health and care excellence in 2014, certain investigations which include screening for hematological conditions, screening for infections, screening for medical conditions should be done at booking visit. With this guidance and considering the availability of resources, ministry of health - Sri Lanka had advised to do Full blood count, blood group (unexpected antibodies if necessary), VDRL and OGTT/ GCT as booking visit investigations. The objective was to assess the percentage of booking visit investigations reports available at the time of registration at hospital clinic

**Method:** Retrospective observational study carried out at General Hospital Polonnaruwa from 12/06/2015 to 19/07/2015. All pregnant women who had attended to antenatal clinic were included. Interviewer administered pretested questionnaire were used and data were collected by reviewing the antenatal record also. Data were entered and analyzed by SPSS 22.0

**Results:** Among the total of 176 pregnant women, 22 (12.5%) women were got registered at field clinic before 8 weeks of gestation, 145 (82.3%) were got registered between 8 and 10 weeks and the remaining 09 (5.2%) got registered after 10 weeks.

Dating scan was done in 17 (9.6%) women before 11 weeks, 112 (63.6%) women in between 11 – 14 weeks, 34 (19.3%) women in between 14 – 20 weeks and remaining 13 (7.3%) women after 20 weeks. 156 (88.3%) women were requested for full blood count and 122 (69.3%) were ready with the report at the time of registration at hospital clinic. Request forms were given to 143 (81.2%) women for blood group testing and only 63 (35.8%) were got the report. Blood samples were collected in 152 (88.3%) women for VDRL and reports available in 18 (10.2%). PPBS was requested in 41 (23.3%) women and either GCT or OGTT was requested in 124 (70.4%) women. Either of above report was available with 98 (55.6%) women.

**Conclusion:** Around 85% of pregnant women were given the request forms for booking visit investigations at the time of first visit to MOH clinic. But only around 55% - 60% women were ready with results at the time of hospital clinic visit. This delay could be minimized by proper advice and guidance of pregnant women. We are planning to educate field staff regarding this and further audit regarding performance is awaiting and it will improve the quality of care.

### **OP 23: Audit: Knowledge of doctors in maternity units in teaching hospitals, Sri Lanka on management of Obstetric Emergencies & Neonatal Support.**

*Samarawickrama NGCL, Jayawardana M, Epasinghe DP, Berugodaarchchi C, Warnakula N, Chandrasinghe SK*

**Introduction:** The Maternal Mortality Ratio (MMR) of Sri Lanka is 29:100,000 live births in 2013. But in developed countries MMR is a single digit. The National Confidential Enquiry in United Kingdom (2012) shows that deficiencies in the knowledge of cardiopulmonary resuscitation, decision making about CPR status, recognition of severity of illness & markers of risk among more senior doctors. Managing Obstetric Emergency and Trauma (MOET) in England & PRactical Obstetric Multi Professional Training (PROMPT) in Australia are very popular and valuable resources among doctors in those countries but lack of such in obstetric field in Sri Lanka is a major concern. The objective was to assess on the knowledge of doctors involved in obstetric care in view of managing cardiopulmonary resuscitation, Obstetric emergencies, Medical emergencies, Trauma in pregnancy & to assess the knowledge on equipment & drugs used in obstetric emergencies in a tertiary care maternal unit.

**Method:** Prospective audit which assesses the knowledge of medical officers involving maternity units in teaching hospitals in Colombo by means of a questionnaire from 2015 May to 2015 July.

**Results:** The questionnaire was distributed among 135 doctors where the responder percentage is 84 % (n=114). Overall achievement of audit standard for knowledge in obstetric emergencies, trauma & neonatal resuscitation is 13.1%. Achievement in audit standard for advanced life support is 18.5%, for advanced life support in pregnancy is 39.5%, for neonatal life support is 13.2 % & for acute obstetric emergencies & trauma is 26.3%.

**Conclusion:** The percentages of aggregate which obtained for each audit component were significantly low among majority of all skill levels of participants when compared to the audit standards. A re audit is planned carry out in future after producing

a booklet which include basic steps & knowledge in Advanced Life Support, Neonatal Life Support.

### **OP 24: Audit: Symphysis-Fundal Height (SFH) chart on antenatal follow up at DGH Polonnaruwa.**

*Prasanga DPGGM, Rasanjana DPL, Tissera WSBI*

**Introduction:** Identification of fetuses at risk of adverse perinatal outcome is an important aspect of antenatal care. Small for gestational age (SGA) is a well recognize factor with adverse perinatal outcome. SGA is diagnosed by serial growth scans. Serial growth measurements by ultra sound scan (USS) cannot be done for all pregnancies, so risk identification is used to select women to offer such close fetal surveillance. Another approach is to offer measurement of the SFH to identify those with fetal growth abnormalities. Serial measurement of SFH is recommended at each antenatal appointment from 24 weeks of gestation by Royal College of obstetricians and Gynaecologist and NICE clinical guide line on antenatal care. SFH should be plotted on a customized chart rather than population-based charts. Because of unavailability of customized growth charts, population normograms are used in many settings to identify abnormalities. Women with abnormal SFH values should be referred for ultrasonic growth assessment. They have limited sensitivity in detecting growth abnormalities. Correct estimation of SFH has specificity up to 94% and sensitivity ranging 27% to 84% for a SGA fetus. A SFH chart is available in our antenatal data sheet. Standard is to completely mark the SFH measurements at all antenatal visit from 24 weeks of gestation. The objective was to assess the standards of maintaining SFH chart at DGH, Polonnaruwa.

**Method:** Hundred antenatal records were analyzed during a period of two weeks from 29 of June to 12 of July 2015 at post natal unit, DGH Polonnaruwa. Women who delivered before 34 weeks of gestation were excluded.

**Results:** SFH completely marked (at all antenatal visits) = 70/100 (70%), Incompletely marked (in some of the visits) = 25/100 (25%) and not marked (none of the visits) = 05/100 (5%). There were 15 abnormal SFH measurements (15%). Eleven < POA and four > POA. Twelve of them were referred for Ultrasonic growth assessment = 80% (12/15). Three of it was missed = 20% (03/15) at primary care centre but detected at tertiary care centre by routine visits.

**Conclusion:** The current use of the symphysis-fundal height chart at Polonnaruwa is satisfactory (Completely marked = 70%). But it need to be improved up to 100% to achieve the standards. All the abnormal SFH measurements need to be referred to ultrasonic growth assessment for a better outcome.

### **OP 26: Case history: Bernard–Soulier syndrome in pregnancy**

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**Introduction:** Bernard–Soulier syndrome (BSS) was first described in 1948 as an autosomal recessive severe bleeding disorder characterized by a prolonged bleeding time, thrombocytopenia and extremely large platelets. The platelets lack the membrane glycoprotein Ib-IX-V complex, acts as



receptors for clotting factors and mediate platelet adhesion to the vessel wall through the von willebrand factor..

**Case:** A 28 years old woman born of a consanguineous marriage was diagnosed as having Bernard–Soulier syndrome (BSS) following family screening. She had a history of easy bruising and menorrhagia. She was in her first pregnancy. At 10 week of POA she attended to antenatal clinic tertiary care hospital and routine care were given collaboration with hematologists. She had a normal antenatal period until 38 weeks. Her platelet count was  $61 \times 10^9 /l$ . She was given one adult therapeutic dose of platelets and IV tranexamic acid 1 g at the delivery. She had a normal uncomplicated delivery with no PPH Oral tranexamic acid 500mg 8 hourly for 10 days and oral antibiotics were started. Her postpartum period was uncomplicated and she was discharged from the hospital day 7. Newborn platelet count was  $256 \times 10^9$ . Patients usually present with spontaneous bruising, epistaxis or bleeding after minor trauma. The British Committee for Standards in Haematology Guidelines recommends the use of platelet prior to invasive procedures, antifibrinolytic agents, recombinant factor VIIa and DDAVP. From the available evidence so far prophylactic platelet at the time of delivery appears the safest approach. Our limited experience suggests pregnancies in BSS can be successfully managed using platelets, tranexamic acid. Prophylactic antibiotics shown reduce the risk of secondary postpartum haemorrhage

### **OP 27: Case report: Diffuse B cell Non Hodgkin lymphoma in Pregnancy**

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**Introduction:** Non-Hodgkin's Lymphoma (NHL) rarely presents during pregnancy and estimated incidence of 0.8 cases per 100,000 women.

**Case history:** A 27 year old mother on her first pregnancy admitted at 18 weeks of gestation due to diffuse swelling of her neck. Her bio chemical investigations were normal and LDH level were elevated upto 945iu (normal 105-333iu). Imaging with USS and MRI revealed a homogeneous anterior mediastinal soft tissue mass involving the superior and right anterior mediastinum enclosing the ascending aorta, bronchus and compressing the right pulmonary artery. There was mild hepatomegaly with bilateral mild pleural effusion and paraaortic lymphadenopathy. Bone marrow biopsy showed reactive marrow. Anterior mediastinotomy and biopsy from the mass with immune histochemistry was done. PCK, CD 117, alfa FP and CD 30 negative and which exclude the possibility of thymoma, germ cell tumour or poorly differentiated carcinoma. The tumour cells diffusely and strongly expressed CD 20 with Ki67 expression more than 80% compatible with diffuse B cell Non Hodgkin lymphoma. After a multidisciplinary consensus, the patient was started on treatment with standard doses of R-CHOP regimen (rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone). She completed two cycles of chemotherapy before delivery at 32 weeks by E1/LSCS. After delivery mother completed further treatment at oncology centre. On six months follow up both mother and baby are in good condition.

**Discussion:** The diagnosis and management of hematological malignancies during pregnancy is complex and often requires a multidisciplinary team. R-CHOP is a suitable option in this

complex scenario since good outcomes for both mother and fetus can be achieved.

### **OP 28: Case report: Nutcracker syndrome: A rare cause of gross hematuria in pregnancy**

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**Introduction:** Hematuria during pregnancy could result from many causes. It causes considerable anxiety to the clinician as many serious underlying causes including abnormal placentation and significant renal pathologies could be responsible. We report a case of macroscopic haematuria during pregnancy due to a rare and relatively benign condition.

**Case history:** A primiparous woman at 31 weeks gestation was transferred from a base hospital to the tertiary care hospital for further management of gross macroscopic hematuria. This has been present since 28 weeks of gestation and had required five units of blood transfusion to maintain the haemoglobin level. She had painless hematuria persisting throughout the urinary stream and urine was negative for dysmorphic cells. The renal functions, platelet count, clotting profile and ultrasound scan of urinary tract were normal. Placenta was located well away from the lower segment. Cystoscopy revealed normal urothelium. Nutcracker syndrome was suspected as the cause of hematuria on clinical grounds. Since the pregnancy progressed normally a conservative approach was used in management. She required three more units of packed red cells transfusion to maintain Hb levels and had a vaginal delivery after spontaneous onset of labour at 37 weeks. CT angiography following delivery revealed narrowing of left renal vein due to compression between the aorta and the superior mesenteric artery, confirming our clinical suspicion.

**Discussion:** Nutcracker syndrome results due to compression of the renal vein between aorta and superior mesenteric vein due to obliteration of the angle between them. The hematuria results due to rupture of varicosities that form collaterals around the renal vein secondary to back pressure caused by renal vein obstruction. The diagnosis can be confirmed only after delivery. It usually runs a benign course and resolves after delivery. In the absence of any other abnormality, this should be suspected and a conservative approach may be followed.

### **OP 29: Case report: A quintuplet Pregnancy following in-vitro fertilization. A case report.**

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**Case history:** Our patient was a 37 year old female with primary sub fertility for 10 years. She underwent IVF at a assisted reproductive center in India where a total of 3 embryos were implanted. Quintuplet pregnancy was diagnosed at POG of 8 weeks. Selective reduction of fetuses was declined by the couple. Antenatal clinic booking was done at 8 weeks. A cervical cerclage was inserted at 13 weeks. she was admitted for inward management at 25 weeks. Patient stated to experience recurrent episodes of abdominal pain at 26 weeks of gestation. Due to the high risk of preterm delivery, 4 doses of dexamethasone (6mg each) was given. By this period one fetus showed reduced diastolic flow with an umbilical artery Pulsatility Index more than 2SD higher for the period of gestation. Every 3rd day Doppler and 2 weekly growth scans were done. At 30 weeks, discussion regarding delivery was conducted with the consultant

neonatologist and elective delivery between 31 to 32 weeks was planned. a second course of corticosteroids was given at 31 weeks. Neonatal care for all 5 fetuses were arranged at the special care baby unit of T.H. Peradeniya and babies were delivered at 31 weeks and 4 days of gestation by cesarean section. The birth weights were 1.3Kg, 1.3Kg, 1.1Kg, 1.1Kg and 932 grams. The neonatal team composed of six doctors and ten skilled nurses in order to stabilize the babies at birth. Three neonates required immediate CPAP while two required rescue surfactant therapy for respiratory distress syndrome. All five babies were started on expressed breast milk on the day one and all were on full enteral feeds by the tenth day. All the babies were discharged without any complications of prematurity at 51 days of postnatal age and the weights were between 1.9Kg and 2.9Kg.

**Discussion:** Management of the above case was challenging as there is hardly any evidence based guidance. Prematurity is responsible for the high perinatal mortality and morbidity associated with quintuplet pregnancies with a mean gestation at delivery of 28.9 weeks. Increasing morbidity and mortality with advanced gestation, the need of elective planned delivery with skilled staff and increasing maternal discomfort due to over distended uterus were the main reasons for the planned delivery between 31 to 32 weeks. Preplanned elective delivery in liaison with the paediatric team is needed for a successful outcome.

### **OP 30: Case history : Laser ablation of communicating anastomoses in a monochorionic twin pregnancy complicated by twin – twin transfusion syndrome.**

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**Introduction:** Around one-third of twin pregnancies are monochorionic, where the twins share a single placenta.

10–15% of these pregnancies are complicated with “Twin – Twin Transfusion Syndrome” (TTTS) where there is a hemodynamic imbalance resulting in chronic shunting of blood from one twin to the other. As a result the donor twin is frequently severely growth restricted while the recipient twin is usually appropriately grown. It is a major causative factor for increased fetal and neonatal mortality seen in monochorionic twins. We report a case of laser ablation of communicating anastomoses in a monochorionic twin pregnancy complicated by TTTS which was done for the 1st time in Sri Lanka.

**Case Report:** A 32 year old mother with a monochorionic diamniotic twin pregnancy was present at 26 weeks of gestation. The USS showed one twin(donor) with oligohydramnios and absent bladder and the other twin(recipient) with polyhydramnios and bladder, compatible with “stage II - Twin – twin transfusion syndrome”. Laser ablation of the communicating vessels was planned. Equator of the communicating vessels was identified ultrasonically. Fetoscope (2mm) was inserted under US guidance to the recipient sac and the communicating vessels were identified. They were ablated using laser power of 15 W, by the laser generator which was used for orthopedic surgeries. 1525.6 J of total energy was used in 30 pulses in 105 seconds. Post procedure USS revealed good fetal wellbeing. Week later she admitted in established preterm labour and the babies were delivered by an emergency cesarean section. The donor was 935 grams and the recipient was 1040 grams in weight. They were

managed in Premature Baby Unit at CNTH-Ragama.

**Discussion:** The diagnosis of TTTS is based on ultrasound evidences which are seen usually between 16 and 24 weeks and its occurrence is uncommon after 24 weeks. It is staged according to the “Quintero classification system” into five categories depending on these ultrasound findings. In view of the poor survival rates with conservative management, there is no disagreement that therapy should be offered. Treatment options are serial amnioreduction, septostomy, selective feticide and laser ablation of the communicating anastomoses. Amnioreduction is a palliative and repetitive measure whereas fetoscopic laser coagulation addresses the underlying cause of the disease through a single intervention. And complete coagulation of all visible anastomoses results in the resolution. Early detection and timely interventions are likely to improve the outcome of TTTS.

### **OP 31: Case history: Fetal survival after ruptured rudimentary horn pregnancy: A rare entity.**

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**Introduction:** A unicornuate uterus with a rudimentary horn results from incomplete development and fusion of Mullerian ducts. Rudimentary horn pregnancy is very rare. The natural history is rupture of the horn during second or third trimester associated with a high maternal mortality, morbidity and almost invariable fetal loss.

**Case Summary:** A 29 year old woman in her second pregnancy with one previous caesarean section presented with severe abdominal pain at 30 weeks of gestation. Her pregnancy was complicated with fetal growth restriction detected at 28 weeks. Her vital signs were normal initially. An emergency laparotomy was performed for a suspected ruptured uterus. A haemoperitoneum of about 2 liters was found. A live fetus within an intact amniotic sac was found free in the peritoneal cavity. A ruptured non communicating rudimentary horn identified in the left side. A fetus with an Apgar score of 7, at birth was delivered. The birth weight was 624g. He recovered after initial resuscitation and was saved with intensive care treatment. After repair of the uterus, the mother recovered with no serious morbidity.

**Discussion:** Pregnancy in a rudimentary horn has a reported incidence of 1 in 100,000 to 140,000 pregnancies. Transperitoneal migration of sperms or fertilized ovum to the contra-lateral tube is the possible mechanism. In cases of ruptured rudimentary horn it is extremely uncommon to save the baby. In this case rudimentary horn has not been documented at the previous caesarean section notes and sonography has failed to identify the pregnancy in the rudimentary horn. Adherence to basic observations at caesarean sections, documentation, and expertise in sonography with early ultrasound scanning should identify this condition before it ruptures, to prevent the associated maternal morbidity and mortality.

### **OP 32: A study on dating of the pregnancy.**

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**Introduction:** Dating of the pregnancy is one of the most important steps in the antenatal care. Incorrect dating will lead to both preterm and also post term pregnancy and may contribute heavily to increased morbidity and mortality in both mother and

fetus. Most popular and vastly used method to date the pregnancy is to calculate according to the last menstrual period (LMP). However gestational age assessment by menstrual history is not accurate because up to 40% of women are uncertain of their menstrual dates or ovulation may not exactly correspond with the mid menstrual cycle. A more accurate method of dating the pregnancy is to use the Ultra sound evidence. With USS, first trimester estimation has proven to be more accurate than the second trimester estimation. The ideal method to determine the gestational age is to measure the Crown Rump Length (CRL) and convert it in to gestational age using Robinson's formula. The ideal time to do this is between 11+0 and 13+6 weeks. Once the initial dating has been assigned, dating should not be reassigned based on subsequent scans. The aim of this study is to inquire whether the Dating scan is performed according to the standards in all antenatal patients .

**Method:** All the antenatal admissions to ward 09 Castle Street Hospital from 1st March 2015 to 31st March 2015 (n=167) were included in to the study sample. Patients who were already admitted by 1st of March and subsequent admissions during the same month were excluded. Information regarding the dating USS was obtained during the first clerking and data collection was done using the admission notes and the antenatal records. Timing of the scan and compatibility with the patient's dates were assessed. Scans done by the Radiology department, VOG, Registrar & SHOs as well as scans done by an authorized sonographer at the private sector were considered. Data were entered in to a data collection sheet and confidentially stored in an ongoing computer database. The data presented in tables and charts and was analyzed using SPSS statistical software.

**Results:** 87 (52%) out of the study sample (n=167) had a properly timed 1st trimester dating scan. However 37 (22.15%) patients did not have any sort of dating scan. 43 (25.74%) patients had a dating scan however was not done at the correct time. Dates were corrected in 10 (5.98%) according to the scan.

**Conclusion:** 130 (77.84%) patients did have a dating scan; however correct timing of the dating scan has to be achieved.

### **OP 33: Knowledge, attitudes and practices of Human Papilloma Virus (HPV), cervical cancer and cytological screening among University students.**

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**Objective:** The objective was to describe the knowledge of HPV, cervical cancer and cytological screening, as well as worry of HPV and attitudes and practices of screening among undergraduate students at Rajarata University.

**Method:** A cross-sectional study was conducted in January 2015 using a self-administrated questionnaire. Male and female undergraduates, 18 to 30 years old, from the five faculties of Rajarata University were eligible. Knowledge was assessed by the construction of a numerical sum score ranging from 0 to 13. Descriptive and bivariate statistics were used for analyses.

**Results:** 326 students answered the questionnaire that revealed limited knowledge of cervical cancer, HPV, its transmission and screening, with a mean score of 5.34 (SD 3.33). The majority of the sample were females (n=224) and single (n=321). A majority of the students stated no prior awareness of the Pap smear test (n=260) and did not know where to get one (n=253). Knowledge was higher among older, medical students in the fifth year. After performing a sensitivity analysis excluding 27-30 year old medical students in the fifth year, knowledge scores were significantly lower among students in the faculty of Management, compared to students in the Faculty of Applied sciences, Medicine and Social sciences. Knowledge scores were also higher among students in the fourth year, compared to students in other study years. Most students were uncertain about the questions in the attitude section but most did consider the Pap smear important for women's health (n=216). A majority (n=190) of students would be worried if they got infected with HPV. Screening practices were low (0.45 %). Approximately half of the women would consider cytological screening in the future.

**Conclusion:** The limited knowledge, low screening practices and high worry imply a need for awareness programs. Further research is needed in order to fully understand the delicacy of this public health threat for Sri Lankan women.

### **OP 34: A novel technique of laparoscopic sacropexy for women desiring conservative surgical management of uterine prolapse**

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**Objective:** The conservative surgical management of uterine prolapse remains a challenge. We describe a novel technique of laparoscopic sacropexy.

**Method:** Women considering conservative management options for prolapse were offered the new procedure. In laparoscopic sacropexy, repositioning of the prolapsed anatomical structures is accomplished by employing a polypropylene mesh to suspend the cervix, or the vaginal vault in the case of a vault prolapse, to the sacral promontory. Our new technique of creation of a retroperitoneal tunnel from below upwards and the avoidance of an extensive peritoneal incision were its notable differences from the standard technique of laparoscopic sacropexy. Intraoperative and postoperative complications were noted and patients followed up as part of a prospective audit.

**Results:** Of the nine women who underwent the new procedure seven had sacrohysteropexy for 2nd degree prolapse while one patient had a sacrocolpopexy for a vault prolapse. Another patient had a cervical amputation and a sacrohysteropexy for a hypertrophic elongated cervix and a first degree prolapse. The median age was 34 years [interquartile range (IQR) 29-37]. The median duration of surgery was 90 minutes [interquartile range (IQR) 80-107.5min]. The median duration of in-patient stay was 2 days. There were no intra-operative or postoperative complications. The length of follow up ranged from 10 weeks to

2 years. One patient complained of back pain which responded to analgesics. Another patient spontaneously conceived during the follow up period and had a caesarean section. There were no pelvic adhesions in this patient.

### **OP 35: Surgical morbidity associated with management of tubal ectopic pregnancy – a comparison between open and laparoscopic approach.**

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**Objective:** To compare the operation time, estimated blood loss, requirement of post-operative blood transfusion, length of hospital stay and analgesic requirements between laparoscopic and open surgical approach in tubal ectopic pregnancies

**Methods:** A retrospective cohort study. All patients who underwent surgical management for ultrasonically confirmed tubal ectopic pregnancies in CSTH from March 2014 to March 2015 were included, information was extracted from patients' records using a structured data collection sheet.

**Results:** 86 patients were surgically treated for ectopic pregnancies during this period; 44 by laparoscopy and 42 by laparotomy. 15% had salphingostomy while 81.7% underwent salphingectomy.

The average age group of the study population was between 26 years to 30 years and most (41.4%) of the women had a parity of 2 (mode). The average POA was 6.7 weeks; 15.5% had past history of ectopic pregnancy.

Duration of laparoscopic surgery was significantly less compared to open surgical approach ( $p < 0.001$ ) as well as the duration of hospital stay ( $p = 0.022$ ) and the estimated blood loss ( $p = 0.02$ ); 48.5% laparotomy patients required blood transfusions post operatively while only 14.8% of the patients who underwent laparoscopy ( $n=4$ ) required transfusions. 51.6% laparotomy patients' required stronger analgesics compared to 3.7% in the laparoscopic group.

**Conclusion:** When considering the significant reduction in duration of surgery, duration of hospital stay, estimated blood loss, requirement of post-operative blood transfusion and analgesics; laparoscopic approach has less surgical morbidity compared to open surgical approach in management of tubal ectopic pregnancy.

### **OP 36: Knowledge, attitudes and perceptions of digital vaginal examination (DVE) and associations of hesitation in consenting for DVE in gynaecology patients.**

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**Introduction:** Digital vaginal examination (DVE) is a simple, yet an important examination technique in gynaecology. But reluctance to give consent for DVE is a common event in clinical

practice. To describe knowledge, attitudes and perceptions of DVE and to analyse factors associated with hesitation in consenting for DVE in gynaecology patients of Castle Street Hospital for Women (CSHW).

**Method:** A descriptive cross sectional study was carried out among inward gynaecology patients in CSHW. Multistage systematic sampling was used to obtain the sample and data was collected using a custom designed, interviewer administered questionnaire. Knowledge, attitudes and perceptions of DVE were assessed and selected factors were cross tabulated with hesitation in consenting to analyse the significance using chi squared test.

**Results:** A total of 120 patients were assessed. 60.2% were not knowledgeable according to a score, calculated based on their responses given for questions about knowledge on DEV. Attitudinal analysis revealed followings; 37.5% had a preference to female doctors to do their DVE. 65.8% admitted that DVE was needed for their management. 44.2% considered DVE was painful. Perceptual analysis revealed followings; 55.4% of respondents were not given any information prior to obtaining consent, and whose informed were only informed partially. A chaperone had been present while 68.3% were undergoing DVE. 97% considered that maintenance of privacy was adequate. Statistically significant associations of hesitation in consenting were found with following parameters; knowledge on DVE, gender of doctor, anxiety about accuracy of DVE, detection of severe illness through DVE and adequate maintenance of privacy. Patient's age, presence of a chaperone had no significant association.

**Conclusions:** Better knowledge on DVE and ensuring adequate privacy minimises hesitation. Male doctors cause more hesitation. Patients who worry about accuracy of DVE and detection of severe illness through DVE, tend to hesitate more.

### **OP 37: Histological Analysis of endometrial biopsies done via flexible hysteroscopy in women presenting with abnormal uterine bleeding in peri and post menopausal age group – Retrospective Study**

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**Objective:** The objective of our study was to analyze the Pap smear and the histological findings of endometrial biopsies done with diagnostic flexible hysteroscopy in women with abnormal uterine bleeding in peri and post menopausal age.

**Method:** Sixty seven selected group of patients with abnormal uterine bleeding in peri and post menopausal age group who underwent diagnostic hysteroscopy between June 2013 and April 2015 as day case procedures in Gynecology day ward at Dr. Neville Fernando Teaching Hospital setting were identified and analyzed. In all patients pap smear was done using liquid based cytology and flexible hysteroscopy was performed under general anesthesia in the operating theater.

**Result:** The study involved 67 women aged between 45-81 years (mean 45-55 Years) with irregular uterine bleeding. The mean age range was 45-55 years of age (71.64%). The histological findings of endometrial biopsy revealed that 47.76% had proliferative endometrium, 11.94% had simple hyperplasia of endometrium, 11.94% had atrophic endometrium with cystic change, 11.94% had early secretory phase endometrium, 4.47% had well differentiated adenocarcinoma of the endometrium and

1.49% had poorly differentiated adenocarcinoma. The cytological analysis of Pap smear revealed that 7.46% had chronic cervicitis and 2.98% had low grade squamous intra epithelial lesion, 5.97% had squamous metaplasia and 2.98% had well differentiated squamous carcinoma of the cervix.

**Conclusion:** The incidence of endometrial and cervical malignancies was significant in women presenting with abnormal uterine bleeding around peri menopausal and post menopausal age group. Pap smear combined with Flexible hysteroscopy is a simple procedure that can be done as a day procedure which can be used to evaluate the uterine cavity and detect endometrial pathologies.

### **OP 38: Knowledge and attitudes of medical students of Faculty of Medicine University of Colombo, regarding the legal aspects of abortions in Sri Lanka.**

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**Objective:** Abortions are a public health issue, which have not got adequate attention, despite the high risks it poses to the health of women. Doctors' unawareness and ignorance has worsened its current situation. As future doctors, medical students' attitudes on abortions have practical implications in patient care. Objective of the study was to assess the knowledge and attitudes of medical students of Faculty of Medicine University of Colombo (FMUC), regarding the legal aspects of abortions in Sri Lanka.

**Method:** A descriptive cross sectional study was conducted among the 1st 2nd 3rd and 4th year medical students of the FMUC. Simple random sampling was used to select 30 students from each batch. A self-administered questionnaire was used to obtain information from the 120 study units with regard to socio-demographic characteristics, knowledge and attitudes.

**Results:** The response rate was 90%(n=108), from which 51%(n=55) were males, 77%(n=83) were Sinhalese and 72%(n=78) were Buddhists. The correct legal situation (allowed only when pregnancy threatens mother's life) was known by 50% (n=54). From correct responders 46.3%(n=25) were students who had completed the medico-legal module. The percentages who favoured abortions when mother's life is threatened, in severe abnormalities and following sexual assaults were 92.6%(n=100), 56%(n=60) and 53%(n=57) respectively. However, only 2.7%(n=3) would offer abortion as a family planning method.

**Conclusions:** Nearly half of the students had correct knowledge while most of the participants had attitudes towards a change in the current abortion law. Measures should be taken to improve the knowledge among medical students.

### **OP 39: Surgical, medical or expectant management of first trimester miscarriage and its implications on clinical and psychological outcomes –a randomized controlled trial**

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**Introduction:** Miscarriage is a common complication of early pregnancy that can have both medical and psychological consequences such as depression and anxiety. First trimester spontaneous miscarriage is managed mainly with three different

modalities including surgical evacuation, medical evacuation and expectant care with varying success rates in terms of clinical and psychological outcomes. To evaluate the clinical and psychological outcomes of surgical, medical and expectant management of first trimester spontaneous miscarriage.

**Method:** A prospective randomized controlled trial of 180 women suffering spontaneous first trimester miscarriage managed by either surgical evacuation, medical evacuation or expectant care was conducted in a Professorial Gynecological unit of National hospital of Colombo, Sri Lanka.

**Results:** Women in surgical evacuation (95.3%) had significantly higher complete miscarriage rate when compared with medical evacuation (78%) and expectant management (73%). Women who surgical evacuation had had significantly shorter duration of vaginal bleeding, but higher rate of infection. Women who had medical evacuation had significantly more gastrointestinal symptoms. Despite differences in efficacy and complication profile, there was no significant difference in satisfaction among groups. There is no significant differences in terms of psychological outcomes including depression scores and anxiety level.

**Conclusion:** Surgical management was significantly more likely to induce complete evacuation of the uterus after miscarriage than medical management. Expectant management had a variable success rate, probably depending on the type of miscarriage.

### **OP 40: Cost assessment of dilatation and curettage, it's time to move on.**

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*Professorial Gynaecology Unit, Colombo South Teaching Hospital, Sri Lanka.*

**Objective:** To estimate the direct cost for dilatation & curettage (D&C) & Hysteroscopy under general anesthesia. To describe the patient characteristics, duration of hospital stay & clinical outcome of the procedure in a tertiary care hospital in Sri Lanka.

**Method:** A retrospective cross sectional study. All patients who underwent D&C / Hysteroscopy in the professorial gynaecology unit of CSTH from Jan 2014 to Jan 2015 were included. Information was extracted from patients' records using a structured data collection sheet. Direct cost of the procedure was calculated using Step down cost accounting system for the theatre cost & direct cost of the drugs for the procedure.

**Results:** Total of 286 patients have undergone the procedure, 254 by D&C and 32 by Hysteroscopic guided biopsy. 86% were done at a causality theatre and 14% at a routine theatre. The average age of the population was 51.8 years and most (48.1%) of the women had a parity of 2 (mode). The total hospital stay of this study population was 644 patient days (average of 2.25 days per patient). 95.3% procedures yielded curettages at the procedure of which 3.3% were inadequate for histology. Malignancy was detected in 2.1%, 7.8% required further surgical interventions. Average duration of a surgery was 15.5 min, and a total of 71 hours of theatre time has been used. The commonest anesthetic drug combination used was Propofol+Fentanyl (78.1%); the direct cost for anesthetic drugs was 33 464 LKR. Total theatre cost was calculated as 2 405 214.24 LKR

**Conclusion:** The duration of hospital stay (2.25 days per patient) is unacceptable for an office procedure like D & C. The direct

cost of the procedure for 1 year alone is adequate to buy a basic outpatient hysteroscopy unit. Therefore establishment of an outpatient hysteroscopy unit seems a reasonable & cost effective option even for a low resource setting.

#### **OP 41: Study on outcome of In Vitro Fertilization (IVF) and embryo transfer using donor oocytes.**

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**Objective:** To describe the outcome of In Vitro Fertilization (IVF) and embryo transfer using donor oocytes.

**Method:** A descriptive study was carried out retrospectively with the data of 134 donor IVF cycles done from January 1999 to May 2015 in a single center. Donor embryo cycles were excluded.

**Results:** Out of the 1536 overall IVF cycles from January 1999 to May 2015, 134 IVF cycles (9%) were done using donor oocytes. The recipient age group was categorized as follows (Group 1=20-30, Group 2=31-40, Group 3= 41-50, Group 4=>51). Majority 53.7% (n=72) belonged to group 3. Advanced age of the female 61.9% (n=83), high FSH 12.7% (n=17) and premature ovarian failure 4.5% (n=6) were the main indications. Donor-recipient synchronization was done by down regulating 81% (n=109) recipients and by using natural cycles 19% (n=25). Egg sharing was done in 73(54.5%) rest were using own donors. Donor age group – divided into 4 groups (Group 1=20-30, Group 2=31-40, Group 3= 41-50, Group 4=>51). majority were from group 2(50%), From the donors 80.6% (n=108) were stimulated using the long protocol while others by antagonist protocol. In 66.6% (n=89) more than 50% of oocytes were fertilized, of them 7.5% (n=10) had all oocytes fertilized, In 7 (5.2%) none were fertilized. From all the donor cycles (47%, n=63) recipients got pregnant, 59(44%) did not get pregnant and rest 12 (9%) were abandoned. Out of the 63 pregnancies 14(22%) were twins and 2(3%) were triplets. There were 7 (11%) miscarriages, 2(03%) ectopics. The mean birth weight in donor singleton pregnancies is 2.61kg.

**Conclusion:** Donor IVF cycles using donor eggs becoming an acceptable method of fertility treatment in Sri Lanka. At present egg sharing is more popular since most are unable to find their own donor. The success rate of donor IVF cycles is comparable to success rate described in other centres in the world.

#### **OP 42: Pre-pregnancy BMI and gestational weight gain and their effects on pregnancy outcome.**

*Chandrasiri DMDP<sup>1</sup>, Munasinghe RMRH<sup>1</sup>, Palihawadana TS<sup>1</sup>, Jayawardena GRMUGP<sup>2</sup>, Gunarathna SMSG<sup>2</sup>, Motha MBC<sup>1</sup>*

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*2 Colombo North Teaching Hospital, Ragama.*

**Introduction:** Obesity during pregnancy is gaining importance globally. Obesity leads to increased pregnancy complications and the effect of gestational weight gain on these effects is not clear. We studied the relationship between pre-pregnancy BMI and gestational weight gain and how the latter modify the risks of adverse pregnancy outcome in women who enter a pregnancy

with an increase BMI.

**Method:** A retrospective data analysis was done using data of 3213 women from the North Colombo Obstetric Database (NORCOD), which includes data on all women who deliver at the Professorial Obstetric unit of the Teaching Hospital, Ragama. The first trimester weight was considered for calculation of the pre-pregnancy BMI and the gestational weight gain was calculated using the late pregnancy and the early pregnancy weights. Women were categorized according to the South Asian reference levels for BMI (<18.5kg/m<sup>2</sup>-underweight, 18.5 to 22.9-normal BMI, >23-High BMI). Gestational weight gain was categorized according to the Institute of Medicine (IoM) recommendations in normal and high BMI women. Women with a high pre-pregnancy BMI and a high weight gain (n=709) and with a high pre-pregnancy BMI and a normal weight gain (n=776) were compared against a reference group with a normal pre-pregnancy BMI and a normal weight gain (n=983).

**Results:** The rate of high pre-pregnancy BMI in this population was 46.7% and 47% among them had an excessive gestational weight gain. The gestational weight gain was highest among women with a low BMI followed by normal BMI and high BMI (11.6kg (SD4.7), 10.9(SD4.7) and 9.2(4.8); p<0.001, respectively). The risks of large for gestational age (LGA) and preeclampsia (PET) among women with a high pre-pregnancy BMI was higher with an excessive weight gain than with a normal weight gain in comparison to the reference group (for LGA OR 2.92; 95%CI 2.28-3.71 & OR 1.88; 95%CI 1.46-2.42 and for PET OR 4.72; 95%CI 2.93-7.61, & OR 2.09; 95%CI 1.24-3.53). The risk of PIH in women with a high pre-pregnancy BMI was similar between those with an excessive weight gain or a normal weight gain (OR 2.36; 95% 1.55-3.6 & OR 2.42; 95% 1.60-3.65).

**Conclusions:** The rate of high pre-pregnancy BMI is high in this population and nearly half of them achieve an excessive weight gain during their pregnancy. This study demonstrates that certain risks increase with excessive weight gain thus highlighting the importance of controlling gestational weight gain among women with a high pre-pregnancy BMI.

#### **OP 43: Tension free Vaginal Tape (TVT-O) for treatment of female stress urinary incontinence: results of a two year follow-up study.**

*Gunawardhana LDW, Ekanayake KCD, Samankumara YVAL, Kumarasiri JM*

**Objective:** TVT-O is a common surgical procedure for female stress urinary incontinence (SUI). However its efficacy and long term safety are largely unknown. We present results of a prospective audit on TVT-O for stress incontinence.

**Method:** The study was carried out at Castle Street Hospital for Women (CSHW) from March 2011 to December 2012 recruiting 51 patients with a clinical diagnoses of SUI. Patients who fulfilled inclusion and exclusion criteria underwent TVT-O. They were evaluated individually, two years after surgery, for complications, improvement of symptoms and patients satisfaction.

**Results:** Forty three patients (84.3%) were available for follow up two years after surgery. Complete cure and improvement of SUI was observed only in 29 (67.3%) and 6(13.8%) of patients respectively. Three patients (6.9%) required tape release for voiding dysfunction. There was One patient (2.3%) with mesh erosion and four (9.3%) with persistent pain in the vagina. Three (6.9%) experienced de-novo urge incontinence (6.9%). However 36 (83%) were satisfied with the procedure.

**Conclusion:** Although TVT-O is a relatively easy and cost-effective surgical treatment for female SUI, there was a high

incidence of complications with a comparatively lower long term cure rate than expected values in literature. Further long-term follow up studies evaluating the complications and health related quality of life (HRQOL), pre-operatively and post-operatively will be important to determine the role of TVT-O for SUI in Sri Lanka.

#### **OP 44: Adherence to treatment in locally advanced carcinoma uterine cervix in elderly patients.**

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**Introduction:** Elderly population is increasing worldwide. Increased life expectancy is the potential cause for elderly population and associated malignancy. It is estimated that by 2030, nearly 70% of the cancer cases would be diagnosed in adults with age 65 years or older. In India, 30,831,190 males and 33,998,613 females are in the age group of 65 years. Cervical cancer is the leading cause of death among women worldwide. In India majority of the patients present with locally advanced cervical cancer. Until NCI (National Cancer Institute) announcement in 1999 conventional treatment has been careful combination of external beam radiotherapy and intra-cavitary brachytherapy (ICBT). Current treatment guidelines recommend a combined modality approach of concurrent chemotherapy and radiotherapy (CCRT) for these tumours. Cancer care in elderly is a therapeutic challenge. Aging is associated with co-morbidities, poor tolerance, and lean body mass. Cancer care in elderly population has not been adequately addressed as these patients have often been under-represented in clinical trials of new cancer treatments and most clinical cancer trials have had arbitrary upper age limits there by resulting in paucity of data. To study the various factors affecting treatment recommendations and its adherence in elderly patients of locally advanced carcinoma uterine cervix.

**Method:** The goals of treatment in locally in elderly patients of locally advanced carcinoma uterine cervix and various factors influencing therapy was extracted from literature.

**Results:** Elderly patients with age more than 65 years often suffer from underutilization of the preferred treatment protocol leading to poor disease control and overall survival. Performance status, multiple comorbidities may be the reasons. Psychosocial issues and family care need to be addressed. Integrated community service old age home and pain palliative care services may be helpful.

**Conclusion:** There exists a certain bias in treatment recommendation to elderly patients in carcinoma cervix. Large prospective studies in this area will help in care of the elderly.

#### **OP 45: Audit: Outpatient hysteroscopy**

*Saman Kumara Y.V.A.L<sup>1</sup>, Desai A<sup>2</sup>*

*1 Teaching Hospital, Mahamodara, Galle, Sri Lanka.*

*2 New Cross Hospital, Wolverhampton, West Midlands, UK.*

**Introduction:** Post-menopausal bleeding is a common reason for gynecology referral. 10% post-menopausal bleeding is due to endometrial carcinoma. Referral to rapid access clinic for hysteroscopy is recommended in NHS UK set up. Aim of the audit was to evaluate the current practice of outpatient hysteroscopy clinic at New Cross Hospital

**Method:** All the data related to patients referred to outpatient hysteroscopy clinic from April 2013-October 2013 were retrospectively analyzed. Data collected on audit Performa prepared on Microsoft excel spread sheets.

**Results:** There were 222 patients referred to clinic for Post-menopausal bleeding (PMB). Out of that 122 patient had hysteroscopy. 92% (205) of referrals for PMB, 6% (12) of them with peri-menopausal bleeding and 2% presented with bleeding with past history of hysterectomy. Age range is 41-95 years. Most of them (43%) belonged to 50-59 age group. 50% of population had MBI >30 and 7% of them had morbid obesity. 98.6% had pelvic examination. 98% of them had ultrasound assessment for Endometrial thickness. Endometrial assessment needed on 71% out of these 6.5% had failure of getting yield of endometrial tissue. 6.3% had primary endometrial cancer. 0.97% of them had pre-cancerous lesions, Histology was normal on 90.8%. 95% seen within 2 weeks, average time taken to diagnose 23 days, average time taken to treat 64 days.

**Conclusion:** Adequate information could be obtained. Endometrial cancer risk (Non HRT 5.7-11.5) and patient waiting times in line with national figures. Endometrial thickness 3mm cut off limit not missed any endometrial cancer. Nearly 50% of ladies with PMB had hysteroscopy. Overall failure rate of hysteroscopy is 1.6%. Audit showed good documentation. Patient waiting time and endometrial cancer risk in line with national figures. So no further audit is required.

#### **OP46: A CASE REPORT: Primary Fallopian-Tube Carcinoma**

*Gunawardhana LDW, Wickramasinghe WMRPTB, Bambaranda BGIK, Karunarathna SMG*

*Sri Jayawardanapura Teaching Hospital, Kotte, Sri Lanka.*

**Introduction:** Primary Fallopian tube carcinoma (PFTC) is rare and accounts for about 0.3% of all gynecological malignancies. It, clinically and histologically, resembles surface epithelial ovarian carcinoma (SEOC). The first classical case was reported in 1886 by Orthmann. Less than 1500 cases have been reported in the literature and etiology is still unknown. It arises in postmenopausal women with a wide range of age and has a mean age of 52 years. Correct diagnosis is rarely made preoperatively. Clinically tubal carcinoma closely resembles ovarian carcinoma. Bilateral involvement occurs in about 20% of cases. PFTC has a worse prognosis than SEOC as it is not routinely suspected; therefore, treatment may be delayed.

**Case history:** 71-years-old postmenopausal woman presented with right sided lower abdominal pain for 5 days duration. Ultrasound of abdomen revealed a sausage shape mass in right tubo-ovarian region. Ascites was not present. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed, and histological findings established PFTC stage I in right fallopian tube. The patient has been followed up without further treatments. PFTC is a rare gynecologic malignancy. Therefore, histopathological confirmation is mandatory for the diagnosis and management.

#### **OP 47: Case report: Late presentation of molar pregnancy: A diagnostic and management challenge.**

*Motha MBC, Palihawadana TS, Dias TD, Wijesinghe PS.*

*Department of Obstetrics & Gynaecology, University of Kelaniya, Sri Lanka.*

**Introduction:** Hydatidiform mole often presents with vaginal bleeding in early pregnancy. In the current clinical practice with

availability of pelvic ultrasound scanning, molar pregnancies seldom progress to advance stages. We report three cases of molar pregnancy with late presentations that posed diagnostic and management challenges.

#### Case histories

1. A primigravid woman who has not had the booking presented to the gynaecology emergency services at 15 weeks of gestation with ankle oedema and moderate hypertension. On admission she was agitated, tachycardic and hypoxic. An USS was undertaken which demonstrated a molar pregnancy. She was treated for impending thyroid crisis and a suction evacuation was performed after stabilisation. The biochemistry performed on admission showed severe thyrotoxicosis confirming the diagnosis.

2. A 26-year-old unmarried girl, unaware of her pregnancy, presented to the medical ward with generalized body swelling of 2 days duration. She was found to have severe hypertension and gross proteinuria. A 20-week size uterus felt as a pelvic mass prompted a pelvic ultrasound, which revealed a molar pregnancy, confirming severe preeclampsia. Suction evacuation was done after stabilization and she had an uneventful recovery.

3. A 24-year-old woman presented to the medical ward with partial seizures. She was found hypoxic with right ventricular dilatation and moderate pulmonary hypertension. A pelvic mass was felt and the subsequent ultrasound examination revealed a molar pregnancy. A CT scan of the brain showed a left parietal lesion with surrounding oedema. A suction evacuation was undertaken. She subsequently developed disseminated intravascular coagulation (DIC) and multiorgan failure resulting in death.

**Discussion:** Hydatidiform mole occurs with an incidence of 1/714 live births. These often present in early stages and do not lead to serious complications. Late presentations are rare but can be challenging due to diagnostic difficulties and seriousness of complications such as severe preeclampsia, thyrotoxicosis and thromboembolic events. Such patients also may present to other specialities due to heterogeneity of the symptoms.

## OP 48: Case history: A Rare Case of Thoracic Endometriosis Presenting with Catamenial Hemothorax

*Jeewantha RD1, Koralage HKDK2, Ranasinghe KMIU2, Senanayake HM2*

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

**Introduction:** Thoracic endometriosis is a rare extrapelvic manifestation of endometriosis characterized by four well-recognized clinical entities, which include catamenial pneumothorax, catamenial hemothorax, catamenial hemoptysis and lung nodules.

**Case history:** We present a case of 40 year old nulliparous women who had four episodes of massive hemothorax. Symptoms of thoracic endometriosis began with a pleuritic type chest pain which started with the menstruation and outlasted it. But the diagnosis was done only after her presentation with catamenial hemothorax which happened 7 years along the line. The definitive diagnosis of TE was arrived by pleural biopsy with the aid of Video Assisted Thoracoscopy (VAT). Bronchoscopic examination was performed which was normal. Initially she was managed with Depoprovera monthly injections and her symptoms started to wean off but recur in few months. Multidisciplinary approach lead to treatment with monthly GnRh analogues, aiming to suppress hypothalamic-pituitary-gonadal axis and ensure the regression of endometrial implants. After one year of regular follow up she is free of symptoms and there was no evidence of recurrent hemothorax or chest pain.

**Discussion:** The diagnosis of this rare entity often goes unrecognized unless physicians have a high degree of suspicion and make a temporal association between patient's pulmonary symptoms and menstruation. Diagnosis can be confirmed by pathological examination and immunohistochemical staining. Management should be guided by symptom severity and patient desire to conserve future fertility.



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*Prasanga DPGGM<sup>1</sup>, Gunathilaka SNMPK<sup>1</sup>, Wasalthilaka CD<sup>1</sup>, Dias T<sup>2</sup>*

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**Introduction:** Chorioangioma of the placenta is a benign vascular tumour arising from the primitive chorionic mesenchyme. Etiology is unknown. Associations are increased maternal age, diabetes mellitus, hypertension, multiple pregnancy and female babies. Large tumours could lead to oligohydramnios, fetal growth restriction, premature delivery, toxemia, fetal anaemia, non-immune hydrops, fetal heart failure and fetal demise. Chorioangiomas act as peripheral shunts between arteries and veins leading to progressive heart failure. Prenatal diagnosis by ultrasonography and Doppler, showing highly vascular nature of the mass.

**Case history:** A 30 years old, B negative woman in her fifth pregnancy with four first trimester miscarriages presented with ultrasonic findings of well defined echogenic mass on the fetal side of the placenta measuring 9cm x 7 cm x 5cm (Figure 01), fetal cardiomegaly, pericardial effusion and middle cerebral artery (MCA) Doppler evidence of severe fetal anaemia at 24 weeks of gestation. She had uncomplicated antenatal period. Rhesus isoimmunization, placental chorioangioma or placental haematoma were the differential diagnoses. Ultrasonic evidence of increased blood flow within the placental mass favoured the diagnosis of chorioangioma. Maternal anti D antibody detection was negative. Fetal haematology revealed, O negative blood group with severe anaemia and thrombocytopenia. Fetal autoimmune thrombocytopenia excluded by negative antiplatelet antibody report. Intra uterine fetal blood transfusion done three times under the guidance of MCA peak systolic velocity. Irrespective of regular fetal surveillance and repeated intra uterine fetal blood transfusions, fetal demise occurred at 25th weeks of gestation. A female fetus was delivered vaginally with a birth weight of 740g and the placenta showed a growth on its fetal surface measuring 12cm x 10cm x 6 cm (Figure 02). Weight of the placenta was 1040 g. Subsequent pathological postmortem revealed chorioangioma with morphologically normal fetus.

**Discussion:** Large chorioangiomas are rare. Some of them are fatal. But it is not necessary that complications would always ensue. There is a place for conservative management with successful outcome. Antenatal diagnosis by ultrasound, and Doppler has been the investigation of choice in accurate diagnosis of chorioangioma. Regular follow up by serial ultrasound and Doppler aid in timely diagnosis and subsequent early interventions to improve the fetal outcome.

#### **P 02: Case history: genetic influence in cholestasis of pregnancy.**

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**Introduction:** Intrahepatic cholestasis of pregnancy (ICP) represents a rare pregnancy related disorder with potentially severe impact upon maternal and fetal prognosis. The presence of same condition in two consecutive pregnancies has raised the possibility of a genetic mechanism that can affect the process of conjugation of bile acids.

**Case history:** 36 years old mother with past two deliveries by lower segment caesarean sections. First delivery was on 2006 by EM LSCS due to lack of progression of first stage of labour and that was complicated by post-partum cardiomyopathy. Second pregnancy was on 2011 delivered by EL LSCS due to cholestasis of pregnancy at 38 weeks of POA. This episode, patient presented to the ward at 35 weeks of POA with body itching mainly palms and soles. Total bilirubin was 0.5 mg/dL, conjugated bilirubin 0.2mg/dL, AST= 133 IU/L, ALT 233 IU/L, alkaline phosphatase 365 IU/L and total bile acid level 12 mol/L. The established diagnosis was: obstetric cholestasis. At admission, the viral hepatitis markers were negative. Treatments were started with ursodeoxycholic acid and anti-histamines and EL LSCS performed at 37 weeks of POA. The newborn was a 2,800 g girl, Apgar score 10 and had a good postnatal evolution and no congenital anomalies noted. After birth, pruritus and the obstetric cholestasis symptoms disappeared. Initial liver functions were upper normal values and gradually became normal.

**Discussion:** Intrahepatic cholestasis of pregnancy is also known as pruritus gravidarum. It is frequent in Chile 21%. In the European countries, its incidence is under 1% of births excepting. The exact etiology is not known. The presence of a family history and the occurrence of intrahepatic cholestasis in the same patient suggest a hereditary factor, validated in the presence of a hormonal context. In our patient, family aggregation and the occurrence of ICP at successive pregnancies suggest a genetic factor. This suggests that the genetic anomaly of this case, which we could not investigate, has an incomplete penetrance. The risk of ICP recurrence is about 60-70% for the next pregnancy. Careful management can result better outcome of both mother and baby.

#### **P 03: A Case history: Thoracopagus conjoint twins diagnosed at 13 weeks of gestation.**

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**Introduction:** Conjoint twin is rare form of a congenital anomaly. The incidence ranges from 1 in 49,000 to 1 in 100,000 live births. The commonest type of conjoint twin is a thoracopagus type. We are reporting a case of thoracopagus type conjoint twin diagnosed at thirteen weeks of gestation by ultrasonography. Since congenital twin carries higher risk of mortality and morbidity, early identification is crucial.

**Case history:** Twenty eight years old multigravida with period of gestation 13 weeks admitted to ward with history of abdominal pain and vaginal bleeding. In early ultrasound scan done at 11 weeks of gestation she was found to have twin pregnancy with monochorionic monoamniotic twins. On admission trans-abdominal ultrasound scan performed and two fetuses with two upper limbs, two lower limbs and two heads were identified. The twins were joined at the thorax and upper abdomen. Only one fetal heart was identified. On basis of these findings, the diagnosis of thoracopagus conjoint twins was made. She delivered conjoint twins vaginally. The diagnosis of the thoracopagus conjoint twins was confirmed.

**Discussion:** Conjoint twins one of the rarest forms of twin gestation. The conjoint twins are typically classified by the point at which their bodies are fused. The most common types include thoracopagus, thoraco-omphalopagus, and omphalopagus. Other less-common types include, Cephalopagus, Syncephalus, Cephalothoracopagus, Xiphopagus, Ischiopagus, Omphalo-Ischiopagus, Pygopagus and Rachipagus twins. In thoracopagus conjoint twins, the two bodies fused from the upper thorax to lower belly. The heart is always involved in these cases. Two theories exist to explain the origins of conjoined twins. One theory is fission, in which the fertilized egg splits partially and conjoined twins represent delayed separation of the embryonic mass after day 12 of fertilization. The second theory is fusion, in which a fertilized egg completely separates, but stem cells of one twin fuse with the stem cells of the other twin. Conjoined twins share a single common chorion, placenta, and amniotic sac. Surgery to separate conjoined twins may range from very easy to very hard, depending on the point of attachment and the internal parts that are shared. Early diagnosis of the conjoint twins is crucial.

#### **P 04: A cCase history: Lower limb paralysis due to aggressive vertebral haemangioma in pregnancy**

**Bambaranda BGIK, Gunawardena LDW, Wickramasinghe R, Karunarathna SMG.**

**Introduction:** Vertebral hemangiomas are the most common primary neoplasm of spinal column and found in 10 to 12% of the population. Asymptomatic most of the time, these produce symptoms only in 1%. Pregnancy is a well-recognized risk factor for symptomatic vertebral hemangiomas with most of the time symptoms becoming apparent at third trimester.

**Case presentation:** Mrs.X, a 33 year old mother in her second pregnancy with a previous caesarean section, presented at 37 + 5 weeks of period of amenorrhoeaprogressive weakness of left lower limb for two weeks duration. She has had an uncomplicated antenatal period with a normal OGTT. On examination her fundus was more than dates with polyhydramnios and she had upper motor neuron type left sided lower limb weakness without a sensory level and impaired joint position sensation. Her admission CTG was pathological ultrasound revealed polyhydramnios, hematological parameters were normal. She underwent MRI spine after emergency caesarean section done under general anaesthesia, which revealed multiple aggressive haemangiomas of D1, D2, D7, D8, D10, D11 and L3 vertebral bodies and posterior elements with presence of prominent trabeculae. Decompression surgery was done and histology confirmed the diagnosis of vertebral haemangioma.

**Discussion:** It is postulated that vascular, hemodynamic and endocrine changes in pregnancy have a role in increasing the size of preexisting hemangioma which can cause spinal cord or nerve root compression leading to serious neurological deficits if not treated immediately. So prompt diagnosis and management is

necessary to prevent morbidity to the mother and the fetus.

#### **P 05: A case report of triplet pregnancy delivered at 40 weeks by normal vaginal delivery.**

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**Introduction:** Multiple pregnancy rates increasing in last few decades following introduction of assisted conception techniques. Other causes of multiple gestations are maternal age, race, nutrition and geography. Though the family history play a very minor role we presented a case three consecutive pregnancies of a women having multiple pregnancies including a triplet. Both maternal and fetal risk increases in multiple pregnancies and to prevent those complications advice to deliver early but time and mode of delivery depend on individual cases. The length of gestation typically decreases with each additional baby. The typical recommendation for the delivery of twins are often delivered vaginally but, triplets and higher order multiples is a cesarean section.

**Case history:** 38 years old mother with past two consecutive history of twin pregnancy presented to our clinic at POA of 23 weeks. First pregnancy was eight years back and that delivered at 39 weeks of POA vaginally as labour started spontaneously. Second pregnancy was four years back and uncomplicated twin pregnancy delivered vaginally at 39 weeks of. This pregnancy with USS, another di-chorionic di-amniotic twin pregnancy was diagnosed and routine antenatal care was given as uncomplicated other than multiple gestation. As the pregnancy progressed smoothly, we decided to continue pregnancy until term and planned vaginal delivery. At 39 weeks of POA she admitted with mild abdominal pain and she went to active labour and delivered vaginally three live normal fetuses and their birth weight was 2.2kg, 2.4kg and 2.8kg. Post-partum period was uneventful.

**Discussion:** Preterm birth is a major risk of multiple pregnancies and we should inform women that, about 75% of triplet pregnancies result in spontaneous birth before 35 weeks 0 days and continuing triplet pregnancies beyond 36 weeks 0 days increases the risk of fetal death. Women with triplet pregnancies that continuing uncomplicated triplet pregnancies beyond 36 weeks 0 days increases the risk of fetal death. Recommendation triplet pregnancies elective birth from 35 weeks 0 days, after a course of antenatal corticosteroids has been offered. Diagnosis of twin can miss in late gestation scans. Care full monitoring of fetuses can allow delivering triplet at term and decision to terminate pregnancy early by caesarean section should be considered further.

#### **P 06: A study of peri partum and post partum hysterectomy done at tertiary referral maternity hospital, Colombo- Sri Lanka**

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**Introduction:** Emergency peripartum hysterectomy (EPPH) is a life saving procedure in emergency situations such as obstetric haemorrhage when conservative medical and other surgical measures have failed. It is a very dramatic but life saving procedure which is associated with maternal morbidity and mortality. Audits on EPPH is rare in Sri Lanka.

**Methodology:** Prospective data collection was carried out from 01 June 2014 till 31 May 2015 at De Soysa Hospital for Women for all SAMM (Severe acute morbidity mortality) events. All

identified post partum hysterectomies were analysed in detail for incidence, indications, risk factors, pre operative management, surgical technique, morbidity, hospital resource utilization and outcomes as a part of the ongoing large audit.

**Results:** There were 10 peripartum hysterectomies and one post partum hysterectomy done during the study period for 7160 deliveries for a rate of 1.4 per 1000 deliveries. None were primigravida. Age median (IQR) POA was 34 years (30 –38). Median POA(IQR) was 37 weeks (36wks-40wks). There were 9 live births, 2 still births complicated by AFLP and IUGR and one neonatal death due to congenital anomalies. Commonest indication for EPPH was morbidly adherent placenta (7/11). 9 out of 11 were elective LSCS and 2 were planned vaginal deliveries. Four EPPH were done for post partum haemorrhage (3 for atonic and one trauma). All patients required intensive care. Median stay at ICU was 4 days (range 1-22 days). One patient had AFLP prior to delivery. Transfusion of packed cells was required for all patients (median of 2 packed cells with range of 1-9 packed cells) and blood products were transfused in 5 patients. Five peripartum hysterectomies were planned prior to delivery due to morbidly adherent placenta and were done with average blood loss of 660ml, average transfusion requirement of 1.6 packed cells, average ICU stay 4 days, average total hospital stay 11.4 days. Six unplanned hysterectomies were done with average blood loss of 2033ml, average transfusion requirement of 3.5 packed cells, average ICU stay 6.3 days, average total hospital stay 12 days. There were nine total and two subtotal hysterectomies. There were no maternal deaths in the study population.

**Conclusion:** A referral multidisciplinary setting with good facilities makes an impact on maternal mortality allowing complex and complicated pregnancies to be treated with relative safety. Pre planning may reduce morbidity. Regular audits in EPPH are important as it allows planning of complicated delivery for a safe obstetrics outcome.

### **P 07: An Audit on the Proportion of Babies Delivered by Elective Caesarean Section at less than 39+0 Weeks of Gestation exposed to Antenatal Corticosteroids and the Rate of the Neonatal Complications**

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**Introduction:** Caesarean section is a risk factor for the neonatal respiratory complications, respiratory distress syndrome (RDS) and transient tachypnoea. The risk is decreasing with advancing gestational age. The antenatal corticosteroids are effective in reducing other complications such as intraventricular haemorrhage, necrotizing enterocolitis, respiratory support, intensive care admissions, systemic infections, neurodevelopmental impairment and death. “Royal College of Obstetricians and Gynaecologists (RCOG) (October 2010). Green-top Guideline No. 7: Antenatal Corticosteroids to Reduce Neonatal Morbidity and Mortality” recommended that antenatal corticosteroids should be given to all women for whom an elective caesarean section (ELLSCS) is planned prior to 38+6 weeks of gestation. Elective lower segment caesarean section should normally be performed at or after 39+0 weeks of gestation to reduce respiratory morbidity. Objectives are to find out the proportion of mothers have administered corticosteroids prior to the ELLSCS and to detect the rate of the neonatal complications in ELLSCS.

**Method:** Data were collected from medical records for a period

of three months from 01st of December 2014 to 28th of February 2015 by using a pre designed Pro-forma. The gestational age was confirmed or corrected by using their dating scan. According the Green-top Guideline No.: 07, hundred percent standard would be expected regarding the administration of corticosteroids in elective caesarean section performed prior to 39+0 weeks of gestation. Results were discussed and recommendations were in an audit meeting. A re-audit was conducted in one month time.

**Results:** In the baseline audit, the medical records of 60 mothers underwent ELLSCS were analyzed. Mean age was 31.6 years (SD 4.92) and 41.7% of them were on their 2nd parity. The mean POA in which ELLSCS was done was 37+6. Majority of the LSCS (58.3%) were done between 38+1 to 39+0 weeks of POA. Past section was the most common indication (55.7%) for the ELLSCS. Antenatal corticosteroids were given only 10% of mothers. Only two babies (3.3%) not given corticosteroids, were admitted to the PBU due to grunting. Six babies (10%) developed RDS out of them five babies did not receive corticosteroids in utero. Ten out of eleven babies (18.3%) developed feeding problems, were not receive corticosteroids. Mean hospital stay was 2.65 days (SD 1.102). Only nine babies (15%) who were not exposed to corticosteroids, spent more than 3 days in hospital. In re-audit, 72 mothers underwent ELLSCS before 39+0 weeks POA were included. Fifty eight mothers (80.55%) received antenatal corticosteroids. One out of two babies (2.78%) were diagnosed RDS, 3 out of five babies (6.9%) had feeding problems, were not exposed to steroids antenatally. Apart from that 14 mothers underwent ELLSCS after completion of 39 weeks of POA.

**Conclusion:** The observed standard for the exposure to the antenatal corticosteroids for ELLSCS prior to 39+0 weeks of POA advanced after conducting this audit.

### **P 08: Analysis of Risk Factors of Gestational Diabetes Mellitus: A Case Control Study**

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**Objectives:** This study aims to identify risk factors of gestational diabetes mellitus (GDM) and describe clinical characteristics of mothers with GDM attending antenatal clinics in De Soysa Hospital for Women (DSHW).

**Methods:** A retrospective case control study was conducted with forty participants in each group. Cases were patients who were diagnosed to have GDM according to WHO criteria (Oral glucose tolerance test after 2 hours > 140 mg/dl) and controls were pregnant mothers who were not diagnosed of GDM. The information was obtained by using interviewer-administered questionnaire. Association between the exposure and the outcome was analyzed by calculating the Odds ratio and using descriptive statistics, considering, a p value of  $\leq 0.05$  as being significant.

**Results:** Mean age among the cases (29.1 years) was significantly higher than the controls (25.5 years) ( $p < 0.05$ ). The risk of GDM was significantly higher among mothers above 30 years of age. Odds ratio was 2.7 (95% CI 1.05-6.99). BMI  $\geq 23.5$  was significantly associated with GDM. Odds ratio was 3.16 (95% CI 1.26-7.94). The prevalence of GDM among mothers who had hypertension, positive family history of diabetes mellitus, past history of child with macrosomia, unexplained pregnancy loss and multiparity was higher. But the difference was not statistically

significant. ( $p > 0.05$ )

**Conclusions:** Main risk factors identified in the study population were increasing maternal age above 30 years and BMI above 23.5 kg m<sup>-2</sup>. Other factors also contribute but the contribution is not statistically significant.

### **P 09: Audit: Artificial separation of membranes (ASM) as a method of cervical ripening**

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**Objective:** ASM was implemented as a cervical ripening method and assessed the reduction of Foley and Prostaglandine (PG) induction rate for past dates pregnancies.

**Method:** Audit was conducted on past date singleton pregnancies during May and June 2015, at antenatal ward in District General Hospital – Mullaithivu. Data was collected retrospectively from patient's records to the data collection forms. Foley and PG induction rate for past date pregnancies were assessed during May 2015. ASM was offered at 40 weeks + 1 day and 40 weeks + 3 days during June 2015. When Bishop's score was  $\leq 6$  at 40 weeks + 4 days PG induction was offered. Foley was offered only those who are not suitable for PG. Success rates were calculated and reduction was compared.

**Results:** Hundred and thirty eight pregnancies were induced. None was offered Foley during the period. 48 out of 64 were undergone PG induction and rate was 75% during May. During June, 74 women were undergone ASM and 24 needed PG inductions that rate was 32.4%. Caesarean section (CS) rates in study population during May and June were 12.5% and 8.1% respectively.

**Conclusions:** With implementation of ASM, PG induction rate has been decreased by 42.6 %. The reduction in CS rate 4.4%. ASM in women with past date is an effective, simple and inexpensive method to reduce other means of induction, which will implemented for further 6 months and re-audit is planned.

### **P 10: Audit: Management of women with perceived reduced fetal movement- ward 16, DSHW**

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**Background:** Decreased fetal movements can indicate deterioration in the baby's condition. Clinical observations indicate that mothers commonly perceive an absence or reduction in the baby's movements for some days before a baby's death. For this reason, fetal movement monitoring is advised by caregivers and is used spontaneously by mothers to assess the baby's well-being. The aim was to compare the management of women presenting to ward 16 DSHM reporting reduced fetal movement (RFM) with RCOG Green-top Guideline 57, published Feb. 2011.

**Methods:** A list woman presented to ward 16 during six month period from April 2014 -Sep. 2014 with RFM was obtained from admission register. Patient notes were requested from Hospital Records department and patient data was collected using a designed audit pro-forma and analysed using statistical programs; SPSS.

**Results:** A total of 51 patients reported RFM audited during study period out of 1495 patients. The mean age of women was 29.1yrs (18yrs - 41yrs). The mean gestation of the women was 35.8 weeks, ie 35+6 weeks (28+2 – 41 weeks). Fetal presentation was cephalic, 47, 2 women had a breech and 2 was not recorded.

Twelve women (23.5%) subjected to IOL, three (5.9%) needed elective LSCS. Outcome was NVD 9 (17.60%) women, assisted vaginal delivery 6 (11.8%). Mean birth weight was 3.10kg. Twenty (39.2%) were primigravida, 31 (60.8%) multigravida. All the women were kept in hospital and an ultrasound scan arranged for 45 (88.2%) women. 46 (90.2%) were live and 5 (9.8%) were IUD. Doppler were available 15 (29.4%) women. CTG was performed in 50 (98%) only 6 (11.8%) had an abnormal CTG. All were given the kick charts.

**Conclusions:** CTG were done irrespective of gestation, however history and assessment of fetal growth by growth centiles was lacking in patient notes.

### **P 11: Case history: A rare case of morbidly adherent placenta in first pregnancy with an unscarred uterus.**

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**Introduction:** Morbidly adherent placenta occurring due to defective placentation is associated with maternal mortality and morbidity worldwide. Its increased incidence is attributed to the rising caesarean section rate recently. It is further categorized into placenta accreta, increta & percreta according to the degree of adherence and invasion of placental tissue. Here we report a case of placenta increta detected at the time of caesarean section of a primi mother with previously untouched uterus.

**Case history:** A 36 year old primigravida underwent elective caesarian section at 38 weeks of gestation due to subfertility. Following delivery of baby it was noted that the placenta was firmly adhered to posterior wall of uterus with partial myometrial invasion without serosal involvement. Piecemeal removal of placenta was done with partial excision of underneath myometrium. She developed torrential uterine bleeding during surgery and brace sutures and segmental devascularisation was performed. Despite she bled persistently and bilateral internal iliac artery ligation was done after which haemostasis was achieved and her future fertility wishes were secured with preserved uterus. She received 4 units of packed cells and frozen plasmaduring surgery. Post-operative period was unremarkable and was normal at follow-up.

**Discussion:** Previous Caesarean section especially with current placenta previa, past uterine surgery such as myomectomy, Asherman syndrome, submucosal fibroids, advanced maternal age and multiparity increase the risk of morbid adherent placenta. However its possibility cannot be entirely ruled out in any case as evident by unusual presentations like this. When it is unanticipated as in this case, catastrophic haemorrhage complicated with disseminated intravascular coagulopathy needing hysterectomy and even maternal death are more likely to happen. Immediate assistance of necessary disciplines would help to improve outcome in such events with more chance of preserving fertility.

### **P 12: Case history: A rare case of successful twin pregnancy in a patient with Panhypopituitarism**

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**Introduction:** Panhypopituitarism is a disorder characterized by inadequate production of anterior pituitary hormones. Patients may present with the symptoms of amenorrhea, poor pregnancy potential, infertility, and lactation failure. Successful pregnancy

in such patients are rare because of associated pregnancy complications such as miscarriage, anaemia, pregnancy-induced hypertension, placental abruption, premature birth, and postpartum hemorrhage.

**Case history:** We present a rare case of 35 year old mother in her 2nd pregnancy which was complicated by panhypopituitarism. At the age of 20 years she was diagnosed to have a Rathke's pouch cyst, which was surgically drained and followed by radiotherapy. Post-interventional panhypopituitarism was diagnosed which included central hypothyroidism, hypogonadotropic hypogonadism, hypocortisolism and hypoprolactinaemia requiring the need for hormone replacement. Both pregnancies were result of ovulation induction followed by intrauterine insemination. Pre pregnancy preparation with appropriate adjustments in pituitary hormones were done after clinical and biochemical evaluation. First pregnancy was a successful singleton pregnancy which was complicated with Gestational diabetes managed by dietary modifications whereas second pregnancy was a twin pregnancy complicated with gestational diabetes requiring insulin and iron deficiency anaemia. However as a result of close regular follow up and monitoring with multidisciplinary involvement she delivered two healthy babies by c-section at 37wks.

**Discussion:** Pregnancies of this group of patients need the support of assisted reproductive techniques. Ovulation induction needs high doses of gonadotropins. Preconceptional restoration of hormones, close monitoring and changing medications throughout pregnancy result in successful outcome.

### **P 13: Case history: Amelia – a rare limb anomaly**

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**Introduction:** Congenital limb defects are rare fetal anomalies with a birth prevalence of 0.55 per 1,000. Amelia is an extremely rare birth defect marked by the complete absence of one or more limbs. Amelia, defined as the complete absence of the skeletal parts of a limb, is generally thought to be a sporadic anomaly. It can present as an isolated defect or with associated malformations, particularly abdominal wall and renal anomalies. Teratogens such as thalidomide, alcohol, vascular compromise by amniotic bands or other causes, and maternal diabetes have been reported to cause this severe limb deficiency.

**Case history:** Our mother was a 30 year-old healthy primigravida who presented for her visit at 26 weeks of gestation. The father was a healthy 33 year-old man, and there was no consanguinity or relevant family history. There was no known teratogenic exposure during pregnancy. The ultrasonographic evaluation revealed absence of both upper and lower limbs, but the rest of the baby appeared normal. The couple was counseled about the poor prognosis. We waited for spontaneous labor. The mother went into spontaneous labor at 37 weeks and delivered by assisted vaginal breech delivery; a fresh stillbirth weighing 2480 grams. On clinical examination, it was associated with micrognathia, disfigured ears and undeveloped nose. All limb buds were absent. Both testes were palpable; the anus and spine were normal. (fig 01)

**Discussion:** Amelia is a rare condition with an incidence range from 0.053 to 0.095 in 10,000 live births. It was traditionally thought to be a sporadic anomaly with little risk of recurrence, or evidence of genetic origins. However, different modes of inheritance has been involved in the etiology of Amelia including autosomal recessive, X linked dominant and autosomal mode of inheritance which indicate the genetic heterogeneity of this condition. This may be isolated defect or it is often associated with major malformations in other organ systems. These frequently

include cleft lip and/or palate, body wall defects, malformed head, and defects of the neural tube, kidneys, and diaphragm. Tetramelia syndrome is a very rare autosomal recessive congenital disorder characterized by the absence of all four limbs. Other areas of the body are also affected by malformations, such as the face, skull, reproductive organs, anus and pelvis. The disorder is caused by mutations in the WNT3 (Proto-oncogene protein Wnt-3) gene. Affected infants are often stillborn or die shortly after birth. The embryonic forelimb buds appear on the 26th day and hind limb bud appears on 28th day of gestation. By 36th day the upper limb has started to differentiate into its three segments (arm, forearm and hand). In the lower limb the same process occurs shortly afterwards. By the end of the 6th week embryo has acquired a recognizable human form. The upper limb is fully formed by 12 weeks and lower limbs by 14 weeks. During this period the muscles & nerves also develop and by the 20th week, joint movement is possible. The possibility of the recurrence of amelia has been documented in only a few families. These parents were counseled for a low recurrence rate and advised to have an early anomaly scan in future pregnancies. Proper health education, antenatal screening of patients and genetic counseling of both parents can further reduce the risk of such congenital anomalies.

### **P 14: Case history: Case of hydrops fetalis**

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**Introduction:** Hydrops fetalis is the Latin word for edema of the fetus. The hallmark of the disease is the abnormal accumulation of fluid in body cavities mainly pleural, pericardial and peritoneal and soft tissues with a wall thickness of greater than 5 mm. In addition, hydrops fetalis is associated with polyhydramnios and a thickened placenta (>6 cm) in as many as 30–75% of patients. The basic problem in hydrops fetalis is an imbalance in fluid homeostasis, with more fluid accumulating than can be resorbed.

**Case history:** A 39 year old woman, Para 2, not known to be diabetic, positive Rh, no consanguinity; two children's were completely normal. She presented to the ward, at 20 weeks of POA complaining bleeding per vaginally. A careful sonographic search for congenital anomalies was done and the findings were as cystic hygroma, massive skin edema, and pleural effusion with collapsed lungs, ascites and echogenic cardiac focus. Conservative management was done as the pregnancy was viable. All basic investigations were done and all were normal. After three days being in the hospital, she developed abdominal pain and delivered a non-viable fetus with all signs of hydrops fetalis.

**Discussion:** Hydrops fetalis is characterized as non-immune if there is no indication of a fetomaternal blood group incompatibility. The incidence is approximately 1 in 2500 to 1 in 3500 neonates. One possible cause of hydrops is cystic hygromas. Cystic hygroma is one of the most common abnormalities seen sonographically in the first trimester. They are characterized by single or multiple congenital cysts of the lymphatic system most commonly found within the soft tissues of the neck. They are highly associated with chromosomal abnormalities. In fetuses with cystic hygroma in the first trimester, trisomies 21, 18, and 13 were most prevalent. In the second trimester, Turner's syndrome is most prevalent. Cystic hygromas seen in the first trimester may vary in size. Soft tissue thickening may also be present and should be considered as nuchal thickening. Almost all fetuses with cystic hygroma and hydrops die antenatally. Genetic counseling and further sonographic monitoring every 3–4 weeks



are required with these findings. This case report has highlighted the association between cystic hygroma and hydrops fetalis and need for genetic evaluation of the fetus and parents to establish or exclude aneuploidy.

### **P 15: Case history: Giant Chorioangioma of Placenta: A rare placental cause for adverse fetomaternal outcomes**

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**Introduction:** Chorioangiomas of the placenta are benign vascular tumours arising from the primitive chorionic mesenchyme with a reported incidence of 1 %.

**Case history 1:** A 24 year old woman in her second pregnancy complicated with Gestational diabetes mellitus (GDM) was diagnosed to have polyhydramnios. Obstetric sonography revealed a mixed echogenic, well circumscribed 6.4×7.4 cm size placental mass near the site of cord insertion. Fetal MRI confirmed a Chorioangioma with polyhydramnios. At 38 weeks patient underwent Caesarean section due to oblique lie and delivered a baby weighing 2450 g. Histology revealed a lesion comprised with capillary sized blood vessels seen in loose mesenchymal stroma.

**Case history 2:** A 23 year old primigravida with GDM was admitted with preterm pre labour rupture of membranes at 25 weeks of gestation. She was managed conservatively until went in to spontaneous labour at 33 weeks. A forceps delivery was performed with clinical suspicion of an intrapartum placental abruption and fresh stillborn baby delivered weighing 1350g. Placental examination revealed a solid mass which was 8×6 cm in size and histology confirmed a Chorioangioma.

**Discussion:** Clinical presentation of Chorioangiomas of the placenta is determined by its size and giant chorioangiomas (>5cm size) are associated with a high prevalence of fetal complications including fetal growth restriction, hydrops fetalis, cardiomegaly, congestive cardiac failure, anaemia, thrombocytopenia and sudden fetal death and maternal risks mainly involving polyhydramnios and preterm delivery. Although most chorioangiomas are diagnosed after the delivery, as in case 2, inquisitive sonography in suspected cases can detect chorioangiomas early and optimize the obstetric care. Early prenatal diagnosis of large chorioangiomas can minimise the fetal and maternal complications.

### **P 16: Postpartum management of Gestational Diabetes mellitus: An audit in a tertiary care hospital in Sri Lanka**

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*Castle Street Hospital for Women (CSHW), Colombo, Sri Lanka.*

**Objectives:** To audit the immediate and late postpartum management in women with Gestational diabetes mellitus (GDM).

**Methods:** An audit cycle was conducted over a period of three months at CSHW, reviewing health records and interviewing 102 women with GDM, on discharge and at 8 weeks postpartum. The SLCOG and NICE guidelines on management of diabetes in pregnancy were used as gold standards.

**Results:** Blood glucose testing had been carried out in all the neonates within 2–4 hours after birth. 92 (90.2%) women had their immediate postnatal blood glucose tested to exclude persistent

hyperglycaemia. Although 99(97.1%) women had received advice to perform a screening test at 6 weeks postpartum, only 78(76.5%) were offered testing (OGTT or FBS).

89(87.3%) women were advised on the risk of future diabetes mellitus (DM). However, only 55(53.9%) women have been reminded of the symptoms and only 15(14.7%) women were advised on screening for DM annually. 85% of women had received advice on lifestyle modifications and family planning. The risk of the newborn developing obesity, diabetes in later life and preventive measures were discussed in only 23.5%, 43.1% and 23.5%, respectively. Only 15(15.4%) women were advised on planning future pregnancies in terms of preconceptional screening for DM, proper glycaemic control and maintaining normal BMI.

**Conclusions:** Overall the adherence to audit standards relevant to late postpartum GDM management was suboptimal. An additional training on guideline recommendations, a check list to complete before discharge and a patient information leaflet were introduced. A postal reminder system was introduced as a pilot project. A re-audit has been planned in 6 month, to evaluate the improvement.

### **P 17: An audit: The maintenance and documentation of the national partogram and pain management at the labour room at District General Hospital (DGH) Matale**

*Jayakody JAGI, Panadare A, Kulasekara G*

*DGH Matale, Sri Lanka*

**Introduction:** The national partogram plays a central role in the management of labour. Accurate maintenance and documentation of partogram is the mainstay of reducing intrapartum complications in labour wards. The objective was to audit the standard of maintaining and documentation of partogram and management of pain at labour room.

**Methods:** A retrospective study was conducted, using all BHTs (155) in labour ward at DGH Matale, from 1st February to 28th February 2015. Partogram documentation of maternal details, cervical dilatation, head descent, uterine contractions, fetal heart rate, colour of liquor, action taken using partogram and management of pain in labour were assessed. Expected standard was 100%.

**Results:** Partogram was present in all 100 % (155), mothers' name, age, BHT No, parity documented 100 %, height and weight were not mentioned at all. Blood group mentioned in 93.3% (140). Cervical dilatation documented throughout the labour in 64.5%, partially documented in 19.3%. Documentation of head decent was 6.4%, uterine contraction 7.5%. Fetal heart rate documented in 77.4% throughout labour, 19.3% documented partially. Documentation of liquor colour was (6.4%). Maternal pulse rate measured in 51.6%, urine sugar, urine albumin not measured in any of mothers. Syntocinon used in 64.5% cases and dose documented only in 51.6%. Action line was drawn in 83.8% and it was crossed in 33 cases. Special risk factors were mentioned in only 50 cases. Only pethidine was used as a pain relief method and it used in few mothers 6.4 % (10 mothers) and dose was not documented at all.

**Conclusion & recommendations:** Although some components are standard (100%), most are well below the standard. The result was discussed at the audit meeting and medical officers and other staff were educated regarding the correct documentation and maintenance of partogram. As the pain relief at labour was noted to be very poor, a special programme is arranged. Follow up audit

is planned in 3 months time.

### **P18: Audit: Determination of Gestational age by Ultrasound scan**

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**Objective:** The accurate dating of pregnancy is crucial. The objectives of this study to compare the determination of gestational age by ultrasound in different gestational ages in our unit against the ISUOG Practice Guidelines: Performance of first-trimester fetal ultrasound scan. From which improve the quality and precision of determination of the gestational age.

**Methods:** A prospective audit carried out in the tertiary care centre. The dating ultrasound scan reports of 513 mothers who admitted to the ward consecutively during the period of 1st of March 2015 to 30th of April 2015 were evaluated. Data we gathered included the period of gestation that dating was done and the parameters that used to do the dating. The data were compared with the above mentioned guideline.

**Results:** Out of 513 admissions 23(4.4%) mothers did not had any kind of previous ultra sound scanning. For the determination of the gestational age, 38 (07%) mothers undergone ultrasound scan at the gestational period before 10 weeks. Three hundred and sixteen (64%) mothers undergone ultrasound scan at the period of 10 weeks to 13+6 weeks, 102(20.8%) mothers and 34 (6.9%) mothers undergone period between 14 weeks to 27+6 weeks and after 28 weeks respectively for the determination of the gestational age. Considering the parameters used to determined the gestational age, at the period of gestation less than 10 weeks were 12 (31%) used Gestational Sac diameter, 26(69%) used Crown Rump Length (CRL). For the determination of the gestational age the gestational period between 10 weeks to 13+6 weeks 268(84%) used CRL, 32(16%) used Biparietal Diameter (BPD). The period of gestation between 14 to 28 weeks for the determination of gestational age, 41(40%) used biparietal diameter, 16(16%) used head circumference, 08 (08%) used femur length, 09 (09%) used BPD+ FL, 27(27%) used BPD+ HC+AC+FL. The period of gestation after 28 weeks for the determination of the gestational age 21(62%) used BPD+HC+AC+FL, 12(35%) used BPD+FL+AC and 1(3%) used BPD+HC+AC.

**Conclusion:** There is no uniformity in the assessing gestational age by the ultra sound in the unit. Our findings were presented to the medical staff of the unit and guideline was made available in the ward. Re audit planned three months after the initial audit. To improve the quality, frequent assessments and re-audits to be carried out.

### **P19: Audit: First antenatal clinic visit in a tertiary care center**

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**Introduction:** The booking visit at the local clinic provides an opportunity to review the medical and obstetric history of the pregnant women, make a physical examination, perform appropriate investigations and refer them at the ideal time to the tertiary care center with the facilities and professional expertise

for further management. If the mothers attend the first antenatal clinic at tertiary care center between 10 to 13+6 weeks of POA with the results of their investigations, allow the specialized unit to screen them completely, perform a proper dating scan and arrange suitable antenatal care for the rest of their pregnancy. This maximizes the effective usage of the limited facilities in our setup with minimal burden on both the healthcare provider as well as the receiver. The objective of audit the period of amenorrhoea and availability of investigations at the first visit of antenatal clinic in Professorial Unit, Colombo North Teaching Hospital.

**Method:** Mothers attended the antenatal clinic for the first time during the month of May were assessed on POA (according to the LMP) and availability of results of investigations; FBC, UFR, Blood group and Rh and PPBS or OGTT. Mothers with unknown dates were excluded from the audit. First visit between 10 to 13+6 weeks of POA with availability of the results of the investigations were considered as the audit standards.

**Results:** 138 mothers referred by the MOH clinics were analyzed. 47% (66) of them presented during the period of 10 to 13+6 POA and 73% (48) of them had the results of the investigations while 27% (18) did not. 24% (33) presented before 10 weeks of POA and among them only 36% (12) had the results of the investigations while 64% (21) did not. 28% (39) mothers attended the clinic after 14 weeks. 95% (37) of them had the investigation results while only 5% (2) did not. Among the late attenders 64% (25) booked before 10 weeks at the local clinic and 76% (19) of them had undergone proper follow up in the private sector while 24% (6) did not attend despite the advices from the local unit.

**Conclusion :** Significant amount of mothers (24%) attended the antenatal clinic before 10 weeks. The results of the investigations were available only in 70% (97) of mothers in their first visit. Satisfactory results of the above could have been easily achieved by giving proper advices at local clinic level. Hence we decided to educate the health staff of the field level during the “Monthly Perinatal Mortality Meetings” on the value of dating scan & reviewing mothers with the results of the investigations at the first visit in specialized centre, between 10 to 13+6 weeks. A re-audit will be done in 6 months’ time following these educational sessions.

### **P20: Audit: How the documentation & interpretation done on Cardiotocograph (CTG) in antenatal ward at District General Hospital (DGH) Matale**

*Jayakody JAGI, Panadare A, Kulasekara G*

*DGH Matale, Sri Lanka*

**Introduction:** Cardio Toco Gram (CTG) is increasingly used in most hospitals in Sri Lanka, as an external method of monitoring of fetal heart rate and uterine contractions. Accurate documentation and interpretation are the mainstay of the CTG. The objective was to audit how effectively CTG is documented and interpreted by the medical officers and other health staff in the antenatal ward at DGH Matale.

**Methods:** A retrospective study was conducted. All the recorded CTGs selected period of one month, from 1st January to 1st February 2015. Expected standard is 100%. Documentation of name of the mother, Date & time, Bead Head Ticket (BHT) number, CTG details, Basal heart rate (BHR), Baseline variability, Accelerations/Decelerations, Comment done on CTG, Management plan and seeking senior opinion, Signature of the interpreter, Designation of the interpreter and interpretation of CTG were assessed.

**Results:** Documentation of date, time and the name of mother was present in all 100%(244), signature of interpreter was achieved in 80% (194). Maternal pulse rate not documented at all (0%). BHT number documented in 67% (164) and basal heart rate, variability, accelerations and decelerations were documented in 81% (200) and out of these, 155 CTGs were normal, 35 were suspicious and 10 were pathological. However, management plan and seeking senior opinion were not documented at all (0%) in pathological and suspicious CTGs. The final interpretation was mentioned only in 18% (45) of CTGs and signature of interpreter was documented in 80% (194).

**Conclusion :** Most of the components of CTG were documented. Except date, time and name all other indicators were below the standards. Results was produced at the audit meeting and a format, including all required components of CTG was introduced and displayed at antenatal ward. The medical officers and the other staff members were educated on correct documentation and interpretation of CTG. A re-audit is planned in 3 months time.

### **P21: Audit: Maintenance of Partogram**

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**Introduction:** Partogram is a graphical representation of the progress of labour with salient information of fetal and maternal wellbeing. In 1954, Friedman introduced the concept by graphically depicting the cervical dilatation during labour. In 1972, Philpott and Castle developed Friedman concept into a tool for monitoring of labour by adding 'Action and Alert' lines to the graph. It serves as a simple, inexpensive, tool to monitor labour in a cost effective manner specially in under resource settings. Proper maintaining of this document will ensure the continuity of the care. This plotted data allow the health care workers to identify normal from abnormal labour at a glance. Therefore the decision making is much more easier, either by direct intervention or by referring to a necessary place. This managerial tool helps to identify slow progression of labour at early stage and it helps to prevent prolonged labour. Therefore partogram is required for all women who are in labour either low or high risk group. Proper use of partogram is associated with prevention of abnormalities of labour associated complications and consequently reduction of both maternal and perinatal mortalities and morbidities. Based on the evidence reports on its effectiveness in monitoring of labour, World Health Organization advocates its use as a necessary tool in management of labour and recommends its universal use during labour. The objective was to assess the standards of maintaining partogram in labour ward, Obstetrics Professorial Unit, Colombo North Teaching Hospital, Ragama.

**Methodology:** Retrospective analysis of Fifty partograms, which were selected randomly from post natal unit during a period of two weeks from 11th of May to 24th of May 2015. Standard is 100% maintaining the components of the partogram and 100% interventions whenever necessary.

**Results:** Name, age, BHT number and blood group, 100% marked. Gravidity and parity 98% mentioned. Date and time 96% marked. There were eleven special problems ( eg: hypertensive disorders, gestational diabetes, heart disease, etc) out of that nine were marked (81%). None of that cases were specially instructed (0%). Fetal heart recording in the first stage 100%. Four patients

in this group were taken for emergency caesarean section before entering to second stage. Second stage fetal heart recording in the passive and expulsive phase was 0% (0/46). Contraction free interval and duration of contractions 98% marked. Cervicogram with alert and action line 100% plotted. Abdominal descent of the presenting part 8% mentioned, but vaginal descent 90% mentioned. Colour of the liquor 84% marked. Position of the presenting part, presence of caput and moulding 8%, 10%, 8% respectively. Maternal wellbeing monitored by pulse rate, blood pressure and temperature 92% marked. The actions were taken 66% (33/50) documented. Forty one patients had undergone cardio toco graphic examination during intra-partum period and sixteen of them were documented =39% (16/41). Twenty one women had augmentation of labour with Oxytocin. Out of that sixteen marked = 76% (16/21).

**Conclusion:** Most of the basic details were marked adequately, but documentation of special instructions and fetal heart monitoring at second stage was unacceptable. Abdominal descent of the presenting part, position, caput and moulding marking also poor. Comment of intra-partum CTG was inadequate. Other parameters of labour were documented in acceptable range but to achieve a better outcome and to maintain standards, all of these parameters need to be marked 100%.

### **P22: Audit: Reducing the rate of Caesarean Sections without compromising maternal or fetal safety - an Audit**

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**Introduction:** Worldwide caesarean section (CS) rates are estimated to vary from approximately 0.4% in Chad, is a landlocked country in Central Africa to approximately 40.5% in China with an average of approximately 15%. But in Sri Lanka is having fairly high rate of 30.6%. Globally, the increase rate of CS has been shown to be positively associated with maternity mortality and severe morbidity, even after adjusting for risk factors. In 1985 WHO recommended an optimal caesarean section rate of 10-15% and stated that there was no justification for any region of the world to have higher rates than this.

**Methods:** Women delivering at De Soysa Maternity Hospital for Women, ward number 07 between June 1st and November 30th, was included to the my study. Data was collected on maternal age, parity, gestational age, onset of labour, course of labour, level of urgency, clinical groups, indication for caesarean section, type of anesthesia, need for postoperative high dependency unit monitoring, maternal postoperative complications and perinatal outcome. The first cycle of data collection was conducted from June to November 2014, to see the baseline rate of caesarean sections. Collected data were entered in the SPSS statistical package for analysis.

**Results:** According to maternal characteristics mean age of delivering a baby is 25 years. One third of mothers were admit for first delivery (35%) and two third cases were multiparas (65%). During these six months 758 deliveries were analyzed and our caesarean section rate was 31.4%. One third of those are primary caesarean section (CS) (35%) and two third cases were repeat CS (65%). When we considering the type of CS, elective (54%) and emergency (EM) (46%) were almost equal rates. Among the causes for primary CS past dates were the leading cause. Medical and obstetric causes were occupying second and third place. Our

ward induction of labour rate was 19% and 5.1% of them ended up as failed induction. Maternal morbidities like ICU admission, postpartum hemorrhage, puerperal pyrexia, wound infection were reviewed. Perinatal morbidities like meconium aspiration, low Apgar, neonatal intensive care unit admission and perinatal deaths were reviewed. Second audit cycle will be planned following introduction of ward protocols regarding induction of labour, indication of EM CS and reweaving intra-partum fetal monitoring based on international guidelines.

**Conclusion:** Induction of labour methods we have to be revised and method of successful induction of labour also should be considered. In case of past sections counselling of the patients on VBAC and ECV may help bring down high Caesarean section rates.

### **P23: Audit: Systematic documentation of Cardiocogram**

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**Introduction:** Continuous cardiotocography is recommended to assess the fetal wellbeing in mothers with risk factors who are in labour. It is used in low risk mothers when intermittent auscultation during labour indicates possible fetal heart rate abnormalities as well. As the resources are limited we use intermittent electronic fetal monitoring (CTGs) rather than continuous together with intermittent auscultation to assess the fetal wellbeing in both, the risk mothers as well as low risk mothers lending more attention towards the risk category. Systematic documentation of CTG is mandatory to interpret it correctly in a set up where its availability is limited and additional tests such as fetal scalp blood sampling are not available. The objective was to audit the degree of systematic documentation of CTGs at labour ward in Professorial Unit, Colombo North Teaching Hospital.

**Method:** 100 CTGs were randomly selected from mothers who delivered during the month of May. Documentation of the name of the mother, BHT number, date & time, maternal pulse rate, features of the CTG (basal heart rate, variability, accelerations/ decelerations), category of the CTG (Normal, suspicious, Pathological), management plan and signature of the medical officer were analyzed. 100% documentation was considered as the audit standard.

**Results:** Name of the mother was documented in 97% (97) of CTGs but the BHT number was included only in 11% (11). Date was documented in 67% (67) and time was mentioned in 81% (81). Maternal heart rate was documented only in 5% (5) of CTGs. Documentation of the features of CTG, category of CTG and the signature of the medical officer were achieved in 100% (100). All the CTGs were interpreted correctly. Management plan was written only in 8% (8). 80% (80) CTGs were interpreted by the house officers, 13% by the registrars and 7% by the senior house officers.

**Conclusion :** The features of CTG, category of CTG and the signature were achieved in 100% as there was a printed format to be filled at the time of interpreting the CTG, which was attached to the CTG. As the printed format did not include the name, BHT number, date and time, maternal heart rate and management plan, to be filled, documentation of them were far below the standard. Therefore a new printed format was planned with all the necessary components and a re-audit will be done in 6 months' time with its

introduction.

### **P24: Case history: An uncommon case of post-partum functional bowel obstruction following vaginal delivery**

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**Introduction:** Functional bowel obstruction following child birth is an uncommon phenomenon specially after a vaginal delivery. However early identification of such patients and urgent management will prevent further complications like bowel perforation.

**Case history:** Patient's obstetrics history, examination, investigations and pertinent literature were reviewed. We described here a 32 year old female who was in her second pregnancy with a past history of caesarean delivery delivered a baby girl at a period of amenorrhoea of 40 weeks. The mother had fever during the labour and was started on intravenous antibiotics. On the following day she developed clinical features of acute intestinal obstruction. On examination her abdomen was distended with gas and there was no tenderness. She was investigated with abdominal ultrasound scan which revealed gaseous distension of the bowel with fluid in the hepato-renal pouch and gas in the portal vein. She was subsequently transferred to a surgical unit where she underwent emergency laparotomy which did not reveal obvious mechanical cause for the obstruction and gastrointestinal decompression was achieved using an enterostomy. On the day 4 of post-operative period she developed paralytic ileus then recovered gradually and was started on oral fluid on the ninth day following the surgery.

**Discussion:** Post-partum acute colonic pseudo-obstruction or Ogilvie's syndrome is a rare occurrence and in this patient most probably developed due to pelvic infection. This case opens up the significance of ascending infection during labour and how it can cause inflammation of the retroperitoneal autonomic nervous system that leads to dilatation of the bowel.

### **P25: Case history: Hypertriglyceridemia induced acute pancreatitis in pregnancy**

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**Introduction:** In normal pregnancy plasma triglyceride level increase by two to four fold because of increased triglyceride rich lipoprotein production and decreased lipoprotein lipase activity. In women with abnormal lipoprotein metabolism this can lead to severe hypertriglyceridemia (HTG) precipitating pancreatitis.

**Case history:** We report a case of HTG induced recurrent acute pancreatitis in a known patient with familial HTG and pregnancy as a triggering factor. She was admitted in the 35th week of gestation with severe upper abdominal pain which was radiating to back. She had tachycardia and low urine output. She had previous episodes of acute pancreatitis and she was on treatment. Ultrasound scan showed evidence of pancreatitis without duct dilatation. She had elevated pancreatic enzymes with severe HTG (1802 mg/dL). After stabilizing Caesarean delivery was done and found to have milky peritoneal fluid intraoperatively. Post operatively she was on dietary restriction of fat, fenofibrate, and omega-3-fatty acid. But she had persistently elevated

serum triglyceride level and pancreatic enzymes. Then she was successfully treated with therapeutic plasma exchange (TPE). Initially HTG was resistant to TPE but serum triglycerides level came back to normal after six cycles of TPE.

**Discussion:** Acute pancreatitis leads to high maternal and fetal mortality and morbidity. Complications can be minimized with early diagnosis and treatment. Serum triglyceride level more than 1000 mg/dL is a risk factor, so reduction of triglyceride level well below 1000 mg/dL effectively prevents further episodes of pancreatitis. The mainstay of treatment for this includes dietary restriction of fat, lipid lowering agents with timely application of TPE. Even though HTG induced acute pancreatitis in pregnancy is rare, it should be suspected in non-obstetric abdominal pain.

## **P26: Case history: Non immune hydrops fetalis**

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**Introduction:** The basis of Hydrops fetalis is abnormal accumulation of fluid in body cavities (pleural, pericardial and peritoneal) and soft tissues due to imbalance of fluid homeostasis. This imbalance can result from two broad categories as immune and nonimmune origin, based on presence of maternal alloimmunization.

**Case history:** A 26 year old P2C1 mother, not known to be diabetic, positive Rh, non-consanguineous, was diagnosed to have non immune hydrops fetalis at the POA of 28 weeks. An anomaly scan revealed significant scalp edema, bilateral pleural effusion with collapsed lungs, ascites, echogenic bowel and polyhydramnios. TORCH screen and maternal unexpected antibodies found to be negative. She was admitted at 32 weeks due to prelabour rupture of membranes and underwent emergency caesarian section due to evidence of chorioamnionitis. Morphological appearance of the baby was normal with a birth weight of 2085 grams but he was apnoeic and intubated. Baby expired on postpartum day one and pathological postmortem revealed bilateral pulmonary hypoplasia.

**Discussion:** Non immune hydrops accounts for 90% of cases in developed countries. Most common causes are congenital cardiac anomalies, other congenital anomalies, cardiac arrhythmias, twin to twin transfusion, aneuploidy, infections, congenital anaemia and congenital chylothorax. Hydrops fetalis carries high perinatal mortality but variability of the outcome is dependent on the underlying aetiology. There are no evidence based management guidelines for the treatment of nonimmune hydrops fetalis and management should be done at a tertiary care fetal medicine centre.

## **P27: Case history: of successful management of pituitary macro adenoma complicating pregnancy.**

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**Introduction:** Prolactin-secreting adenomas are the most commonly encountered pituitary tumours in women of childbearing age. Although the true prevalence of hyperprolactinemia is difficult to establish, it is estimated that among women presenting with reproductive disorders, approximately 15% with anovulation and 43% with anovulation and galactorrhea have hyperprolactinemia. With adequate management, most women are expected to achieve successful pregnancies; however, managing prolactinomas during

pregnancy poses a unique challenge.

**Case history:** 44 years old primi mother who was diagnosed to having pituitary macro-adenoma, multiple sclerosis and secondary hypothyroidism presented to our antenatal clinic at 28 weeks of POA. She suffered from primary subfertility for last 12 years and while investigating, hyper prolactinemia (1415) detected. MRI showed pituitary macro adenoma compressing optic chiasmia. At our first visit we assessed the mother and baby. Oral prednisolone 5mg per day and bromocriptin 2.5mg two times per day and thyroxin 100µg were started after discussed with endocrinology team. Visual field was checked and it was normal. Repeat visual assessment done at 36 POA it was also normal. We planned to deliver the patient by EL LSCS at 38 weeks of POA under hydrocortisone cover (100mg 6hourly for 24hours). Baby boy delivered with weight 2.3kg. No gross congenital anomalies noted and we withheld bromocriptine during lactation period.

**Discussion:** Managing prolactin-secreting adenomas during pregnancy several problems occur. Although the risk of tumour progression is small, it is not negligible. We obtain baseline Goldman visual field perimetry at the time of diagnosis and follow these patients every 2 months with clinical assessment and visual field perimetry during their pregnancies. New-onset headaches or visual field abnormalities should alert physicians to consider tumour enlargement and to arrange for urgent imaging of the pituitary. MRI is the preferred imaging method. If substantial tumour growth is evident, immediate reinstitution of dopamine agonist (DA) therapy is appropriate, and specialist referral is indicated. If women choose to breastfeed, an MRI scan should be done to ensure that tumour size is unchanged from baseline within 4 to 6 weeks of delivery. Outcomes with microprolactinomas can be excellent, and these small tumours can be managed safely. Macroprolactinomas, however, have a higher risk of enlarging during pregnancy, careful assessment of both mother and baby needed.

## **P28: Case history: Pheochromocytoma complicating pregnancy**

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**Introduction:** Pheochromocytoma is a neuroendocrine tumor of the medulla of adrenal gland or extra adrenal tissue. Incidence is 0.05 - 0.2%.

**Case history:** A 33 years gravida 5 para 3 transferred for further management of pheochromocytoma on her POA of 21+4. She had high fluctuating blood pressure, palpitation, sweating and dribbling (PPROM). USS found to have right sided suprarenal mass suggestive of pheochromocytoma. At TH Kandy she had high fluctuating blood pressure, urine albumin +++ and high blood sugar. She hadn't pre eclampsia symptoms. Full blood count, renal functions, ECG, liver function and 2D Echo were normal. USS 21 week growth live fetus, reduced liquor, right sided suprarenal mass (4.5 x 5cm) probably right pheochromocytoma. She managed with multidisciplinary team at HDU. Endocrinologist impression was pheochromocytoma, but needed to confirm by VMA/ CT/MRI or urinary metanephrine level. She was on phenoxybenzamine and beta blocker. Her blood sugar level was managed with soluble insulin. PPRM was managed with prophylactic antibiotics. She developed labour and after the opinion of endocrinology, anesthetic team emergency hysterotomy was done. Post operatively managed at ICU. Surgical

team planned for laparoscopic removal of adrenal tumour. She transferred to TH peradeniyafor laparoscopic surgery. Following surgery her Blood pressure controlled without drugs and blood sugar controlled withgliclazide. She was planned to follow up in endocrinology clinic.

**Discussion:** Pheochromocytomas are catecholamine secreting tumour and usually benign. 30% of pheochromocytomas are associated with MEN-2, NF-1. Clinical manifestations are due to excessive catecholamine.Pheochromocytoma in pregnancy is very rare 1/54000 and life threatening condition to both. Clinical features are similar to non-pregnant patients. Diagnosis can be made with urinary or plasma catecholamine levels, VMA and CT or MRI. Management during pregnancy needs multidisciplinary approach. Literature said early diagnosiscan do laparoscopic surgery to remove the tumour at 24 weeks of POA, if diagnosed later continue fetal monitoring and control BP, HR and do caesarian section and tumour removal at 37 weeks

### **P29: Case history: Posterior reversible encephalopathy syndrome (PRES)**

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**Introduction:** Posterior reversible encephalopathy syndrome (PRES) is clinical–neuroradiological entity associated withpre-eclampsia. It is characterized by headache, vomiting, visual disturbances, seizures and altered mental state, withradiological findings of oedema in the posterior circulation of the brain

**Case history:** 26 years old primi transferred from local hospital to Kandy TH on day 1 of emergency LSCS due to eclampsia. She presented to local hospital after 7 episodes of generalized fits, headache, vomiting, BP 170/110 and urine albumin 3+. After LSCS she had 3 episodes of fits. At Kandy TH she had altered conscious level, headache, no fever, BP 160/100, GCS 9/15 and knee reflexes 3+. Medical opinion was suggestive of meningitis and started antibiotics. Neurologist impression was effects due to eclampsia and omitted antibiotics, suggests CT-brain and CT venography. Her FBC, CRP, ESR, ECG, 2D ECHO, renal functions, blood picture, were normal, but her AST and ALT were high Non contrast CT brain was suggestive PRES(Posterior reversible encephalopathy syndrome-images are below). Hepatology opinion taken for the high AST, ALT and thir impression was effect of post eclamsia, need follow up. She was spontaneously recovered after 3 days. Her BP, urine albumin and liver enzemes were came to normal within 2 weeks.

**Discussion:** PRES was associated with immuno suppressive drugs,SLE, sepsis and nephrotic states. Literature said prompt recognition and management of PRES is required to avoid the risk of irreversible lesions and treatment of underlying cause. When PRES is associated with pre-eclampsia, management follows the treatment algorithm for severe pre-eclampsia with blood pressure control, prevention and/or treatment of seizures andPrompt delivery of the baby.

### **P30: Case history: Posterior uterine wall rupture during labour in a non-scared uterus**

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**Introduction:** Uterine rupture in the course of labour is a well-documented complication, and the majority of cases occur in women with scarred uteri. But non scarred uterus also can affected by rupture following spontaneous onset of labour.

**Case history:** A 31 year old pregnant woman, gravida 2, para 1, was admitted to the ward at one day prior to 40 weeks as our ward policy. The patient had a history of previous normal vaginal delivery at completion of 40 weeks. She denied any other medical or surgical illnesses. She was followed up regularly at our antenatal clinics and at 40 weeks plus two days of POA she was admitted with labourpain. The patient was put to the labour ward and membrane was ruptured artificially. The labour progressed well and within five hours baby was delivered vaginally. During labour, no fetal distress was found and uterine contractions were without overt or abnormal contractions. Maternal monitoring was continued but patient complained abdominal pain and it was gradually progressed. Pulse rate increased gradually and pulse pressure dropped within next two hours. Ultra sound scan was performed and it showed free fluid and we decided to do emergency laparotomy. Operative findings revealed a large haemo-peritoneum and 4 cm irregular two laceration wounds were found on the posterior uterine wall near the lower segment of the uterus.

**Discussion:** Spontaneous uterine rupture during labour is a relatively rare complication. The majority of cases occur in women with scarred uteri. It is well known that women who have undergone previous gynecological operations resulting in scarred uteri are at high risk for uterine rupture in pregnancy; the occurrence is often intra-partum. Therefore, close observation and follow-up during the labour course are emphasized in these patients. The uterine activity patterns and oxytocin use do not appear to be associated with the occurrence of intrapartum uterine rupture. Many reports demonstrated that underlying pathological changes could be anticipated in the presence of certain risk factors; however, our patient was devoid of any of the following risk factors which might contribute to spontaneous uterine rupture, including multi-parity, uterine anomaly, uterine diverticula, placenta percreta, arterio-venous malformation, endometriosis, endometritis, precipitous labour or obstructed labour.

### **P31: Case history: Pregnancy after Kidney Transplantation**

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**Introduction:** Reproductive success is a common, expected outcome for male and female recipients of solid-organ transplants. There are, however, important maternal and fetal complications that need to be considered to provide optimal care to the mother and her infant. Major maternal concern is hypertension during pregnancy, as a result of either preexisting chronic hypertension or the development of hypertension during gestation. During normal pregnancy, BP changes with gestational age but the transplant recipient often experiences a similar but blunted pattern of BP variation. Therapeutic targets for mild to moderate hypertension in the CKD population are not known, although recommendations have been made for treatment at BP levels  $\geq 150/90$  mmHg.

**Case history:** 36 year mother with second pregnancy and no children and she is known patient with type 1 diabetes mellitus for 20 year duration with poor glycemic control. First pregnancy ended up at 29 weeks due to pre eclampsia. Baby died at day 3 due to extreme prematurity. Kidney transplant done due to renal function deterioration. While she was on immune suppressants,

antihypertensives and antidiuretic drugs she was conceived. Pregnancy continued upto 34 weeks of POA and planned to do EL LSCS.

**Discussion:** Maternal renal transplant patients with hypertension are at increased risk for development of superimposed preeclampsia, with an incidence of 15 to 25% compared with 5% of normotensive pregnancies. Preeclampsia is a syndrome characterized by the development of hypertension in association with new-onset proteinuria during the second half of pregnancy. There are many questions to be answered about the safety of pregnancy in the transplant setting. Transplant recipients and their donors have been conceiving for so many years, yet only limited, retrospective data are available about the short- and long-term outcomes for the mother and her infant. Careful management with multidisciplinary team approach will give better outcomes.

### **P32: Case history: Pseudocyesis: A review and report of three cases in a single obstetric unit.**

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**Introduction:** Pseudocyesis is a false sensation of being pregnant in a woman who is not. It is associated with clinical signs and symptoms associated with pregnancy. The exact cause for producing symptoms and signs of pseudocyesis yet not described. Eventhough it is rare, and occurring rate of 1 to 6 for every 22,000 birth, we were reported three cases of pseudocyesis in single unit during the period July to December 2014.

**Case history:** Case 1: A 36 years old woman admitted to ward with diminished fetal movements. This was her fifth pregnancy and her previous gestations were first trimester miscarriages. Eventhough, she had the 'pregnancy cards' of previous pregnancies she did not give history of hospital admission following miscarriages. She had amenorrhea for 37 weeks and she felt fetal movements for last three months. On examination showed distended abdomen. Ultrasound scan found no intrauterine pregnancy. She had strong desire to become pregnant.

**Case 2:** A 28 year old women on her first pregnancy following 3 years of subfertility, was referred to antenatal clinic for anomaly scan at the gestation of 20 weeks. She had early pregnancy symptoms and there was gradual enlargement of her abdomen. According to her history she had done pregnancy test herself, which was positive. She denied history suggestive of miscarriage. Examination revealed abdominal distension about 22 weeks size gestation. The scan showed a non gravid empty uterus. Her thought consist of a strong belief of being pregnant.

**Case 3:** A 33 years old women with BMI 32Kg/m<sup>2</sup> admitted to ward at 28 weeks of gestation with a vaginal bleeding. She conceived after 8 years of married life. According to her history pregnancy test was positive in early pregnancy. She had been attending to antenatal to antenatal clinic for 4 months and she had fetal movements for last 2 months. On examination she had distended abdomen which, compatible with her period of gestation. Ultrasound scan showed non gravid uterus.

**Discussion:** There are various explanations for pseudocyesis, none of which universally accepted because of complex involvement of endocrine and psychogenic factors. The common finding of above three cases was all women had severe desire to become pregnant. It is believed that this psychological desire triggers the pituitary gland to secrete hormones mimicking the

hormone changes in real pregnancy. Psychotherapy is the best recourse to ensure the restoration of their mental health.

### **P33: Case history: Rare case of Darier's disease in pregnancy: a case report**

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**Introduction:** Darier's disease (also known as keratosis follicularis or Darier-White disease) is due to mutation in the ATP2A2 gene and it has autosomal dominant inheritance. This is a rare disorder and worldwide prevalence is estimated between 1: 30,000 and 1: 100,000. Histologically, Darier's disease is characterized by dyskeratosis and suprabasal acantholysis. It is manifested as pruritic, malodorous, disfiguring, warty plaques in seborrheic and flexural regions. It often affects the chest, back, neck, forehead, groin and nails.

**Case history:** A 39 year old woman with previous two pregnancies (P1 normal vaginal delivery and P2 cesarean section) presented with her third pregnancy at 32 weeks of pregnancy with profuse, dark warty papules in vulva, groin, lower abdomen, sub mammary area, neck and forehead. In the vulva papules are spreading over the labia majora, labia minora and perianal skin with loss of elasticity and with significant fissuring. Following dermatology review it was diagnosed as exacerbation of Darier's disease. Patient was treated with topical steroids and moisturizers and responded well.

**Discussion:** The potential implications of Darier's Disease in pregnancy, especially when it involves the lower abdomen and vulva, have not been well reported. It may cause traumatic vaginal birth due to impaired skin elasticity when there is vulval involvement and may affect the Pfannenstiel incision during cesarean section when there is lower abdominal involvement. It may also cause complications during spinal anaesthesia if there is widespread back involvement. Further, it may affect the breast feeding if the breasts are involved. Since this is an autosomal dominant disorder, 50% of offspring will get affected. Therefore couple should be offered genetic counselling at preconception visits. Early diagnosis and treatment with topical treatments is required to minimize these complications during pregnancy.

### **P34: Case history: Recurrent Boarderline Ovarian Tumour (BOT) in Pregnancy.**

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**Introduction:** BOTs are a distinct histological entity. Previous studies in pregnant patients with adnexal masses have reported an incidence of BOTs ranging from 0% to 8%.

**Case history:** A 35 year old on her third pregnancy presented at 16 weeks of gestation to Antenatal Clinic DSHW Colombo. At the age of 21 on her first pregnancy she underwent midline laparotomy at gestation of twenty weeks for ovarian cyst (15x10cm) complicating pregnancy. Histology confirmed boarderline ovarian tumour, following oophorectomy she was free of symptoms and had two children delivered by elective caesarian section due to malpresentation. In current pregnancy at 18 weeks gestation she was admitted again due to acute abdominal pain, nausea, and vomiting. Physical examination revealed a very large abdominal mass apart from gravid uterus. Ultrasonography showed intrauterine pregnancy and two large ovarian masses. Her CA 125 and Alfa fetoprotein level were normal. After multidisciplinary team approach plan for exploratory laparotomy

at 20 weeks. It was a bicornuate uterus with pregnancy located in the left horn. Large left ovarian cyst (18 x 16 cm) which was positioned at right hypochondriac region and no ovarian tissues were separately identified. Smaller right ovarian cyst (12 X 10 cm) located in Pouch of Douglas and ovarian tissues were not separately identified. Omentum and liver surface appeared normal. At 37 weeks she underwent elective caesarian section and caesarian hysterectomy. Histology revealed that bilateral serous borderline ovarian tumours. She was referred to a oncology centre for further management.

**Discussion:** Around 2% to 3% of masses removed during pregnancy are found to be malignant. Pelvic ultrasound remains the mainstay for evaluating the adnexa. They are at risk for having adverse perinatal outcomes, including preterm birth and early neonatal death. It is also important to underline that there are no established guidelines regarding the optimal timing for surgical procedures. Experience shows the ovary is not essential to maintain a normal hormonal profile in late pregnancy and early puerperium.

### **P35: Case history: Successful management of a Heterotopic Pregnancy following natural conception**

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**Introduction:** Heterotopic pregnancy is defined as the presence of multiple gestations, with one being present in the uterine cavity and the other outside the uterus, commonly in the fallopian tube. Careful sonographic assessment of the whole pelvis is critical in diagnosis.

**Case Report:** A 25-year-old woman with 6 week period of amenorrhea presented with abdominal pain. Urine pregnancy test was positive. She was haemodynamically stable but has had tachycardia and tenderness with guarding in the lower abdomen. Transvaginal ultrasound revealed a live intrauterine gestation of about 6 weeks with small amount of free fluid in pouch of douglus. A left adnexal mass was also noted with a gestational sac and a fetal pole with heart beat. The Doppler study of left adnexal mass showed low resistance flow and a tubal ring appearance. The patient underwent emergency laparoscopic surgery and there was a unruptured left-sided tubal pregnancy with minimal hemoperitoneum. Salphyngectomy was performed; the intrauterine live gestation was allowed to continue. Currently the mother is followed up in our antenatal clinic and she is now in her second trimester.

**Discussion:** Heterotrophic pregnancy is a rare but important gynecological condition which needs high degree of suspicion for identification. Although it is much commoner following assisted reproductive techniques, occurrence is rare after a natural conception with an incidence of 1:30000 pregnancies. Most commonly, the location of ectopic gestation in a heterotopic pregnancy is the fallopian tube. However, cervical and ovarian heterotopic pregnancies have also been reported. Careful sonographic assessment of the whole pelvis is critical. The presence of an IUP cannot, per se, rule out a coexisting extra uterine pregnancy and may actually result in a delay in diagnosis. Transvaginal ultrasound can depict an adnexal mass. High resolution transvaginal ultrasound with color doppler will be helpful as the trophoblastic tissue in the adnexa in a case of heterotopic pregnancy shows increased flow. The main issue in the treatment of the HP is to be as minimally invasive as possible to preserve the developing IUP. Laparotomy is classically

reserved for cases with life threatening haemoperitoneum or cornual ectopics. Early diagnosis and laparoscopic treatment provide good outcome, without the post-surgical inconvenience of laparotomy and with the advantage over medical treatment of an immediate result

### **P36: Case history: Vaginal delivery in a primipara with short stature and kyphoscoliosis**

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**Introduction:** The relationship between short maternal stature and adverse labour outcomes such as obstructed labour is well known. Maternal height may be used as a simple tool to assess the risk of cephalopelvic disproportion.

Several pelvic deformities which are associated with kyphoscoliosis have been identified, the lower the deformity the more is the emphasis on pelvis. The pregnancy can be allowed to continue to vaginal delivery if the lesion is high thoracic. We report a patient with a height of 109 cm and kyphoscoliosis who had an uncomplicated vaginal delivery.

**Case report:** A 25 year old primigravida a known patient with short stature and kyphoscoliosis was admitted to our unit with a watery vaginal discharge at 36 weeks of gestation. The course of her pregnancy was uneventful and an elective caesarian section was planned to be done under general anesthesia, with the involvement of the consultant obstetrician and a consultant anesthetist at 37 weeks of gestation after a prenatal assessment done at 34 weeks gestation. At 36 weeks, she presented to the ward with rupture of membranes. On admission she was well and there were uterine contractions. On vaginal examination os was dilated up to 2.5 cm and cervix 75% effaced. As she was in labour it was decided to give a trial of labour. She was taken to labour ward. After about two hours, os was fully dilated and, vertex was at +1. Woman was allowed in labour and she successfully delivered a 2 kg baby. Post partum period was uncomplicated.

**Discussion:** Short maternal stature is associated with an increased risk of obstructed labour due to cephalo pelvic disproportion. The typical defining characteristic of dwarfism is an adult height of less than 147cm. General consensus is that women with height of 109 cm would not be able to have an uncomplicated vaginal delivery. However spinal deformities such as kyphoscoliosis are not so afflicted in their ability to deliver vaginally as their thoracic deformity does not restrict the pelvic capacity for vaginal delivery. But certain other complications may occur. The incidence of successful regional block is reduced and complications are more frequent.

### **P37: Ectopiacordis. A case report.**

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**Introduction:** Ectopiacordis, is a rare congenital defect in which the heart is completely or partially displaced outside of the thoracic cavity. The etiology of ectopiacordis remains unknown, but failure of closure of the ventral wall in the developing embryo is the leading explanatory hypothesis.

**Case history:** We report a case of a 32-year-old lady in her second pregnancy, with a previous healthy baby, in which the prenatal fetal ultrasound, performed at 16 weeks of gestation, revealed a defect of the anterior chest wall with exteriorization of the heart (figure 1,2). The mother was not suffering from any illness related to pregnancy. There was no history of intake of



any teratogens or exposure to unusual environment in antenatal period. The family history was negative for congenital anomalies or genetic abnormalities. There was no history of consanguinity. The option of termination of pregnancy was considered and discussed with the couple but she came after two weeks with spontaneous miscarriage and medical evacuation was performed.

**Discussion:** Ectopiacordis is a very rare anomaly with an estimated prevalence of 5 to 8 per million births and may occur more frequently in females. It is related to the malformation of the anterior wall of the thorax, with an extrathoracic location of the heart. Ectopiacordis can be classified into five types: 1) Cervical, in which the heart is located in the neck with sternum that is usually intact; 2) thoracocervical, in which the heart is partially in the cervical region, but the upper portion of the sternum is split; 3) thoracic, in which the sternum is completely split or absent, and the heart lies partially or completely outside the thorax; 4) thoracoabdominal, which usually accompanies Cantrell's syndrome (featuring gastroschisis, atotal sternal defect, a pericardial defect, a diaphragmatic defect, and multiple intracardiac anomalies) and 5) abdominal, in which the heart passes through a defect in the diaphragm to enter the abdominal cavity. The majority of ectopiacordis patients have associated intracardiac defects such as ventricular septal defect, atrial septal defect, tetralogy of fallot, and diverticulum of the ventricle and has also been reported with other congenital anomalies such as abdominal wall defects, cranial and facial malformations. The defect of the abdominal wall can range from simple diastasis to huge omphaloceles with bowel, liver, and heart. The ectopic heart may either simply bulge out of the chest or be entirely out of the chest. The diagnosis has been made as early as 15 weeks, but in some cases complicated by oligohydramnios, these cases may be missed entirely. The differential diagnosis includes isolated thoracic ectopiacordis, amniotic band syndrome, and body stalk anomalies. The key features for distinguishing these conditions is the position of abdominal wall defect in relation to the umbilical cord insertion, eviscerated organs, the presence or absence of membranes or bands, and associated anomalies. The prenatal diagnosis is easily made with ultrasound by visualizing the heart outside the thoracic cavity. In view of the poor prognosis, termination of pregnancy can be considered if ultrasound diagnosis is made before viability. The prognosis depends on the degree of the intracardiac involvement and associated malformations, as well as the degree to which the heart is exposed. The majority of neonates die within the first hours of birth. Attempts at surgical correction are already widely performed, with immediate covering of the heart and exposed abdominal contents using silastic prosthesis being recommended. Ectopiacordis is a rare incident and it should be adequately evaluated for appropriate prenatal and postnatal management.

### **P38: Induction of labour and its outcome in a teaching hospital**

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**Objective:** To study the Induction of labour (IOL) and its outcome in a teaching hospital Design: A prospective observational study.

**Method:** Data was collected from consecutive women who underwent induction of labour during a period of six months, using a pre-tested form.

**Results:** Induction of labour rate was 47.3 %. The main indications for induction of labour were Past dates (63.1%), Pre labour rupture of membranes (19.0 %), Pregnancy induced hypertension (6.1%), Gestational diabetes mellitus (5.7 %). To ripen the cervix before induction of labour Stripping of membranes carried out in (41.0 %), Foley; catheter was inserted (18.0 %). Prostaglandin vaginal pessaries (PGE2) was introduced (6.0 %).

**Conclusions:** Induction of labour was associated with significantly higher rates of instrumental deliveries and caesarian sections. The main indications for IOL were past dates and pre labor rupture of membranes. Modified Bishop's Score (MBS) was good indicator for prediction of outcome after IOL. IOL had no significant foetal or maternal outcome. Induction of labour should be done after assessing the cervical favorability when it is necessary. When cervix is unfavorable cervix has to be ripen with suitable agent. PG is more effective in cervical ripening than Foley catheter insertion.

### **P39: Interval between decision and delivery by caesarean section in a tertiary care unit in central province, Sri Lanka—are current standards achievable?**

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**Objectives:** To audit interval from decision to delivery in category 01 caesarean section to determine whether the current standard of 30 minutes is achievable routinely and to determine factors affecting the time interval.

**Methods:** Audit was conducted in the Obstetric unit, General hospital, Matale, from May 2015 to July 2015. 124 emergency caesarean sections were analyzed considering the decision to delivery interval along with the factors affecting the interval.

**Results:** In the continuous audit, 38 of 128 (29.7%) mothers were delivered within 30 min. 42 (32.8%) mothers were delivered within 40 min. Rest of the mothers (37.5%) were delivered with in 40 to 110 min. The main factors affecting the interval were the time taken to prepare and take the patient to the theatre, unavailability of the theatre table, delay to get cross match blood, delay of giving anaesthesia.

**Conclusions:** The universal standards of 30 min of decision to delivery interval are not being achieved during routine practice. However, improving communication and facilities may facilitate reaching the target

### **P40: Obstetric cholestasis: a case report**

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**Introduction:** Obstetric cholestasis is a liver disease confined to the pregnancy but aetiology is not known. It is characterized by generalized pruritus, particularly the palms and soles, and abnormal liver function tests. Obstetric jaundice is more common in third trimester.

**Case history:** A 42 year old mother with her sixth pregnancy (P6C3) at POA of 26 weeks, previously diagnosed as pregnancy induced hypertension and was on methyl dopa, presented with intense generalized pruritus without a rash for two days. She did not have pre-eclampsia symptoms, was not icteric and she had negative urine albumin. Liver enzymes were high (AST 606 IU/l, ALT 592 IU/l) and had normal platelet counts (212X10<sup>3</sup>/ml – 261X10<sup>3</sup>/ml). Alkaline phosphatase (475 IU/l) and total bilirubin 135.3 μmol/l (direct 59.6 μmol/l, indirect 54.5 μmol/l) were high. Lactate dehydrogenase was marginally high (495 U/l). APTT (25.5s), INR (1.12), serum creatinine (0.34 mg/dl), blood urea (1.43 mmol/l) and serum potassium (4.7 mmol/l) were normal. CRP was 25.7 mg/l with negative blood culture. Abdominal sonography was normal and there were no evidences of acute fatty liver or obstructive jaundice. Serology

for hepatitis A, B, C and E was negative. Blood picture was normal and there was no evidence of haemolysis. She was treated with vitamin K, ursodeoxycholic acid, N acetyl cysteine and IV ceftriaxone. Irrespective of the treatment her symptoms were progressed and liver enzymes gradually elevated (AST 963u/l, ALT 1183u/l). Termination of pregnancy was decided and baby was delivered by emergency Histerotomy, but baby died due to extreme prematurity. Following Histerotomy mother recovered rapidly.

**Discussion:** Diagnosis of obstetric cholestasis was made by exclusion. HELLP syndrome, acute fatty liver in pregnancy, viral hepatitis and drug induced hepatitis were among other major differential diagnoses. Vigilance, early detection, timely delivery and supportive care resulted in good maternal outcome.

#### **P41: Parturient perception and experience on discrimination on race, language and religion in a sample of women admitted to professorial obstetrics unit of De Soysa Maternity Hospital**

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**Objective:** Assessment on the patient perception and experiences of discrimination depending on the race, language and religion in the society and ward and the measures to avoid those circumstances.

**Methods:** Descriptive cross sectional study was carried out with the voluntary participation of 97 pregnant women admitted to the ward 15 of De Soysa Hospital during 3 months period using a self-administered questionnaire and data was analysed with descriptive statistics.

**Results:** The participants consisted of Sinhalese (55.7%), Tamil (23.7%) and Muslims (20.6%). There were Buddhists (45.4%), Catholic (15.5%), Hindu (18.6%) and Islam (20.6%) devotees. 18.5% Sinhalese, 35.3% Tamils and 17.6% Muslims perceived that they have subjected to discrimination which was reinforced by the experiences at workplaces and the wards in a positive or negative manner. Minority's (14.4%) perceptions were influenced by the ideas of the people close to them. A feeling of discomfort or inferiority to others was felt by 22% Sinhalese, 52% Tamils and 25% of Muslims due to their race, language or religion. 7.4% Sinhalese, 34.7% Tamils and 5% Muslim had experienced discrimination at police and courts, home vicinity, school, public transport or workplace in the descending order of frequency. Two Tamil and two Muslim mothers had experienced discrimination at the ward on advising and on taking consent for the surgery. They had felt sad or angry with the staff but had remained silent or had discussed the incidence with family members without confrontation. There was no significant difference ( $p=0.053$ ) in the experience of discrimination of Sinhalese versus Tamil and Muslims during their life time. The mothers suggested thinking as a nation than individual races as well as learning both the Sinhala and Tamil language and cultural values by the hospital staff would avoid the situations of discrimination.

**Conclusion:** As doctors when we get information from parturient regarding study area most of the ethnic minorities are reluctant to give frank opinion regarding specific questions. This area needs to be studied in psychological perspectives of women who are admitted for antenatal care and delivery. Further studies are needed to represent the whole island if we are going to get meaningful conclusions on this sensitive subject.

#### **P42: Study on usage of antenatal corticosteroids in preterm labour**

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**Introduction:** Transplacental therapy of corticosteroids is effective not only in reducing respiratory distress syndrome but also in reducing other complications of prematurity such as intraventricular haemorrhage. Treatment of women at risk of preterm birth with a single course of antenatal corticosteroids reduced the risk of neonatal death by 31% (95% CI 19–42%), RDS by 44% (95% CI 31–57%) and intraventricular haemorrhage by 46% (95% CI 31%–67%). There are concerns about the effect of steroids on fetal neurodevelopment on the longer term and multiple courses of treatment are now not advocated. It is therefore necessary to properly assess the prospective candidate for steroid therapy to identify those who need the treatment. The objective was to assess the effectiveness of usage of antenatal corticosteroids (ANCS) in suspected preterm labour.

**Method:** Study was conducted from 1st of July 2014 to 28th of February 2015 in Obstetrics and Gynaecology Professorial unit, Teaching Hospital, Peradeniya. Women who were admitted with suspected spontaneous pre-term labour from gestation of 24 + 0 to 35 + 6 weeks were selected. Spontaneous pre-term labour was diagnosed from the history and examination. Uterine activity was assessed using the cardiotocogram. In giving ANCS Royal College of Obstetricians and Gynaecologists guidelines were followed. Proper and effective ANCS administration is taken as if the delivery occurs 24 hours after the administration of second dose of steroids.

**Results:** There were 243 pre-term deliveries during the study period. False positive rate for preterm labour was 32% and they were all administered with a full course of steroids. Out of all the treated cases 89% of fetuses delivered prematurely exposed to proper ANCS regimen while 11% of fetuses delivered within 24 hours of steroids.

**Conclusion:** Out of all cases of preterm labour only 89% received proper ANCS treatment which has lot of benefits to the neonate. Same time we have given unnecessary ANCS for 32% of cases. This emphasizes the need of establishing universal screening for pre-term labour with more stringent criteria where we can give targeted ANCS.

#### **P43: Use of phone calls to the husband during labour; alternative method for labour pain relief**

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**Objective:** Explore the alternative method of labour pain management using phone calls to the husband

**Methods:** The study was a descriptive cross sectional study conducted with the voluntary participation of the 27 mothers just after the delivery in whom the only pharmacological pain reliever used was intramuscular pethidine, during a one month period using an interviewer-administered questionnaire and data was analyzed using descriptive statistics and tests of significance.

**Results:** The age range of the sample ( $n=27$ ) was in the range of 19 to 41 years of age. All were married and majority of the pregnancies were pre-planned (66.7%). Majority (92.6%) of

the pregnancies was uncomplicated and rest were complicated with gestational diabetes mellitus. Out of 15 mothers who were multigravida 13 has had delivered vaginally and two by caesarean section. All of the mothers were competent in using cell phones. The mean pain score of this sample was 8.74. Majority (55.6%) commented that the use of the cellphone to talk to their husbands during labour helped to ease their pain and willing to use it again in next childbirth. There was no significant difference between the mean pain score ( $p=0.139$ ) between the patients who commented that the use of cell phone was helpful ( $n=15$ ) and not helpful ( $n=12$ ) to manage their labour pain.

**Conclusion:** Pain relief during labour includes antenatal classes, psychoprophylaxis and anaesthetic methods. The labour companion was introduced in this ward some time ago which was not appreciated by many labouring mothers. Husband's presence during labour is an attractive and well realized method. But non availability of the husband can be replaced by cellphones and other communication devices with visuals. This study is preliminary effort to give labouring women to speak to their husbands from a distance and share their love, agony and joy

#### **P44: A case of androgen secreting ovarian tumour at 40 years.**

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**Introduction:** Steroid cell tumors of the ovary account for less than 0.1% of all ovarian tumors and these tumors may present at any age in association with interesting presentations related to the hormonal activity and virilizing properties of tumor. As most of these tumors are diagnosed at an early stage and do not recur or metastasize, little is known about their response to therapies such as chemotherapy or radiation.

**Case history:** This is the case of a 40-year-old mother of two children presented with a history of sudden onset of amenorrhea and abnormal hair growth on the face and bold hair pattern of the head for four months duration. Examination revealed a male pattern of hair distribution in the beard region, anterior chest wall and arms. Ultrasonography of the abdomen and pelvis revealed a multi locular, thick-walled mass measuring  $51 \times 54 \times 68$  mm with moderate to significant vascularity. There was no ascites, retroperitoneal lymphadenopathy, adrenal gland enlargement, or liver metastasis. Tumor markers and hormonal levels were evaluated and showed raised serum testosterone levels. The patient underwent an exploratory laparotomy and well-encapsulated mass without any adhesions to surrounding structures and with engorged ovarian vessels. Microscopic examination showed fibrous cyst wall lined by flattened epithelium. At post-operative follow-up, her serum testosterone level had gone down to normal, and there was regression of the abnormal hair pattern.

**Discussion:** Ovarian steroid cell tumors are grouped under sex-cord stromal tumors and are usually benign, unilateral and characterized by a steroid cell proliferation. Steroid cell tumors are associated with androgenic changes with variable frequency, ranging from 12% to over 50 %, and they are usually of many years duration. This case is unique because of its acute presentation, with sudden onset of signs of virilization, over a six month period. The majority of steroid cell tumors have a benign or lowgrade behavior. Interestingly, pathologically-benign tumors can behave in a clinically malignant fashion. Ovarian steroid cell tumors, the primary treatment is surgical extirpation of the lesion, and there are no reports of effective treatment with radiation or chemotherapy.

#### **P45: A Case Report: Atypical Meig's Syndrome**

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**Introduction:** Meig's syndrome is a very rare syndrome and an uncommon cause of pleural effusion associated with ascites and a benign ovarian tumor, most often a fibroma. Atypical Meig's syndrome characterized by a benign pelvic mass with right-sided pleural effusion but without ascites, can also occur. As in Meig's syndrome, pleural effusion resolves after removal of the pelvic mass. The mechanism of formation of fluid in body cavities remains a mystery ever since Meig's drew attention to this syndrome over 50 years ago. It may present a diagnostic problem as the clinical picture may masquerade as pulmonary tuberculosis or gynecological malignancies with metastatic involvement in the chest.

**Case history:** 22 years old university student presented with left sided lower abdominal pain and shortness of breath for 3 days duration. Ultrasound of the abdomen revealed left sided solid ovarian mass without ascites. Chest X-ray revealed right sided pleural effusion. CA -125 -8 IU/L. Exploratory laparotomy was performed and left sided solid ovarian mass, with a smooth surface, was noted. Right ovary and bilateral tubes and uterus were normal. No ascites was noted. Left sided oophorectomy was done. Ovarian fibroma was confirmed with histology. Pleural effusion was resolved spontaneously.

#### **P46: A Case history: Giant Endometrioma, mimicking Ovarian Carcinoma**

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**Introduction:** Endometriosis is common disorder with its prevalence 15-20% among the reproductive aged woman. Pelvic endometriosis commonly involves the ovaries. Ovarian Endometrioma rarely exceeds 10-15 cm diameter. The serum CA 125 is a tumor antigen commonly elevated in cases of endometrioma. However, levels above 100 IU/ml are rarely observed. We present a case of large endometrioma with elevated serum CA 125 mimicking endometrioma.

**Case history:** A 46 years old multigravida, premenopausal woman presented to our gynaecology ward with gradual distension of the abdomen for six months. She had not experienced dysmenorrhea, dyspareunia or pelvic pain ever before. On abdominal examination there was mobile abdominopelvic mass with regular surfaces. Size of the mass was compatible with the twenty eight week size gravid uterus. On ultrasound examination, there was septated cystic mass that was 200mm x 180mm x 165mm in dimension. Cyst had thick walls and neovascularization was not determined by the Doppler. CA 125 was 124 IU/ml. A cystic mass with a smooth surface arise from right ovary found on laparotomy. Size of the mass was 220mm x 160mm x 165mm in dimension. Uterus was normal in size and there was 45mm x 35mm x 30mm cystic mass on the left ovary, both tubes were attached to the posterior surface of the uterus. Recto uterine pouch obliterated with bowel adhesions. Routine hysterectomy and bilateral salpingo-oophorectomy was done. Cyst contained 2500ml of chocolate brown fluid. Histological examination confirmed the diagnosis of endometrioma.

**Discussion:** Generally, diagnosis of the endometrioma can be made by ultrasonic examination but sometimes it is difficult to make a diagnosis preoperatively. The common symptoms of

endometrioma are dysmenorrhea, dysparunia, infertility and constant pelvic pain. But these symptoms were not present in our patient. So, endometrioma must be kept in mind during differential diagnosis in cases with huge adenexial mass, even in the absence of symptoms which related to the endometrioma.

#### **P47: An audit on procedure specific patient information leaflets for major surgery at general hospital-Mannar**

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**Objectives:** A common cause for litigation in medical practice is the lack of communication between patients and health care professionals. An effective way to improve this is through patient information leaflets as it provides uniform, objective information which the patient can refer to at all times. Procedure specific patient information leaflets in Sinhala, English and Tamil were developed for caesarean section, abdominal hysterectomy and vaginal hysterectomy describing the benefits, alternatives, complications, post-operative care and convalescence. Our objective was to evaluate compliance and patient satisfaction of the new process.

**Methods:** An anonymized evaluation form was used to record responses in patients undergoing the above mentioned surgeries in the Obstetrics and Gynaecology unit of General Hospital, Mannar over a period of two months.

**Results:** The patient information leaflets had been administered to 46 (82%) out of 56 eligible patients. All the patients stated that they understood about the intended surgery and its benefits. Complications were understood by 45 (98%) while 43 (93%) agreed that they understood about the alternatives. Mode of anaesthesia and its complications were understood by 39 (85%) while 45 (98%) stated that they understood about the post-operative care and convalescence.

**Conclusions:** Procedure specific patient information leaflets were helpful in overcoming language and time constraints. Patient information leaflets will promote patient autonomy and the formation of a partnership between clinicians and patients, more so in the transition from a paternalistic to a deliberative health care model in keeping with the improvement in socio-economic and health standards in Sri Lanka.

#### **P48: Audit: Abnormal uterine bleeding in perimenopausal women: a retrospective Audit of investigation undertaken in De Soysa Hospital for Women.**

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**Introduction:** Abnormal uterine bleeding (AUB) is an important symptom of both benign and serious gynaecological disease. AUB is the single most common reason for gynaecological referral accounting around 12%. Abnormal bleeding can be a consequence of pelvic pathology, including malignant disease, but the majority have no underlying abnormality. Objective was to determine how abnormal uterine bleeding in perimenopausal women were investigated at ward 14, DSHM.

**Methods:** A list of women presented to ward 14 during one year period from Jan.2014 to Jan.2015 reporting abnormal uterine bleeding (AUB) and those who has undergone endometrial sampling were obtained from admission register. Patient data were collected using a audit pro-forma. Data base was created from

age, endometrial thickness, and mode of ultrasound, endometrial sampling method. Histopathological reports were audited and analyze the conclusions. Data were analyzed using SPSS.

**Results:** Two hundred three patients were audited during study period. Mean age was 45 years. TVS were done 198 (97.5%), 168 (82.8%) had measured the endometrial thickness. 41 (24%) women recorded as ET less than 5mm and 127 (76%) had  $\geq 5$ mm. Mean ET was 7.1mm. Of which majority of 142 (70%) had undergo dilatation and curettage, 52 (25.6%) had pipelle sampling and 9 (4.4%) had hysteroscopy. Fifteen 10.5% among D&C and 19 (36.5%) those from pipelle group had inadequate sample. Out of 52 pipelle group 20 (38.5%) histopathology reports came as inconclusive. 67 reports showed pathologies.

**Conclusion:** This study revealed good use of TVS and measurement of ET but it shows under-utilization pipelle aspiration. The percentage of inadequate sampling is 26% higher inappropriately than the audit standard in pipelle and it's about 10.5% in D&C.

#### **P49: Audit: Does experience count in Pipelle Sampling? An audit carried out in Professorial Gynaecology Unit, Colombo South Teaching Hospital, Sri Lanka.**

*Samarawickrama NGCL, Fernando A, Withanathanrthige MR, Wijenayake UN, Udumullage SH.*

**Introduction:** Abnormal uterine bleeding is always a major concern for any women at any age. Even though Hysteroscopy & Biopsy is the gold standard, lack of free availability is a limitation in many health care institutions. Dilatation & Curettage (D & C) or Endometrial Sampling with Pipelle device therefore has a major role. Pipelle sampling has high sensitivity and specificity but to achieve these high rates it is essential to obtain adequate samples. For the last one year we observed that majority of histology reports from Pipelle sampling came as inadequate sample & almost all these sampling was carried out by Intern House Officers (IHO). The objective was to assess the sample adequacy & the outcome of Pipelle sampling which performed by IHOs & to assess the percentage of inadequate samples among Pipelles & D & C.

**Method:** Retrospective audit which compare the results of Pipelle sampling with D & C results in Professorial Gynaecology Unit, Colombo South Teaching Hospital from 2014 January to 2015 June.

**Results:** Total of 59 women who underwent Pipelle sampling 48 were pre and perimenopausal & 11 were post-menopausal. The mean endometrial thickness was 7 mm. 59.32 % of the samples were adequate for histological assessment where 40.68 % the samples were inadequate. Simple endometrial hyperplasia without atypia found in 5.25 %. The presence of endometrial polyp is 16.94 % & it was 28.57 % among the histologically analysed group. From all histological reports 40.67 % were inadequate samples. When compared with D & Cs performed during the same time period, only 3.3 % was found to be inadequate samples out of 61 samples.

**Conclusion:** The percentage of inadequate samples was unacceptably high when compared to the audit standards as well as with D & C results. This may be due lack of competency of IHOs to identify the adequacy of the sample as well as the sub optimal procedure techniques. A re audit is currently underway after addressing these issues.

## **P50: Audit: Quality of documentation of the Gynaecological surgeries.**

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**Objective:** Accurate documentation of surgical operation notes is essential. There is a paucity of audits in the specialty of Gynaecology to estimate the standard of documentation of operation notes. The objectives of this study to compare surgery note documentation against guidelines published in Good Surgical Practice by the Royal College of Surgeons of England (RCS Eng) 2010

**Methods:** The retrospective audit carried out in a gynaecology ward. Operation notes of the patient who underwent total abdominal hysterectomy during June 2014 to September 2014 were traced. To assess the quality of operation note keeping and compare the results with the “Good Surgical Practice guidelines” as the gold standard. Our findings were presented to the medical staff of the unit and guideline was made available in the theater. A second audit was then carried out prospectively in the period of November 2014 to January 2015.

**Results:** Fifty operation notes were analyzed in initial audit and 30 analyzed in re-audit. Date and time of the surgery mentioned 44% in initial audit and 93% mentioned in re-audit. Name of the surgeon and the anesthetist recorded in 92%, 100% and 64%, 100% of documents, in initial audit and re-audit respectively. Type of incision noted in 86% and 100% documents, in initial audits and re-audit respectively. Operative diagnosis documented in 82% and 93% in initial and re-audit respectively. The operative findings were recorded only in 58% in initial audit and which 86% was in re-audit. Regarding the blood loss recorded in 12% documents in initial audit and 63% of documents in second audit. Details about the closure technique documented, in 76% and 93% of documents in audit and re-audit respectively. Regarding the antibiotic prophylaxis documented in 10% in initial audit and 60 % in re-audit. Detailed about the post operative care instructions were recorded, in 46% and 100% respectively in audit and re-audit documents. None of the document included signature of the documenter in the initial audit and which was recorded in the 80% of documents in the re-audit.

**Conclusion:** Completeness of the records was not standard. Education of surgeons about the standard record keeping and providing guidelines to the theatres clearly improved documentation of operation notes. Further education and re-audit in regular intervals recommended to keep the standard of documentation.

## **P51: Case report: “Fitz Hugh Curtis Syndrome” – a complication of pelvic inflammatory disease**

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**Case history:** A 27-year-old mother of one child presented with a history of intermittent abdominal pain for 6 months duration. Pain was involving the whole abdomen and got worsened over the last few days. Pain was not increased with breathing, coughing or any other activity which increases the intra-abdominal pressure. She had regular menstrual cycles without menorrhagia or dysmenorrhea. There was scanty vaginal discharge for few months which resolved spontaneously. Her husband was the only sex partner and she had mild deep dyspareunia in recent

past. There was no apparent past history of sexually transmitted diseases. On physical examination, the patient appeared well. Her body temperature, blood pressure and pulse rate were normal. Abdominal examination showed tenderness over the low abdomen without rebound tenderness or guarding. Her liver and spleen were not palpable. Vaginal examination revealed a retroverted mobile uterus and there was left adnexal tenderness. Laboratory data showed normal peripheral white blood cell count and a slightly elevated C-reactive protein level. Liver function tests, renal function tests and blood glucose level were normal. Her CA 125 level was 91. Urine hCG test was negative. Transvaginal scan of the uterus was unremarkable and there was a 3.5 cm diameter cyst in left side ovary. Endometriosis and PID were our differential diagnosis. Diagnostic laparoscopy was performed which showed evidence of inflammation of the pelvic peritoneum and bilateral hydrosalpinx with few adhesions. There were no evidences suggestive of pelvic endometriosis. The ovarian cyst was a simple cyst, probably a corpus luteal cyst. There were dense adhesions between the liver and the diaphragms shown in the pictures annexed (“violin-string”) suggestive of “Fitz Hugh Curtis Syndrome” with the evidence of PID. She was treated with intravenous ceftriaxone 2g single dose followed by oral doxycycline 100mg twice daily plus metronidazole 400mg twice daily for 14 days and analgesics. Her abdominal pain was much improved following the antibiotic regime.

**Discussion:** The pathogenesis of Fitz-Hugh-Curtis syndrome is not completely understood. Some researchers believe that it occurs because of infection of the liver and surrounding tissue, which may result from bacteria traveling from the pelvis directly to the liver or via the bloodstream or lymphatic system. Some researchers believe it may occur because of an improper immune system response to infection with *Neisseria gonorrhoeae* or *Chlamydia trachomatis*. Patients may present with pain in the right upper quadrant, in the area of the liver and the gallbladder which can often be made worse by coughing or any other activity which increases the intra-abdominal pressure. There are no specific signs, however, the condition will often cause a “friction rub”, a sound heard when auscultating the lower right costal margin with signs of PID such as forniceal tenderness or cervical motion tenderness. Noninvasive diagnosis of Fitz-Hugh-Curtis syndrome is made through the exclusion of other causes of upper right abdominal pain with laboratory data of pelvic infection with *Chlamydia trachomatis* or *Neisseria gonorrhoeae*. The only conclusive method of diagnosing Fitz-Hugh Curtis Syndrome is with laparoscopy showing “violin-string” adhesions between the liver and either the diaphragm or the anterior peritoneal wall. Antibiotic therapy is the mainstay treatment for individuals with Fitz-Hugh-Curtis syndrome. Although laparoscopic division of hepatic adhesions has been performed, there is insufficient clinical trial evidence to make specific recommendations.

## **P52: Case report: A rare case of a woman presented with a lump at vulva at the site of the paraurethral gland**

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**Case history:** A 34 year widow presented with a history of slowly enlarging lump in the vulva adjacent and to the right of the urethral opening. It had enlarged rapidly during one month period before the presentation. She didn't have urinary symptoms like dysuria, difficulty in voiding or pain. On examination there was a hemispherical shaped lump just posterior and right to the urethral opening without erythema with the size 1cm in

diameter. It was not tender to touch. The diagnosis of Skene's gland cyst was made on the clinical grounds and after a course of antibiotics it didn't resolved and offered the surgery to excise the cyst completely under general anaesthesia. The excised tissue was sent to the histological evaluation which revealed a fibrous cyst with its wall lined by stratified squamous epithelium with no evidence of dysplasia or malignancy confirming the clinical diagnosis. Post-operatively the patient recovered uneventfully. Skene's glands are a pair of gland present adjacent to the female urethra which is histologically homologues to the male prostate gland. The ducts of these glands can obstruct and result in cyst or abscess formation.

**Discussion:** The Skene's gland cyst is an uncommon pathology presents as a benign cystic lesion in the vagina which is usually presented in the third or fourth decade of life in a female which can be successfully managed with surgery. Differential diagnosis of urethral diverticulum, Gartner's cysts and deposits from gestational trophoblastic disease should be considered.

### **P53: Case history: A rare case of Fitz Hugh Curtis syndrome with an uncommon presentation**

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**Introduction:** The Fitz-Hugh-Curtis syndrome is an extra pelvic manifestation of pelvic inflammatory disease. Classically it consists of adhesions between the liver capsule and the diaphragm or the anterior peritoneal surface. It occurs as high as 14% of cases with pelvic inflammatory disease. Chlamydia trachomatis and Neisseria gonorrhoea regarded as the two major pathogens responsible. The mechanism of liver inflammation is not fully understood. In acute phase, usual complains are sudden onset severe right upper quadrant pain, sharp, pleuritic and most intense at the level of the right lower rib margin. Therefore confusing with acute Cholecystitis or pleurisy. On examination, right upper-quadrant tenderness is the most common finding. Lower abdominal tenderness being present in 20% of cases. Definitive diagnosis of Fitz-Hugh-Curtis syndrome is possible with non-invasive techniques such as ultrasound, computed tomography, as well as techniques for the isolation of the germ responsible. Therefore noninvasive diagnosis is desirable. Oral administration of appropriate antibiotics for adequate time duration can completely cure the disease.

**Case report:** A 27 year old mother of two admitted for laparoscopic ovarian cystectomy with a left sided ovarian cyst. She gave a history of severe left sided lower abdominal pain for two weeks duration. It was intermittent in nature, lasting 10- 15 minutes in each episode. No history of dysmenorrhea, dyspareunia, inter-menstrual bleeding or smelly vaginal discharge suggestive of pelvic inflammatory disease (PID) or endometriosis. History was not suggestive of urinary tract infection or urinary calculi. She had a single sex partner and her sexual history was otherwise unremarkable. She had no apparent past medical history of sexually transmitted diseases. Six months back she had treatments for lower abdominal pain with oral antibiotics for one week duration. On examination lower abdominal tenderness with left sided adenexal tenderness was noted. Trans vaginal scan showed left sided ovarian cyst 6cm x 5cm size with small amount of free fluid in Pouch of Douglas (POD). Urinary pregnancy test was negative and urine full report was normal. Other haematological investigations were normal. Laparoscopy was performed. Findings were, multiple filmy adhesion from uterus to lower anterior abdominal wall (Figure 01), left sided

simple ovarian cyst which was above to rupture, both ovaries were adhered to ovarian fossa by filmy adhesion bands, free fluid in the POD, uterus and both fallopian tubes appeared normal. Perihepatic multiple adhesion bands (Violin bands) detected and diagnosis was made as Fitz Hugh Curtis syndrome (Figure 02). Adhesions were separated around the liver and the uterus. Since Chlamydia trachomatis is the pathogen most often responsible for this syndrome, a single dose of azithromycin orally (1.0 g) and Ceftriaxone (1 gbd) intravenously (IV) for three days were empirically initiated immediately after establishing the diagnosis. Endocervical swab was taken for bacterial culture and antibiotic sensitivity following the laparoscopy. IV antibiotics followed by oral administration of Doxycycline (100 mg bd) and Metronidazole (400mg tds) for the next 14 days. Her endocervical bacterial swab culture found to be normal, her symptoms were completely disappeared after 14 days of treatment. Afterwards, she followed at the clinic and there were no recurrence of the symptoms or signs, indicating complete remission of the disease.

**Discussion:** Fitz Hugh Curtis syndrome can exist without typical symptoms and signs of it. Specially cases of PID where partially treated with antibiotics. Therefore women who are treating for PID need to be given appropriate antibiotics for appropriate time duration. This is a case which was diagnose by laparoscopy, giving the message of importance of routine visualization of liver in each and every case of routine abdominal and pelvic laparoscopic procedures.

### **P54: Case history: A successful pregnancy with a Dysgerminoma.**

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**Introduction:** Dysgerminomas are germ cell tumors of ovaries with excellent prognosis after surgery and/or chemotherapy. Dysgerminomas, unlike other tumors of the ovary affect females in the reproductive age group.

**Case history:** Our case was a 28 year old primigravida, married for two years, presented at 28 weeks of period of amenorrhoea to the antenatal clinic. Ultrasonographic examination revealed a pregnancy compatible with her dates and well differentiated heterogeneous mass in the pouch of Douglas, measuring 10cm X 12cm X 8cm and it was identified as a posterior uterine wall fibroid. No other abnormalities detected ultrasonically. Regular follow-up was carried out as she was asymptomatic throughout the period and an elective Caesarean section was performed at 38 weeks. A live male baby appropriate for the gestational age was delivered. Even though it was considered as a cervical fibroid ultrasonically, A large right ovarian mass was found with an intact capsule. A per-operative diagnosis of pregnancy with concurrent ovarian tumor (Stage 1a) was made and salpingo-oophorectomy was performed. Left sided ovarian biopsy was taken at the same time. Left side adnexa and other pelvic and abdominal structures appeared normal.

**Discussion:** Right ovarian tumour found to be a dysgerminoma histologically and the left ovarian biopsy was normal. She was given chemotherapy and oncology follow up was done accordingly. The rate of malignant tumors in the total number of ovarian tumors associated with pregnancy was reported from 1.3% to 7.9%. Dysgerminomas account for 1-5% of all ovarian malignancies in the first two decades of life. Approximately 80% of cases are reported in less than 30 years of age. Several cases of pregnancies after treatment of dysgerminomas with various modalities including surgery and chemotherapy, have been reported previously. It has reported that natural conception

is possible in case of germ cell tumors of the ovary, but natural course of pregnancy in cases of dysgerminoma is extremely difficult, due to large sizes of the tumors, irregular menstruation, and collection of fluid as well as tubal adhesions. Approximately 75% of women with a dysgerminoma present with clinical stage Ia disease. Dysgerminoma disease staged Ia (ie, confined within the capsule of only one ovary) is best treated with simple unilateral salpingo-oophorectomy and residual microscopic disease is extinguished readily with chemotherapy, to which these cells are highly responsive. The association of pure dysgerminoma and pregnancy did not adversely affect the tumor prognosis or fetal outcome. Malignant ovarian tumors associated with pregnancy tend to progress asymptotically and there are no differences with benign ovarian tumors in early stages. The best outcome for both mother and child depends on early diagnosis and excision of the ovarian lesion while it is still intact. The pathologic type and extent of ovarian carcinoma seem to be the most important determining factors in the maternal prognosis. Several authors have stated that once the existence of ovarian malignancy is suspected, immediate laparotomy is indicated regardless of the stage of gestation. But some supports a more conservative approach in younger pregnant patients, especially if the ovarian lesion is intact. The five-year survival rate for Stage Ia dysgerminomas is over 95%. The long-term outcome of patients with pure ovarian dysgerminoma is excellent. Dysgerminoma confined to a single ovary although large may not metastasize or seed the peritoneal cavity/fluid or other pelvic/abdominal organs and a natural course of pregnancy with viable child birth may still be possible.

### **P55: Case history: Radical hysterectomy for a recurrence of cervical cancer following primary chemo-radiation: Is it a valid option?**

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**Introduction:** Cervical cancer is the commonest gynecological malignancy in the developing countries. Standard treatment for beyond stage IIb is chemoradiation. Pelvic exenteration is the recommended treatment for recurrences following primary chemoradiation; but it is associated with high morbidity and mortality. Radical hysterectomy with pelvic node dissection in highly selected cases can give promising results.

**Case Report:** A 38 year old female was diagnosed with moderately differentiated adenocarcinoma of the cervix with clinical stage II B and given chemoradiation. Thirteen months after the primary treatment she was found to have a 1cm size recurrent lesion in the cervix. Histological assessment has confirmed recurrent adenocarcinoma. Contrast enhanced CT scan has excluded tumor extension to the rectum, bladder and lateral pelvic walls as well as distant metastasis. After careful counseling regarding the surgical morbidity we were able to perform a successful radical hysterectomy with bilateral salpingo-oophorectomy and pelvic lymphadenectomy, without significant surgical morbidity. Histological evaluation of the specimen has revealed free margins from the tumor with negative lymph nodes.

**Discussion:** Adenocarcinoma of the cervix is reported to be less radiosensitive than squamous cell carcinoma. Recurrences can be pelvic or with distant metastasis. Most patients who relapse locally after primary radiotherapy are not candidates for further radiotherapy, and pelvic exenterative surgery is the only potentially curative approach for these patients. It is known to have significant morbidity and mortality specially in whom

given prior radiotherapy. Ileal-conduit is associated with higher psychological morbidity and significant proportion of patients will have urinary tract and bowel associated morbidity. Although current available guidelines on management of cervical cancer recurrences does not provide the option of radical hysterectomy for central recurrences following primary radiotherapy there are two small studies reported on this option. In 1994 Robert et al after 50 cases of radical hysterectomies on pelvic recurrences, reported a 5 year survival of 90% in patients with an identifiable lesion less than 2 cm. However both these studies have reported a relatively high associated surgical morbidity with regards to fistula development, ureteral injuries and long term bladder dysfunction. Thus excessive morbidity limit its application only to highly selected patients at an early clinical stage with central recurrences of less than 2 cm in size and should be undertaken only by an experienced of pelvic surgeon. Patients with small recurrent cervical carcinomas following radiation therapy may be salvaged with radical hysterectomy rather than exenteration.

### **P56: Case history: Rare case of primary umbilical endometriosis**

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**Introduction:** Extra-pelvic endometriosis have been described in almost every tissue and organ and accounts up to 15% of all cases of endometriosis. Umbilical endometriosis represents 0.5% to 1% of all cases of extra-pelvic endometriosis. Umbilical endometriosis usually occurs secondary to surgical scars, but very rarely present as primary umbilical endometriosis (the presence of ectopic endometrial tissue located in the umbilicus in absence of previous surgery).

**Case history:** A 41 year old mother with previous two normal vaginal deliveries presented to the gynaecology clinic with the symptom of periodic bleeding from the umbilicus for five months duration. The bleeding was associated with her menstruation and continued throughout the menstruation. She also complained associated cyclical pain and swelling in umbilical area. She had no past surgical history of abdomen or pelvis. Examination revealed a brownish nodule in the umbilicus measuring roughly 0.5mm by 0.5mm. The patient was clinically diagnosed as primary umbilical endometriosis. She underwent excision of the nodule with reconstruction of the umbilicus. Histology confirmed the diagnosis of endometriotic tissue with the presence of endometrial glands. Patient was followed up at gynaecology clinic in three months' time and found to have asymptomatic.

**Discussion:** Management of umbilical endometriosis includes medical and surgical interventions. Medical treatment using progesterone, Danazol, and GnRH analogs has not shown reliable results. Almost 70% of patients required surgical treatment. Surgical excision of the lesion with sparing or reconstruction of the umbilicus is the ideal treatment of umbilical endometriosis

### **P57: Case history: Risk reduction gonadectomy in a patient with mosaic Turner syndrome**

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**Introduction:** Women with mosaic Turner syndrome (TS)

bearing the presence of Y chromosome material is at risk of gonadal malignancy. However mosaicism for a cell line with normal or abnormal Y chromosome is found only in 6-11% of mosaic Turner patients. We describe a patient with the characteristic features of this uncommon disorder, and in whom laparoscopic gonadectomy was performed.

**Case history:** A healthy 18-year-old student presented with primary amenorrhoea. On physical examination, height was 140cm. The breast and pubic hair showed Tanner stage II development. The external genitalia and hymen were normal. Transabdominal ultrasound examination showed the presence of uterus but the ovaries were not identified. The follicular stimulating hormone (FSH) and estrogen levels were compatible with ovarian failure. Karyotyping showed 45X/46XY

chromosome pattern. The diagnosis of premature ovarian failure due to mosaic Turner syndrome was made. Due to the presence of Y chromosome, gonadectomy was advised because of the risk of malignant change. During the operation, the uterus was present, both fallopian tubes were normal and both gonads were small and found in the lateral pelvic walls. Laparoscopic bilateral oophorectomy was performed. The histo-pathological examination of the specimen showed bilateral streak gonads with ovarian stroma. There was no testicular tissue. Postoperative hormone replacement therapy was initiated.

**Discussion:** The current recommendation is to perform gonadectomy to allow detection and prevention of malignant change in patient with Turner syndrome bearing Y chromosome.

### **P58: Case history: Steroid cell tumour: a rare case of hirsutism in a female**

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**Introduction:** Steroid cell tumors, not otherwise specified (NOS), are rare ovarian sex cord-stromal tumors with malignant potential. The majority of these tumors produce several steroids, particularly testosterone. Various virilizing symptoms such as hirsutism, temporal balding, and amenorrhoea are common in these patients.

**Case history:** We present a case of 27 year old woman, with 3 year history of secondary amenorrhoea, hirsutism, and virilization. Serum total testosterone level, 21.44 pmol/L (normal 8-7.4 pmol/L); DHEA-S, 1 µg/ml (normal 0.8-10.2 µg/ml) serum thyrotropin, prolactin, and cortisol values basal 17 hydroxyprogesterone, follicle-stimulating hormone and luteinizing hormone values were normal. Ca 125, and alpha-fetoprotein were within normal limits; Ultrasonography of the abdomen revealed left ovarian tumor, which was confirmed by contrast-enhanced computed tomography (CECT) of the abdomen showing a well-defined lesion, which measured 5x6 cm. The patient underwent right sided ovarian tumour removal. Histopathology revealed granular to eosinophilic tumor cells with a clear appearance, with a moderate amount of cytoplasm. Some of these cells had a vacuolated clear appearance suggestive of NOS subtype of steroid cell tumor. During the first month of the follow-up, the patient's serum testosterone was 4.36 ng/ml (2.93-15.93 ng/ml). She resumed her menstrual cycles within 2 months of the operation with regression of masculinizing signs.

**Discussion:** In a case of severe rapid hirsutism and virilization with serum testosterone level more than threefold of the normal range, neoplastic conditions should always be suspected. Steroid cell tumor in young women without evidence of malignancy

on histopathology has excellent surgical outcomes. Unilateral salpingo-oophorectomy is the surgery of choice.

### **P59: Case report: Takotsubo Cardiomyopathy following Septicaemia due to ruptured pelvic abscess**

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**Case history:** A 41-year-old female presented with increasing left lower abdominal pain of 1 day duration. On physical examination, the patient had a temperature of 39°C, heart rate of 88 beats per minute, and blood pressure of 110/70 mm Hg. Abdominal exam revealed bilateral lower quadrant tenderness to palpation with evidence of guarding. Laboratory findings showed an elevated C Reactive Protein of 269.1 mg/l with white blood cell count of 4100/mm<sup>3</sup> with a differential of 78.3% polymorphonuclear leukocytes. An ultra sound scan of the abdomen and pelvis confirmed a left ovarian mass of 5.3\* 4cm in size with a CA 125 value of 16.9 u/ml. The clinical diagnosis of pelvic abscess was made and the patient underwent Emergency Laparotomy. At Laparotomy, a ruptured left tubo ovarian abscess was found with disseminated pus in the peritoneal cavity. Abscess was drained and tubo ovarian mass excised. Peri operatively, she was started with intravenous Meropenem 1g TDS and Metronidazole 500mg TDS. Post operatively she continued the fever spikes and abdominal tenderness. Re laparotomy was performed on 7th Post operative day and a right sub phrenic abscess was identified and drained. She became dyspnoeic on post op day 18, and the X ray revealed mild to moderate pleural effusion bilaterally and 2D Echo revealed LV dysfunction with an Ejection Fraction of 25%, hypokinetic anterior septal, anterior wall and antero lateral wall suggestive of Takotsubo Cardiomyopathy. ECG showed v3-v6 T inversions suggestive of anterior myocardial infarction. Post op day 25-2D echo showed an improved ejection fraction from 25% to 40%. The treatment included Frusemide 40mg bd, Nebivolol 2.5mg mane, Aspirin 75mg nocte, Clopidogrel 75mg nocte and Ramipril 2.5mg nocte. The antibiotic therapy was changed to intravenous metronidazole (500 mg every 8 hours) and Co amoxyclav 1.2g 8Houly. The patient did remain afebrile, recovered.

**Discussion:** Takotsubo cardiomyopathy, also known as left ventricular apical ballooning syndrome, is typically characterized by transient systolic dysfunction of the apical and mid-segments of the left ventricle, in the absence of obstructive coronary artery lesions. As shown in this patient this is a rare but important condition to be aware in patients with pelvic sepsis.

### **P60: Case history: The Bartholin gland and Endometriosis – An unusual association**

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**Introduction:** Endometriosis is the presence of endometrial tissue in extrauterine sites, usually within the pelvis, but very rarely at distant sites. Extra pelvic endometriosis is a very rare condition. The exact aetiology remains unknown.

**Case Report:** A 49 year old woman presented with a tender mass at the vulva. She was multiparous and reported regular menstrual cycles. The patient had noticed a lump at vulva two years ago, which continued to be painful and increase in size gradually without resolution. She described cyclical pain and swelling



with a pressure like sensation during her menstrual periods. She also reported dysmenorrhoea. She had a large cystic mass (size 10x7.5 cm) in the labium minus, extending into the labium majus. During surgery, chocolate material was drained from the mass. Cystectomy was done and cyst wall was sent for histopathology. It revealed that the cyst was infiltrated with endometriosis.

**Discussion:** Endometriosis is usually found in the pelvis, but lesions in many extra pelvic organs (e.g. lungs, brain, skin, external genitalia) have been reported. The infiltration of endometriosis in to the Bartholin gland is very uncommon and few cases have been reported. Halban's theory suggests that distant endometriosis occurs via vascular or lymphatic spread of viable endometrial cells and explains the rare extrapelvic endometriosis. Rarely dysmenorrhoea may be associated with symptoms due to extrapelvic endometriosis (e.g. sciatica, groin pain, haemoptysis, chest pain). Other rare associations include bleeding, swelling and/or pain at uncommon sites affected by endometriosis. Cyclical pain with a palpable mass is the most common presenting symptom of extra pelvic endometrioma. It may resolve spontaneously. Gocmen et al. described a case of endometriosis infiltrating the Bartholin gland. The clinical diagnosis was made during the operation when chocolate-coloured fluid poured into operation field. Extra pelvic endometriosis affects middle aged women and appears most commonly (>70% of cases) on scars over the abdomen, the perineum, the inguinal area and the vulva. Computed Tomography and Magnetic Resonance Imaging may be helpful in the diagnosis. Surgical excision is the treatment of choice for the extra pelvic endometriosis. Complete excision prevents recurrence.

### **P61: Case history: Unusual gynaecological presentation of a haematological malignancy**

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**Introduction:** Ovarian lymphomas present as solid ovarian tumours and represent a rare scenario in which the FIGO classification for ovarian malignancies does not apply. Lymphomas presenting as ovarian tumours are uncommon and may occur de novo or secondary to systemic disease.

**Case history:** A 32 year old woman presented with heavy menstrual bleeding of four months duration. On examination she was anaemic with no palpable lymph nodes. A 24 week size uterus and three firm paravaginal nodules were found on examination. Ultrasound suggested a fibroid uterus with two large pedunculated fibroids. Endometrial sampling and biopsy of the vaginal nodules were done after pre-operative optimization.

She presented a week later with an undulating fever, features of acute abdomen with clinical evidence of ascites. An emergency laparotomy revealed two solid ovarian masses measuring 20X15cm and 15X10 cm, gross ascites, omental deposits, a bulky 24 week size uterus, and enlarged pelvic para-aortic and mesenteric lymph nodes. Bilateral oophorectomy was done. Laboratory investigations revealed LDH 2250 IU/L with normal

serum  $\beta$  hCG, AFP and CA 125 levels. Histology of ovarian specimens and cytology of ascetic fluid revealed a diffuse large B cell lymphoma. CT-chest, abdomen and pelvis reaffirmed the operative findings. The bone marrow biopsy revealed more than 80% infiltration with lymphoid cells. Immunohistochemistry of the ovary revealed focal CD20 staining and nuclear positivity for Tdt and scattered CD 3 positivity. The diagnosis was reclassified as B cell lymphoblastic lymphoma stage IV B based on the Ann Arbor staging system and she was started on acute lymphoblastic leukaemia (ALL) treatment protocol.

### **P62: Case history: Vulval Crohn's Disease – complicated with an unhealed episiotomy; a rare case presentation**

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**Introduction:** Crohn's disease is a chronic inflammatory disorder commonly affecting the ileum but has the potential to involve any part of the gastrointestinal tract from mouth to the anus. It has several well-known extra intestinal manifestations such as uveitis, sacroiliitis, migratory polyarthritis, erythema nodosum and bile duct inflammatory disorders. Vulval manifestations are less commonly observed and have primarily been discussed in case reports or small case series. Reports on Vulval Crohn's in pregnancy are even rarer. We report a case of Vulval Crohn's disease which was later complicated with an unhealed episiotomy following delivery.

**Case report:** 25 year old primi with Crohn's disease on remission was presented to our antenatal clinic at 12/52 of POA. Initially she was presented with some growths in vulva with superficial erosions and yellowish discharge. There were some oral ulcers but she did not experience any bowel symptoms. Colonoscopy showed a thickened and ulcerated anal canal. Skin biopsies from the vulval growths and anal ulcer biopsies showed granulomatous inflammation where she was given the diagnosis of Crohn's disease with extra intestinal manifestations. She was treated with Prednisolone, Azathioprine and Sulfasalazine resulted in a good response. As she had recurrences of vulval and anal ulcers she was treated with Infliximab with Azathioprine and Sulfasalazine in 2010. She was in remission since 2011 and on low dose Prednisolone when become pregnant. There were some vulval growths in the perineal region. Her routine investigations and anomaly and growth scans were normal. She went into spontaneous onset of labour and delivered a healthy baby weighing 2.95 kg at full term. A medio-lateral episiotomy was given. She was discharged 2 days after delivery. She returned with complete gaping of the episiotomy 12 days later. There were few unhealthy areas in the wound but the gaping was proportionately higher with regard to them, raising the suspicion of another mechanism causing poor healing. She was afebrile and CRP was marginally raised. Swab culture from the wound was negative for organisms. She was started on oral antibiotics; Cefuroxime, Metronidazole and oral prednisolone was continued. When the wound was healthy delayed secondary suturing was done. She was discharged with oral Prednisolone and Metronidazole, resulting in complete wound healing in about 3 weeks' time. Most frequent presentations of vulval Crohn's are labial swelling, erythema and pain. It may present with hypertrophic lesions, vaginal discharge, abscesses, ulceration, pruritus, fissuring and

fistulae as well.

**Discussion:** Vulval lesions in Crohn's are often clear of the anal margin; hence they are referred to as "metastatic lesions". The treatment of vulval Crohn's disease relies mainly on medical therapy. Oral Metronidazole alone (71.4% of success) or combination with Prednisolone (87.5% of success) seems to be the most effective. Surgical treatment (local excision) is mainly limited to cases resistant to medical therapy and its success rate is only 36%. **Recurrences and poor wound healing** are the main reasons for this low success rate. Poor wound healing associated with the vulval Crohn's may be the reason for the gaped episiotomy (Delayed healing) seen in our case. Oral metronidazole with prednisolone markedly improved her wound and aided the successful secondary suturing. In conclusion it is worthwhile to avoid episiotomies in patients with vulval Crohn's as much as possible in order to combat the delayed healing associated with it.

### **P63: Case history; Coitus induced transvaginal evisceration of bowel in a post hysterectomy woman**

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**Introduction:** Vaginal and abdominal gynecologic surgeries can be rarely complicated by bowel evisceration post operatively. Here, we report a case of post coital vaginal evisceration in a forty seven year old woman who had undergone ascending vaginal hysterectomy three years back for adenomyotic uterus with hypertrophic elongated cervix.

**Case history:** She presented with a serous vaginal discharge and reddish lump protruding through vagina and evaluation revealed a herniated 30 cm sized viable loop of small intestine at introitus. She was clinically stable following wet towel wrapping of bowel, opioid analgesia and broad spectrum antibiotics. An urgent midline laparotomy was performed in collaboration with surgical team. Rupture of vaginal vault with ileal herniation was noted and bowel reposition and vault resuturing was done. The patient's recovery was uneventful and was normal at follow-up visit.

**Discussion:** Poor technique, postoperative infection, hematoma, coitus, radiotherapy, corticosteroid therapy, trauma and Valsalva maneuver are known risk factors for vaginal rupture following hysterectomy. Total laparoscopic-assisted hysterectomy and robotic-assisted total laparoscopic hysterectomy are associated with higher rupture risk than conventional methods. Coitus induced injury may be due to asymmetric anterior-lateral cervical positioning during the excitement phase exposing the fornices to phallic thrusting, disproportion in genital organ sizes and loss of inhibition due to pleasure. Vaginal evisceration, despite being rare once it occurs should be managed as a surgical emergency as it can result in life threatening blood loss, peritonitis, intestinal obstruction and ischemia. Therefore, vaginal rupture and evisceration must be considered in women presenting with acute vaginal bleeding, pelvic pain and protruding mass particularly in women with past hysterectomy. Following initial evaluation and stabilization, bowel repositioning should be performed by vaginal, abdominal or combined surgery.

### **P64: Contraceptive knowledge and attitude among staff of District General Hospital – Mullaithivu**

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**Objective:** To assess the knowledge and attitude on contraception among staff of District General Hospital – Mullaithivu.

**Method:** A cross-sectional descriptive study was done in District General Hospital Mullaithivu in June 2015 using a pretested self administered questionnaire.

**Results:** Out of 60 participants 10 were doctors, 33 were nurses and 17 were midwives. Majority had a good knowledge on who need contraception which is 68 % in average. The knowledge on permanent and short acting reversible methods was good which was from 62 % to 90%, but knowledge on long acting reversible (LARC) methods was very poor in all categories which were less than 20 %. Majority did not know best time for counseling; highest knowledge was among nurses which was 42%. All participants knew who should counsel. None of them knew IUCD is a method of emergency contraception (EC) but all knew about prostin. Their knowledge on contraceptive failure, contraindications, side effects and non-contraceptive benefits were poor which was less than 32%.

**Conclusion:** Knowledge on contraception in general was inadequate, and this was most significant regarding the when to counsel, LARC, EC, failure rates, contraindications, side effects and non-contraceptive benefits.

### **P65: Case history: Ovarian carcinoma disguised as ovarian hyperstimulation syndrome- a diagnostic dilemma.**

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**Introduction:** High-grade serous epithelial ovarian cancer is the commonest (70%) of malignant epithelial tumours. Subfertility and ovulation induction are recognised risk factors. Ovarian hyperstimulation syndrome (OHSS) is an iatrogenic complication of ovarian stimulation. PCOS appears to be a major predisposing factor.

**Case history:** We present the case of a 38 year old female, investigated and treated for primary subfertility for 8 years, who presented to the Professorial Gynaecology unit, Colombo South Teaching Hospital with abdominal distension for 9 days. She also had vomiting, loss of appetite, diarrhoea, shortness of breath and reduced urine output. Over the past 8 years she had taken unsupervised fertility treatment with clomiphene citrate and monthly hCG injections. Lap and dye test had shown grossly polycystic ovaries and ovarian drilling had been performed. On examination she had right sided pleural effusion and ascites. Ultrasound scan showed ascites with fluid in the hepatorenal pouch, and a solid/cystic mass in the pouch of Douglas. Serum albumin was low. She was initially managed as severe to critical OHSS. Repeated peritoneal taps for symptomatic relief contained blood only. Despite fluid management, adequate monitoring and deep vein thrombosis prophylaxis she was refractory to treatment. Therefore a contrast enhanced CT scan of abdomen and pelvis was done which showed a multilocular cystic lesion with enhancing septae and solid components suggestive of malignancy. CA 125 was normal. She underwent right sided oophorectomy with preservation of left ovary as it was normal. Histopathology revealed a high grade poorly differentiated serous carcinoma of the ovary, involving the ovarian surface. She was referred to the oncology clinic, CSTH for further management.

**Discussion:** This case highlights the importance of considering ovarian malignancy as a differential diagnosis for OHSS which is

not responding to treatment, and of education about the possible risk of malignancy in repeated ovulation induction.

### **P66: Stromal luteoma of the ovary as a cause of persistent postmenopausal bleeding with endometrial hyperplasia.**

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**Introduction:** Persistent postmenopausal bleeding is often difficult to manage and may necessitate hysterectomy, especially in the presence of endometrial hyperplasia not responding to medical treatment. We report a case of persistent postmenopausal bleeding with endometrial hyperplasia secondary to a stromal luteoma (SL).

**Case report:** A 72-year-old woman presented to the gynaecologist with recurrent postmenopausal bleeding. She had a thickened endometrium (8mm) on ultrasound. The endometrial biopsy demonstrated simple hyperplasia with cellular atypia. As she had multiple co-morbidities increasing anaesthetic risk, progestogen therapy was commenced with a Levonorgestrel intrauterine system. The bleeding did not respond to medical treatment hence a total hysterectomy with bilateral salpingo-oophorectomy was offered.

The endometrium showed a diffuse polypoidal thickening. The left ovary showed a well-defined multinodular brown-solid lesion measuring 2.5cm. The histology of the endometrium showed irregularly out-pouched and atrophic glands lined by a secretory-type epithelium lying in a markedly pseudodecidualized stroma compatible with endometrial hyperplasia treated with progestogens. The ovarian lesion was composed of islands and cords of hexagonal cells containing round nuclei and eosinophilic cytoplasm containing lipofuscin pigment, featuring a SL. Reinke's crystalloids were not identified. Both ovaries showed stromal hyperthecosis.

**Discussion:** Steroid cell tumours accounts for less than 1% of all ovarian tumours and 20% of them are grouped as stromal luteoma (SL), which is a benign tumour that originates from the ovarian stroma. SL often present with effects of high oestrogen levels including postmenopausal bleeding. The unopposed action of increased oestrogen facilitates endometrial proliferation, and both hyperplasia and carcinoma have been reported. Whether the condition could be diagnosed pre-operatively, through imaging, is not clear.

### **P67: Ureteral Endometriosis: A Case Report**

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**Introduction:** Endometriosis is presence of endometrial glands outside the uterine cavity. Extragenital endometriosis is less common; and it can be found in almost any tissue in the body. Urinary tract endometriosis is found 1-4% of women with pelvic endometriosis. Eighty to ninety percent of these are on the bladder and the rest are ureteral endometriosis. Endometriosis of the kidney is extremely rare. Ureteral endometriosis particularly important as it may cause obstruction of the ureter and which leads to functional loss of a kidney. We are reporting case of intrinsic ureteral endometriosis in a nulliparous woman.

**Case history:** A 32 year old nulliparous woman presented to

our gynaecology clinic with severe lower abdominal pain and dysuria during the menstrual periods for six month duration. Eventhough, trans-vaginal ultrasound scan did not showed any gynaecological pathology, in urine full report indicated field full red cells. Urine culture was negative. She did not have symptoms which compatible with renal calculi. Following month patient attended tom gynaecology clinic with gross haematuria, which started two days prior to the menstruation. Patient was referred to genitor urinary surgical team and patient undergone cystoscopy and ureteroscopy and found to have a nodule at the internal aspect of the right ureter closer to the ureteral orifice of the bladder. Histology of the nodule confirmed the diagnosis of intrinsic ureteral endometriosis.

**Discussion:** Ureteral endometriosis is a rare disorder that can eventually lead to renal failure. In endometriosis, the ureteral involvement can be limited to a single ureter or which may be involved both ureters. Obstruction of the ureter with endometriotic tissues leads to hydroureter and hydronephrosis. The obstruction of the ureter can be caused by external endometriosis as well as intrinsic endometriosis. Progressive ureteral obstruction can be insidious in onset and can ultimately lead to renal failure if a correct diagnosis is missed. However, while renal imaging is useful in the cases of extrinsic endometriosis, the diagnosis of intrinsic endometriosis often requires ureteroscopy or laparoscopy. The prognosis of ureteral endometriosis depends on the time of diagnosis. Although some patients may benefit from progesterone therapy, in most cases of ureteral endometriosis surgery is needed, laparoscopy surgery being preferred today to laparotomy.

### **P68: An audit on facility and community based postpartum family planning interventions, across three points of contact: Antenatal, Perinatal and Postnatal**

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**Objectives:** To audit the implementation of postpartum family planning (PPFP) interventions at facility based and community based levels across three contact points: antenatal, delivery/pre-discharge and postnatal.

**Methods:** An audit cycle was conducted over a period of three months at CSHW, reviewing antenatal records and interviewing 106 pregnant women admitted for delivery, on discharge and at 8 weeks postpartum. Guidance in "Maternal care package-2011" of Family Health Bureau Sri Lanka and in WHO publication "Programming strategies for postpartum family planning-2013" were used as gold standards.

**Results:** In terms of fertility wishes 53(50%) women needed to space, 39(36.8%) to limit and 14(13.2%) were not sure. 70(71.7%) women had received information and counseling regarding PPFP during antenatal period at community level and 44(41.5%) at the hospital. Only 32(30.2%) antenatal records had documentation on PPFP counseling and method selected. 56 (52.8%) husbands were not involved in antenatal PPFP counseling sessions at any level.

Only 7 (6.6%) women had detailed counseling before discharge and it has been casually reminded in 55(51.9%) women. On discharge 20(18.9%) have already started a method of contraception and 53(61.6%) out of others had a decision on a PPFP method. However 33(62.3%) women were not certain about when to commence.

At postnatal review, 46(51.1%) mothers were not using any modern method of contraception and 20 (43.5%) of them had not fulfilled the criteria for lactational amenorrhoea method (LAM).

**Conclusions:** Implementation of recommended PPF interventions was not up to the expected standard. In-service training sessions, check list to complete at discharge and postal reminder to both clients and to community health care providers were introduced. A re-audit is planned after 6 months.

### **P69: Hypertrophic elongation and prolapse of the cervix during pregnancy: a case report**

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**Introduction:** Prolapse of the uterine cervix during pregnancy is an uncommon. Overall incidence, 1 case per 10,000 to 15,000 deliveries. Complications included discomfort, cervical desiccation, ulceration, urinary tract infection, acute urinary retention, miscarriage, preterm labor, and even maternal death. The management of pregnancy, labour, and delivery varies considerably.

**Case report:** 40 year old woman in her second pregnancy presented with a painless lump at introitus at 26 weeks of gestation. Her previous pregnancy was uncomplicated. She was a healthy lady and did not have any features of pelvic floor dysfunction. She noticed the lump one week back. It appeared with straining and disappeared with lying down. On examination- soft lump, measuring 6cm × 5cm. Cough impulse also elicited. It felt to be arising from the anterior lip of the cervix. The possibility of uterine sacculation or cystocele was excluded by doing vaginal examination, transvaginal scan and urinary catheterization. Finally the tentative diagnoses were taken as cervical growth or a cervical prolapse. Reassuring done and 71 mm size silicone vaginal ring pessary inserted. Routine antenatal follow-up was done. During each visits vaginal examination performed to ensure the correct position of the pessary. At 37 weeks, she was readmitted with labour pains. Pessary was removed. Cervical mass reappeared with bigger size than earlier. An oedematous cervix was entirely outside. Cervical OS was 4 cm dilated and taken into the labour ward. After 12 hours she underwent emergency caesarean section due to lack of progression. Following delivery, cervical mass remained outside (Figure 01,02) and it was difficult to reduce in. Therefore it was excised and sent for histology. Postpartum period was uneventful. Follow-up review at 4 weeks- no evidence of uterine prolapse, cervix was completely healed and the patient did not report any complains. Additional follow-up reviews planned at 6 and 12 months. Histology revealed hypertrophic cervix in pregnancy.

**Conclusion:** Woman with a lump at introitus in pregnancy need to be managed in mind of possible differential diagnoses. Even though the cervical hypertrophy and cervical prolapse is a rare event, Obstetricians should well aware of potential complications. Careful monitoring is essential. Management should be individualized, depending on the gestational age, severity, duration and the patient's preference. vaginal pessary may be helpful to avoid complications and should be considered during patient counseling. However, the optimal management guidelines for this rare condition are currently unclear.

### **P70: A rare case of postmenopausal Virilization due to ovarian hyperthecosis**

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**Introduction:** Postmenopausal hyperandrogenism is a state of relative or absolute androgen excess originating from either the adrenals or the ovaries, clinically manifested as the appearance of an increase in terminal hair growth or the development of symptoms and signs of virilization. In either setting, physicians need to evaluate such patients and exclude the presence of the relatively rare but potentially life-threatening underlying tumorous causes, particularly adrenal androgen-secreting tumors.

**Case history:** A 61 year old female who underwent menopause 10 years ago presented with virilization with androgenic alopecia and hirsutism. On further investigations her testosterone was found to be high and her DHEAS level was low. Her 17-OHP was in the normal range and low dose dexamethasone suppression test (LDDST) showed suppression of the adrenal gland. After the finding of mildly enlarged bilateral ovaries on ultrasound scan and inability to do adrenal and ovarian venous sampling she underwent hysterectomy and bilateral salphingo-oophorectomy. The histological sample showed ovarian stromal hyperthecosis. Postoperatively serum testosterone was normalized with significant clinical improvement.

**Discussion:** Postmenopausal hyperandrogenism can be the result of numerous etiologies ranging from normal physiologic changes to ovarian or rarely adrenal tumors. Our patient was found to have stromal hyperthecosis which is rare and seen mostly in postmenopausal women.

### **P71: A rare case of cornual ectopic pregnancy ruptured at 19 weeks of gestation.**

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**Introduction:** Cornual pregnancy is a rare form of ectopic pregnancy and usually do not advance beyond 12 weeks. They last longer than tubal pregnancies as they occur in the more stretchable interstitial part. Rupture of cornual pregnancies can lead to life threatening haemorrhage due to increased vascularity. The mortality of it is twice as high than with ruptured tubal ectopic pregnancies.

**Case history:** We report a where a primi mother presented at 19 weeks plus one day of gestation with acute onset severe abdominal pain and haemodynamic instability and found to have a ruptured right sided cornual ectopic pregnancy on laparotomy. She had undergone an ultrasound scan at 12 weeks of gestation and the cornual pregnancy was not appreciated at that time. The cornual rupture was successfully sutured during the surgery.

**Discussion:** Correct identification of intrauterine pregnancy at an early ultrasound scan is important to prevent such incidents.

### **P72: A study on accuracy of estimated fetal weight assessment by USS at term**

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**Introduction:** Knowing the size and parameters of the fetus is vital in taking decisions regarding the time and mode of delivery.

It is helpful to deliver early in cases such as Fetal growth restriction, GDM with macrosomia etc. and at the same time to decide the mode of delivery in cases such as Breech presentation, macrosomia, scarred uterus etc. Extremes of fetal weight is also associated with higher risk at delivery, which can lead to fetal hypoxia, shoulder dystocia, post-partum haemorrhage etc. The fetal size is estimated by using the estimated fetal weight which can be obtained by ultra sound scans (USS). Fetal biparietal diameter (BPD), head circumference (HC), femur length (FL) and abdominal circumference (AC) are essential parameters for the estimation of prenatal fetal weight, and of them, AC is a parameter with the highest sensitivity. Studies have revealed that estimation with multiple parameters may be more accurate as compared to that with a single parameter. Third-trimester ultrasound scans have at least a 10% margin for error for actual birth weight. However in certain occasions, there is a significant difference between the estimated fetal weight and the actual birth weight. The aim of this study is to check whether the estimated weight measurement by USS at term is accurate enough to take important decisions. To ensure that the estimated weight measurement by USS at term is accurate enough to take important decisions

**Method:** This study was conducted as a retrospective analytical study. All the antenatal admissions for confinement, to ward 09 Castle Street Hospital from 1st January 2015 to 31st January 2015 were included in to the study sample. Patients who were already admitted by 1st of January, subsequent admissions during the same month, admissions other than for confinement, patients who didn't had a recent scan (within 2 weeks prior to delivery) and preterm deliveries (< 37 weeks) were excluded. Scans done by the Radiology department, VOG, Registrars and SHOs were considered. USS s done within two weeks prior to confinement were taken in to account (n=171). A margin of error of +/- 10% was considered normal for the estimated fetal weight. Following delivery, the actual birth weight was compared with the ultrasonically estimated fetal weight. Data collection was done using the admission notes, antenatal records and the Bed Head tickets. Data were entered in to a data collection sheet and confidentially stored in an ongoing computer database. The data presented in tables and charts and was analyzed using SPSS g

**Results:** 105 (61.4%) out of the study sample (n=171) had ultrasonically estimated weights, which were matching with the actual birth weight. However 66 (38.6 %) out of the study sample had estimated which were not compatible with the actual birth weight of the baby. There were minor differences between the sonographer categories (Radiology department, VOG, Registrar, SHO) which were statistically not significant.

**Conclusion:** Although 105 (61.4%) out of the study sample had accurate weight estimation, still there is a significant number with inaccurate estimated weight. Accuracy of the scans has to be improved to achieve the best outcome of antenatal care

### **P73: A successful term pregnancy in a uterus didelphys**

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**Introduction:** Uterus didelphys is a rare form of uterine malformation that occurs due to incomplete fusion of the Mullarian ducts during embryonic development. The malformation can give rise to various degrees of duplication of uterus, cervix and the vagina. Uterus didelphys occurs in 0.1- 0.5% of the healthy fertile population and mostly go undiagnosed. Pregnancy in such a uterus has a risk of failing without progressing till term due to the increased chance of spontaneous abortions and preterm labour. Those that extend till term has a higher incidence of malpresentations.

**Case history:** We present a rare case of a 30 year old primi who got admitted at 39 weeks plus 6 days of gestation. She didn't have any history of subfertility, threatened miscarriage or preterm labour. On examination the fetal presentation was cephalic and the head was engaged. Induction of labour was done at 40 weeks plus 1 day of gestation and the cervix didn't dilate beyond 4cm despite adequate augmentation. Though the head was engaged the lie of the fetal body was always oblique towards left side. A 3.1kg baby was delivered by caesarean section due to lack of progress of labour and a double uterus with the pregnancy on left side and a normal size uterus on right side was noted during the surgery. The patient had only one cervix and vagina and the right uterus didn't seem to be canalized.

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