

## 45<sup>th</sup> Annual Scientific Sessions of the Sri Lanka College of Obstetricians and Gynaecologists

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"Investing in women's health"

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## **ABSTRACTS**

Edited by Dr. Sanath Lanerolle

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## PLENARY LECTURES

## PL 01: Saving mothers' lives - Transforming strategy into action

#### Professor Sir Sabaratnam Arulkumaran

Professor and Head of Obstetrics & Gynaecology, St George's Hospital Medical School, Cranmer Terrace, London SW 17 0 RE

Twelve years ago, the world united around Millennium Development Goal 5 (MDG 5) and committed to improving maternal health and reducing maternal mortality by 2015 to a level just 25% of the 1990 level. The basis for this initiative, recognized by country leaders, is that the health of nations rests upon the health of mothers. Moreover, saving a mother's life is not only intrinsically valuable; the impact extends to her family, her community and her country as a whole.

Since the launch of MDG 5, dramatic progress has been made in saving women's lives. By 2010, maternal mortality had declined by 47% from the 1990 baseline. This success reflects the extraordinary dedication shown by numerous stakeholders within countries, from grassroots, NGOs to professional associations and from international donors to political leaders. However, even with this remarkable improvement, more than 780 women around the world still die every day from pregnancy - or childbirth - related complications, even though more than 80% of these deaths are preventable. While admiring the great progress made so far, we have to recognize that the current pace of improvement is insufficient. If it continues unchanged, nearly 90% of countries will fail to meet MDG 5 on time and more than half will probably still fall short in 2040.

Maternal mortality remains one of the most unbalanced health indicators in the world, with 99% of deaths occurring in low- and middle-income countries. But the good news is that the handful of countries that have really transformed their record are drawn from every region of the world and every stage of economic development. In fact, almost half of the countries on track to meet MDG 5 have a per-capita GDP below \$1,000.\* Of course, their impressive improvement is often due in part to their starting point of very high maternal mortality, but their achievement still shows that a low level of economic development does not represent an insurmountable barrier to saving women's lives.

The success of individual countries gives us cause for hope. It argues that all countries have the ability – as well as the responsibility – to make real and lasting improvements to maternal health. I shall explore the success factors at work in various countries, so that they can be tried elsewhere. This information will be applicable to countries at all stages of the journey to meet MDG 5 – from countries that are just starting to gather momentum for change to countries that are in the "final mile" of optimizing maternal health. The information is presented in the following forms: a set of five guiding principles for improving maternal health; a shortlist of critical initiatives; and a checklist of progress-friendly tasks that can be carried out tomorrow.

## PL 02: Thyroid dysfunction in pregnancy

## **Professor W W Sumpaico**

Phillipines

## PL 03: P Dissanayake Endowment Lecture

## **Professor A D Falconer**

President,

Royal College of Obstetricians & Gynaecologists

## **SESSIONS**

AOFOG Session: Placenta Accreta - The emerging nightmare for the Obstetrician

Incidence, etiology, pathology & management of placenta accreta through the pregnancy

#### Dr Jaydeep Tank

Consultant Obstetrician & Gynaecologist, India

## Imaging in placenta praevia Dr Tiran Dias

Consultant Obstetrician & Gynaecologist, Sri Lanka

## Methotrexate in the management of placenta praevia

**Professor W W Sumpaico** 

Consultant Obstetrician & Gynaecologist, Phillipines

# SAFOG Session: Why mothers still die of pre-eclampsia / eclampsia in our region?

## Why mothers still die due to PIH in Sri Lanka?

#### Dr Lakshman Senanayake

Consultant Obstetrician & Gynaecologist, Sri Lanka

Sri Lanka has achieved a notable success in reducing maternal mortality within a low resource setting . Far reaching policies which improved education and other determinants of maternal health along with the availability of free health service, provided through robust preventive and a curative health system was the key to this success .

In the 19<sup>th</sup> century hypertension and eclampsia was the leading cause of maternal deaths. Still hypertensive disease is only second to post partum haemorrhage as the leading cause of maternal death in Sri Lanka. Achievement of 100% registration of pregnant women and efficient antenatal surveillance has improved the early detection of hypertension and referral. This has lead to a reduction of some of the severe complications of hypertension such as eclampsia ,However mortality from complications such as HELLP syndrome continues to be major contributors to maternal deaths.

Therefore it is important to recognize that the future interventions to reduce mortality should shift from antenatal surveillance to provision of improved facilities for critical care both for the mother and the neonate ,as it is the quality of neonatal support that is available to the obstetrician that influences the decision to deliver the premature baby and thereby stop the progress the condition.

## Why mothers still die due to PIH in India?

#### Dr A Kumar

Consultant Obstetrician & Gynaecologist, India

# Strategies to reduce maternal morbidity & mortality due to PIH in the region

### **Dr Suchitra Pandit**

Consultant Obstetrician & Gynaecologist, India

## **RCOG Session: Training in UK - Opportunities & Challenges**

#### Professor Sir Sabaratnam Arulkumaran

President, FIGO

#### Professor A D Falconer

President, RCOG

## FIGO Session: Maternal Mortality Maternal mortality - Sri Lankan perspective

#### Dr Hemantha Perera

Sri Lanka

Since inception, SLCOG has focused its attention on the reduction of Maternal Mortality in Sri Lanka. With the united forces of all stakeholders, we, the SLCOG members can be justly proud of achieving significantly low Maternal Mortality rates very early. However, the usual complacence of the bureaucracy set in with the now blatantly obvious stagnancy of the MMR for decades.

SLCOG believes our MMR should be in single digits. We know how to reach this goal. The salient question is whether the Health administration is having capable far thinking people who can pin point the immediately rectifiable areas.

For a glaring example, we keep on talking about criminal abortion. I am not even bringing up the ever important issue of PPH as it appears futile when the preventive sector does not know that no mother should reach delivery point without a Hb of more than 10g/dl.

In a country where all nearly 400,000 women deliver in an institution, the system is unable to provide the necessary plan for a definitive contraceptive method, but is trying to catch the abortionists who are in fact, providing the curative service in lieu of the ailing preventive service.

Sri Lanka needs vision, planning and execution of an Intelligence service like parallel in maternity care to reach the SLCOG goal of "No mother should die from a preventable cause during childbirth". Unfortunately the horizon is empty. It is about time to recognize and replace incapability. Let us stop talking, reinventing wheels but do what has to be done.

## Maternal mortality - Global perspective

#### Professor Sir Sabaratnam Arulkumaran

United Kingdom

The world leaders took a bold step at the turn of the century and identified eight millennium development goals. The goals were well defined and it was to make the world a better place to live and to improve the lives of everyone. Goal 1 was to eradicate poverty; Goal 2 was for provision of universal education; goal 3 for gender equality; goal 4 is reduction of child mortality; child 5 is reduction of maternal mortality and goal 6 was reduction of deaths from Malaria TB and HIV/AIDS. These goals are interlinked. Poverty, lack of education and gender equality contributes goals 4, 5 and 6. If maternal mortality is reduced it will help to improve the others. World has to congratulate itself for reducing maternal mortality of 543,000 in the 1990 to 287,000 in 2010. However we will not achieve the 75% reduction which was the goal by 2015. Hence we could continue the efforts and we can achieve the desired goal in a few further years.

Success in reduction has been in poor countries and large sums of money were not needed to achieve this. Analysis of the countries that has achieved success suggests that we need to adopt five principles.

- 1. Maternal health must be made as National priority by building coalitions between likeminded organisations and the government.
- 2. Countries should focus on few targeted initiatives.

- 3. People at the grass root level should be inspired and they should be empowered and supported to invent solutions that are acceptable and appropriate for them.
- 4. Innovative processes should be the key to bring about the desired change with limited man power, supplies and infrastructure. This should be by public private partnership, charities or voluntary organisations. Innovation also could be task shifting or task sharing like the surgical assistants to do caesarean sections in Mozambique.
- 5. Measurement of process and outcome indicators to make the organisations and people accountable to themselves and to keep on improving on their performance. Recognition and rewarding success enhances better performance.

Various countries have adapted strategies to overcome barriers in the maternity eco system – availability, affordability, accessibility and appropriateness. Examples include mini credit systems, maternity coupons, maternity homes for women to be close to the unit till they deliver emergency transport arrangements etc. Some of the excellent examples from one country can be adopted by the other. Contraception, safe abortion care and obstetric care both antenatal and intrapartum emergencies are the signal functions in each and every unit if we are to reduce the maternal deaths any further. It is estimated that we could eliminate 30% of maternal deaths by enhancing the availability of contraception. Haemorrhage is the major cause of maternal deaths amounting to around 35%. Postpartum haemorrhage can be prevented by sublingual misoprostol and treated if it occurs by medication and simple surgical techniques of tamponade and compression sutures which not only stops haemorrhage but preserves fertility.

The International Federation of Obstetrics & Gynaecology FIGO is determined to assist National Societies and engage with Governments and non-Government organisations to progress our agenda of reducing maternal deaths.

## **Confidential enquiry - UK format**

#### Professor A D Falconer

United Kingdom

Social determinants of health are becoming major drivers for health care design. The transformation from treatment to prevention are fundamental principles.

The lecture will explore such changes drawing on the fundamental principles of UK based healthcare but will also use demographic data from Sri Lanka.

## How maternal health contributes to maternal mortality

#### **Professor Jim Dornan**

United Kingdom

Psychiatric causes are the fourth commonest cause of MM in the UK, and have been consistently so for the past decade. In over half of cases, sub standard care can be attributed. Suicide makes up almost 50% of cases, and most are from 42 days post partum until 182 days. Accidental overdose and medical conditions make up the rest.

Of those who commit suicide, about one third are associated with psychosis and one third with drug dependency. The commonest methods used are hanging, jumping and self immolation. Two thirds have a past psychiatric history. Most are married, educated and employed.

Of substance abuse deaths, one third are suicide and the rest are due to misuse and when associated with other diagnoses such as anorexia being mistaken for TB or anxiety being mistaken for eclampsia.

Per-conception counselling and PROMPT referral to specialised care are strongly recommended.

### **GUEST LECTURES**

### GL 01: Pearls in gynaecological laparoscopy

## Dr P Wagarachchi

Consultant Obstetrician & Gynaecologist, Australia

## GL 02: Current practice in Hormone Replacement Therapy

#### Dr S Sathananthan

Consultant Obstetrician & Gynaecologist, United Kingdom

### **GL 03: Setting Standards**

#### **Professor Jim Dornan**

Consultant Obstetrician & Gynaecologist, Maypole Clinic, Holywood & Kings Bridge Hospital, Belfast

The RCOG now refer to Standards as "Clinical Quality", as in "Setting and maintaining Clinical Quality".

This department now deals with Revalidation, Clinical Guidelines, Patient information, Scientific Developments, Assessment of Doctors Performances, Audit & Research and influencing National Policies.

In this session I will describe how Clinical Guidelines are developed at the RCOG and how they may be adapted for local use. A Guideline must be evidence-based, evidence-linked and multi disciplinary. They must NOT be a textbook or cookbook.

Once a Guideline has been selected for adaptation, local stakeholders will complete consensus questionnaires, aggregate scores, address contentious issues, repeat the questionnaire and finalise the guideline.

## GL 04: Laparoscopic surgeries in gynae oncology

#### Dr S P Somashekhar

Professor, Head of Department, Surgical and Gynaeoncologist and Robotic Surgeon, Manipal Comprehensive Cancer Center, Manipal Hospital, Bangalore, India

**Introduction:** minimal invasive surgery in gynecologic oncology is increasing profoundly, especially in endometrial cancer. Minimal invasive surgical procedures are usually performed

in an effort to replicate procedures that have been successful at laparotomy with decreased morbidity. Minimally invasive approaches with smaller incisions, i.e., laparoscopy for the management of endometrial cancer was initially reported in The role of 1992; however, its adoption has been slow due to the prolonged learning curve needed to become proficient in such a technique. Robotic-assisted surgery, a further advancement of traditional laparoscopy, using computer-based controls has been developed enabling the performance of complex procedures that otherwise had been too difficult to accomplish in a minimally invasive fashion.

#### Main features:

#### **Endometrial cancer**

With clinical stage I to IIA uterine cancer Walker et al. in GOG LAP2 study has proved significant decrease in adverse events (14% vs 21%), and hospital stay (52% vs 94%) for laparoscopic surgery compared with laparotomy in endometrial cancer [1]. There have been several reports comparing laparoscopic management and laparotomy management of endometrial cancer; five of these reports, four retrospective and one prospective, on nonrandomized trial [2,3,4,5,6]. All suggest comparable recurrence rates, disease-free survival, and overall survival. The only efficacy data currently available for minimally invasive surgical management of endometrial cancer is in the traditional laparoscopy data. In a retrospective comparison of obese women and morbidly obese women undergoing traditional laparoscopic approach vs robotic-assisted approach, better surgical outcomes were observed in the group undergoing robotic-assisted laparoscopy [7]. Robotic procedure for treatment of endometrial cancer is associated with a shorter learning curve when compared to laparoscopic procedure. A minimum of 20 robotic-assisted hysterectomy with bilateral lymphadenectomy procedures is suggested for an experienced laparoscopic surgeon to become proficient. The number of lymph nodes retrieved via robotic-assisted hysterectomy with bilateral lymphadenectomy procedure was comparable to what has been reported by other robotic surgeons. There was a clear benefit for surgical outcome with decreased hospitalization, blood loss, and intraoperative complications favoring robotic procedures when compared to either laparoscopic or open procedures [8].

#### **Ovarian cancer**

It is not a standard of care in managing ovarian malignancy. However it is used for staging in already removed ovarian tumor, in carcinoma in situ and assessing feasibility of cytoreductive surgery. Retrospective case-control analysis of 25 patients with epithelial ovarian cancer undergoing robotic surgical treatment between March 2004 and December 2008, reported significant decrease in blood loss and hospital stay with no difference in efficacy [9].

#### **Cervical cancer**

Sert & Abeler described the first study comparing robotic assisted laparoscopic radical hysterectomy and pelvic lymphadenectomy to conventional laparoscopy in patients with early

stage cervical cancer[10]. The mean operating time was 241 minutes and 300 minutes in the robotic and laparoscopic group, respectively. The robotic-assisted group had less blood loss (71 mL vs. 160 mL, p=0.038). No difference in the number of lymph nodes, parametrial tissue and cuff size between the two groups. The robotic-assisted group had a shorter hospital stay (4 days vs. 8 days, p=0.004).

Conclusions: Objectives in improving cancer treatment can be categorized as those that improve efficacy, and those that lessen morbidity. Minimally invasive surgery seeks to decrease morbidity from surgery while maintaining at the very least equivalent efficacy. Management of gynecologic cancer in a minimally invasive manner with conventional laparoscopy has not been widely adopted secondary to the level of technical difficulty. Robotic-assisted laparoscopic surgery has been able to further advance laparoscopy by greatly facilitating the learning curve, enabling surgeons to gain sufficient proficiency in cases that otherwise have been prohibitive for mainstream surgeons.

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## GL 05: Management of recurrent miscarriage

#### Dr P K Shah

Consultant Obstetrician & Gynaecologist,

India

## GL 06: Clinical applications of misoprostol in gynaecology

#### Professor P C Ho

Professor,

Department of Obstetrics and Gynaecology, The University of Hong Kong, Hong Kong

Misoprostol is a prostaglandin E1 analogue. It is stable at room temperature and cheaper than many other prostaglandin analogues. In gynaecological practice, misoprostol has been shown to be effective in (a) medical abortion in both the first and the second trimester of pregnancies, when administered after mifepristone, (b) medical management of miscarriages, (c) dilatation of the uterine cervix before some intrauterine procedures such as vacuum aspiration for termination of pregnancy and hysteroscopic procedures.

We conducted a series of clinical and pharmacokinetic studies to explore ways to improve the efficacy of misoprostol. We showed that the bioavailability of misoprostol after sublingual administration was significantly higher than those after oral or vaginal administration. The absorption of misoprostol was also very fast after sublingual administration. This route of administration would be most useful where a rapid action is needed. However, the side effects may be more frequent because of the high serum levels. We also showed that the bioavailability of misoprostol tablets moistened with saline or acetic acid is significantly higher than that of dry misoprostol tablets. Further clinical studies are required to assess whether this can improve the efficacy of misoprostol. In a randomized placebo-controlled trial in women seeking medical abortion in pregnancies up to 9 weeks, we showed that a 3-

day course of letrozole before the administration of misoprostol increased the complete abortion rate of misoprostol. We are conducting further studies to improve its efficacy.

## **GL 07: Genetics in clinical practice**

#### Prof. Vajira H. W. Dissanayake

Professor,

Human Genetics Unit, Faculty of Medicine, University of Colombo

Our understanding of the aetiology of many rare as well as common disorders have been incomplete due to limitations in technologies that would have enabled us to understand the contributory pathophysiological mechanisms at molecular level. That scenario is fast changing with refinements in old technologies and the introduction of next generation technologies. Today we are able perform whole genome and exome analysis, as well as targeted sequencing of genes at a fraction of the cost and time 10 years ago thus making it possible for us to deliver personalized medical care to our patients. In this talk I would illustrate how refinements in old technologies and the introduction of new technologies is changing the practice of Obstetrics and Gynaecology as well as Reproductive Medicine with examples from our own experience as well as from the rapidly expanding body of scientific literature.

## **SYMPOSIA**

## S 01: Challenges in postgraduate training

## Performance based assessments in the new postgraduate curriculum

#### **Professor Malik Goonawardene**

Senior Professor and Head,

Department of Obstetrics and Gynaecology, University of Ruhuna, Galle

Performance based assessments have been introduced in to the new post graduate training program in Obstetrics and Gynaecology of the Postgraduate Institute of Medicine, University of Colombo Sri Lanka, with effect from May 2012. These assessments will be carried out periodically during the training period. This is in addition to the Training Portfolio which has to be maintained by all trainees during their pre MD training program (years 1 to 3) and the post MD training program (years 4 to 5).

The performance based assessments are as follows:

The trainee's professional development, with respect to his / her administrative skills, communication skills, documentation skills, attitudes, interpersonal relationships and overall professional competence will be assessed by the trainer as well as other members of the team and peers with whom the trainee interacts during his / her training.

The trainer will observe and assess the trainee directly, while the trainee is interviewing patients and obtaining data, carrying out clinical examinations, formulating management plans and communicating with patients. The results of these assessments will be fed back to the trainee and discussed immediately after the assessment.

The trainer will also observe and assess the trainee directly, when the trainee is carrying out a procedure. A pre determined format ( which will vary depending on the procedure ) will be used for the assessment.

Internal and external periodic In- Service Training Assessments (ISTA) will be carried out by the trainer and a pair of examiners appointed by the Board of Study in Obstetrics and Gynaecology respectively. During these assessments, a pre determined format and a marking scheme will be used to assess practical skills as well as academic skills. The marks of these internal and external ISTA will constitute 50% of the in-course assessment marks for the MD Examination.

## Challenges of postgraduate training in UK

## Professor Prashantha Wijesinghe

Professor in Obstetrics & Gynaecology & Head,

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

## Challenges in postgraduate training in Australia Dr Hasthika Ellepola

Consultant Obstetrician & Gynaecologist, Department of Obstetrics and Gynaecology Logan Hospital, Queensland, Australia

## S 02: Fetal Growth Restriction

## **Screening of Fetal Growth Restriction (FGR)**

#### **Dr Tiran Dias**

Consultant Obstetrician and Gynaecologist, General Hospital, Ampara, Sri Lanka

FGR has serious short and long term complications. Most of the available screening methods have been tailored to pick-up small for gestational age (SGA) fetuses rather than FGR. The diagnosis of FGR ideally requires a serial growth assessment and diagnosis can be confirmed when the fetal abdominal circumference (AC) is below the 10th centile with abnormal Doppler studies. In order to pick up FGR fetuses, different screening methods have been evolved.

Abdominal palpation and measurement of symphisio-Fundal Height (SFH) are the routine methods of screening of small for gestational age. Main limitation of these methods is that they are poor in differentiating SGA and FGR. Overall detection rates of SGA are 29%, 35% and 48% for abdominal palpation, SFH measurement and SFH on customized charts respectively.

Effective screening for FGR in the first trimester may be of value in targeting potential therapeutic agents. A novel method of screening for FGR has been recently described. Combination of maternal characteristics, serum biochemistry and uterine artery Doppler during first trimester has sensitivity of 73% in detecting early onset SGA before 37 weeks. Whereas detection rate of late onset SGA is 46% by this method. Later identification of SGA in the second trimester may be used to undertake intensive monitoring of the pregnancy. Second trimester uterine artery Doppler and maternal characteristics can detect 60% of early onset SGA.

Uterine artery Doppler studies can be used as an effective test in predicting pregnancies at high risk of developing complications related to uteroplacental insufficiency. It can be performed at the same time as a routine ultrasound pregnancy assessment. Uterine artery Doppler has a low false positive rate and identifies women who may benefit from increased antenatal surveillance or prophylactic therapy.

### Diagnosis and management of early fetal growth restriction

### **Dr Raffaele Napolitano**

Nuffield Department of Obstetrics and Gynaecology, University of Oxford

Early fetal growth restriction (FGR) is commonly defined as a condition where a fetus failed to fulfil its growth potential requiring delivery at a gestational age of less than 34 weeks. Early FGR is traditionally considered as a pregnancy complication "easy to diagnose but difficult to manage". The former is related to the relatively early occurrence, the association with other maternal risk factors and diseases, the higher detection rate sensitivity of the symphysial fundal height measurement and ultrasonography. The latter is related to the poor evidence from RCTs on how to manage this condition and on the fact that the risks of prematurity have to be balanced against the risks of prolonged fetal exposure to hypoxaemia and acidaemia, possibly resulting in fetal damage or death.

The best predictors of neonatal outcome are gestational age at delivery, birth weight, abnormal Doppler waveform patterns and/or abnormal fetal heart rate patterns. It is therefore crucial to establish a fetal surveillance program based on ultrasound fetal biometry, umbilical artery (UA) and venous Doppler assessment, short term variability (STV) at the computerised cardiotocography (cCTG), to diagnose and deliver early FGR fetuses. A practical guide for diagnostic/managing criteria can be summarised as follow.

Diagnosis of Early FGR: abdominal circumference less than the 10<sup>th</sup> centile associated with UA pulsatility index (PI) above the 95<sup>th</sup> centile before 34 weeks. Monitoring of Early FGR:

- in case of absent or reversed UA end-diastolic flow refer to a fetal medicine consultant and close monitoring of the ductus venosus DV PI and STV CTG,
- in case of deterioration of UA PI at two occasions 1 week apart refer to a fetal medicine consultant
- in case of consistency in fetal growth velocity and no further deterioration of UA PI, fortnightly monitoring of fetal biometry and UA PI as per small for gestational age fetuses.

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### Delivery criteria:

These depend on the availability of neonatal care. Early onset IUGR is centres with a high level of expertise. In general, delivery should be considered if there is

- Absent EDF > 34 weeks
- Reversed EDF > 32 weeks

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Prior to this gestational age outcomes are often poor and delivery should be based on abnormal venous Dopplers (DV) or CTG abnormalities such as low STV.

## **Management of late onset Fetal Growth Restriction (FGR)**

#### **Dr Tiran Dias**

Consultant Obstetrician and Gynaecologist, General Hospital, Ampara, Sri Lanka

Late-onset FGR is a significant clinical problem that contributes to over 50% of unanticipated stillbirths at term. Our understanding about many aspects of FGR is still evolving. Therefore, the management of pregnancies complicated by fetal growth restriction (FGR) continues to challenge obstetricians. Vascular resistance in the uteroplacental circulation is determined by the amount of functioning terminal villi in the villous structure in the placenta. As more terminal villi are present in term placenta typical disease worsening of Umbilical artery Doppler to venous Doppler abnormality is not present in term FGR.

The best antenatal test for fetal growth restriction is serial assessment of fetal abdominal circumference (AC) and diagnosis can be confirmed when the AC is crossing the centiles. Single AC measurement below the 5th centile with abnormal Doppler studies and reduced amniotic fluid index can also be used to diagnose FGR.

Intervention threshold is less challenging in late onset FGR because gestational age plays a minor role in determining outcome. However, the emphasis should be on detection and determination of surveillance intervals. As placental vascular dysfunction is less severe, a decreased cerebroplacental Doppler ratio, with either normal or only minimally elevated UA Doppler indices, may be observed. This is followed by preferential blood flow to the brain and a decreased MCA Doppler index that may occur as an isolated finding without a preceding increase in the UA Doppler index. MCA Doppler index and rate of progression on UA Doppler index can be used to guide the timing delivery in late onset FGR.

## S 03: Psychiatric disorders in pregnancy

## Psychiatric disorders in the postnatal period

#### Dr Harischandra Gambheera

Consultant Psychiatrist & Clinical Director, Mental Hospital (Teaching), Angoda, Sri Lanka

Psychiatric disorders are more common in the postnatal period than in the general population. They may be illnesses arising newly during this period or relapses of existing illness. Exact causation of this increase incidence and prevalence is not known but several potential causes have been recognized. A few of such causative factors are physical exhaustion, breast feeding, insomnia, loss of normal figure and attractiveness, loss of libido etc. Though there are many hormonal changes associated with pregnancy and puerperium, no direct link has been identified as a cause of any Psychiatric disorder.

Several psychiatric disorders have been recognized to occur during the postnatal period. The common disorders recognized are maternal "blues", post natal depression, postnatal mania and relapse of schizophrenic illnesses during puerperium and several other anxiety disorders. Maternal blues is the most commondisorder that occurs during this period and one third to two third of mothers are known to suffer from this. Puerperal melancholia was the first psychiatric condition to be identified and approximately 5 percent of mothers are known to suffer from this condition. Bipolar affective disorder, commonly mania is also known either to present for the first time during puerperium or relapse during this period. Postpartum psychiatric disorders have vast adverse consequences on the mother, baby and the family and early recognition and management is mandatory for the wellbeing of the entire family.

#### Maternal suicide

#### **Dr Jayan Mendis**

Director and Consultant Psychiatrist, National Institute of Mental Health, Sri Lanka

In Sri Lanka as well as in other South Asian and developed countriesit is found that psychiatric disorders and suicides in particular, are one of the leading causesof maternal deaths. In other countries suicides accounts for around 25% of maternal deaths. However, statistics regarding suicidal deaths among maternal deaths in Sri Lanka is not available.

Pregnant women also die from other complications of psychiatric disorders. Therefore, all pregnant womenshould be inquired about their previous history of mental illnesses, followed up by the psychiatric team and medication commenced at the appropriate time.

The natures of suicides show that most of these women were more violent than at other times. Rates of suicide is higher during 42 days after delivery, however it is not significantly different to the rate among non pregnant women in the same age group. This calls into question the so called "Protective effects of maternity"

Studies carried out in other countries have found that the risk profile of women who were at risk of suicide following delivery may be different to the riskin a womanat other times. None of the women who committed suicide had been admitted to a Mother Baby Unit or their psychiatric illness had been treated by the general adult psychiatric services. None of the women who committed suicide had a correctly diagnosed previous psychiatric episodeand none had been given adequate plans for their follow up care.

There is a need for both Psychiatrists and Obstetricians to acknowledge that there is a substantial risk for suicide for a woman with a previous history of severe mental illness after delivery.

## Perinatal mental illnesses – From theory to practice Dr Vajira Dharmawardene

Consultant Psychiatrist

## S 04: Current management of ovarian malignancies

## **Surgical management**

#### Dr S P Somashekhar

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Cytoreductive surgery is the initial treatment for stage I, II and III of ovarian cancer. Effort is to fully stage the disease and to achieve maximal cytoreduction to less than 1 cm residual disease or resection of all visible disease in appropriate circumstances [1,2,3]. Surgical cytoreduction is optimal if the residual tumor nodules are less than 1 cm in maximum diameter or thickness [4]. Extensive resection of upper abdominal ovarian metastasis is recommended for patients who can tolerate this surgery [5]. Hysterectomy and bilateral salpingo-oophorectomy should be performed. An encapsulated mass should be removed intact without rupture. All involved omentum should be removed. In patients with advanced ovarian cancer who have had complete debulking, overall survival is increased in those who receive systematic lymphadenectomy [6]. Aortic lymph node dissection should be performed preferably up to the level of renal vessels. Pelvic lymph node dissection should be done along external ileac, internal ileac and hypogastric vessels. Patients with stage III disease with complete optimal cytoreduction are candidates for intraperitoneal chemotherapy and IP catheter should be placed with initial surgery. In the absence of any suspicious peritoneal disease, random peritoneal biopsies should be taken from pelvis, paracolic gutters, and

undersurfaces of diaphragm. Appendectomy should be performed in all mucinous tumors and considered in all patients with epithelial malignancies suspicious for involvement of the appendix by metastases.

The therapeutic benefit of Neoadjuvant chemotherapy followed by interval cytoreduction remains controversial. It is considered for patients with bulky stage III and IV disease who are not surgical candidates. A recent randomized phase III trial assessed Neoadjuvant chemotherapy with interval debulking surgery versus upfront primary debulking surgery in patients with extensive stage IIIC/ IV disease [7]. Median overall survival was equivalent but patients receiving neoadjuvant chemotherapy had fewer complications. Upfront debulking surgery remains standard of care for stage IIIB or earlier stage patients.

For patients desirous of fertility preserving, unilateral salpingo-oophorectomy may be adequate for select stage I tumors (stage IA and IC but not stage IB) and low risk tumors (malignant germ cell tumors, malignant sex cord stromal tumors, low malignant potential lesions) [8].

The newer methods of importance are use of CUSA for clearing multiple peritoneal and bowel nodules, complete peritoneal stripping of Suger Baker technique, diaphragmatic stripping and Intraperitoneal chemotherapy. Minimally invasive surgery has limited role in carcinoma ovary and can be considered in assessing operability of stage III patients, incidental post-oophorectomy diagnosis of cancer for staging and suspected carcinoma in situ. This precaution is in view of poor prognosis associated with rupture of ovarian capsule during surgery and specimen retrieval.

#### **Conclusion**

Surgeon performing Ovarian cancer surgery is the most important prognostic factor. Optimal cytoreduction must be done and every efforts to remove all disease in pelvis and total omentectomy and Diaphragm stripping and resection to achieve optimal cytoreduction must be done and in Stage III cases after optimal cytoreduction, since Giffrith et al., study showed, just by optimal cytoreduction the overall survival jumped from 9 months to 36 months and IP-chemoport and IP chemotherapy improves survival over conventinal IV chemotherapy alone.

In Staging Ca Ovary, systematic staging surgery with proper multiple peritoanl biopsies and washings and systematic Paraaortic lymphadenectomy upto the levels of Renal veins are mandatory, since Young.et.al study showed, even in presumed Pelvis confined, stage I ca ovary, with systematic staging and Paraaortic lymphadenectomy, upto 31% of cases are upstaged to higher stage, requiring chemotherapy to cure those patients.

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## **Conventional chemotherapy**

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#### **Targeted Therapy**

#### Dr G Ramanan

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Ovarian cancer has historically been known as "silent killer". This is due to lack of screening, vague symptoms and thus delayed diagnosis at an advanced stage. Advanced Ovarian cancer is an area of unmet medical need in Oncology. In the past 15-20 years the only benefit shown is either by intraperitoneal or dose dense chemotherapies, and both have their limitations and can be offered only to a selected population. Recently one new anti-angiogeneic drug, bevacizumab, has shown benefit in advanced ovarian cancer in front line and recurrent settings (both platinum sensitive and recurrent). The drug acts by inhibiting vascular endothelial growth factor (VEGF), which is a pro-angiogenic factor. The trials in front line advanced ovarian cancer (GOG 0218 and ICON 7) have shown significant improvement in progression free survival when bevacizumab is added to standard first line chemotherapy of Carboplatin and Paclitaxel and then continued as a single agent till progression. Significant progression free survivals are also reported in recurrent settings when added to chemotherapy in OCEANS (platinum sensitive) and AURELIA (platinum resistant) trials. The drug has been approved by EMEA in the front line settings in advanced ovarian cancer (FIGO stage

IIIB, IIIC and IV) with carboplatin and paclitaxel followed by a single agent bevacizumab till Progressive disease or 15 months (whichever is earlier) at a dose of 15 mg/kg every 3 weeks. The safety profile of Bevacizumab in all Ovarian cancer trials has been consistent as reported earlier in trials of metastatic colorectal cancer, lung cancer, recurrent GBM, breast and kidney cancer with no new safety signals in ovarian cancer trials. Thus, with these significant findings across the various advanced ovarian cancer the drug could be considered to be incorporated in the clinical practice of advanced ovarian cancer management.

# S 05: Why are we still stagnant on deaths due to Post Partum Haemorrhage?

What can we do in PPH before hysterectomy?

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In the developed countries nearly 4 to 5 per thousand maternities are near misses due to PPH which may need hysterectomy, of which nearly >90% are due to uterine atony. The stepwise rapid succession of medical followed by surgical interventions can stop or minimize the bleeding and correct the blood loss and prevent the cascade of events that lead to massive blood loss, hysterectomy, admission to ICU and deaths. **'Too little, too late'** has been highlighted in successive confidential enquiries into maternal deaths in the UK. Too little in giving adequate fluids, blood and blood products and too late in rapidly progressing with more potential drugs and stepwise quick escalation of surgical procedures. The phenomenon of 'too little, too late' can be tackled by the use of the mnemonic 'HAEMOSTASIS'.

- **H** Ask for Help
- A -Assess (vital parameters, blood loss) and Resuscitate
- E -Establish etiology, Ensure availability of blood. Ecbolics (Oxytocics)
- **M** Massage Uterus bimanual compression
- O Oxytocin infusion / prostaglandins IV / IM/ per rectal / intra-myometrial
- **S** Shift to theatre to exclude retained products and trauma/ bimanual compression/ Antishock garment/ Aortic compression
- T Tamponade Balloon / uterine packing / tranexamic acid after excluding 'tissue and tears'
- **A** Apply compression sutures B- Lynch or modified vertical sutures
- S Systematic Pelvic devascularisation Uterine / Ovarian / Quadruple / internal iliac

#### **I** - Interventional Radiologist – If appropriate, Uterine artery embolisation

## S - Subtotal / Total abdominal hysterectomy

Whilst taking steps to arrest the haemorrhage the patient should be given oxygen, kept warm and adequate fluids, blood and blood products should be given. When the uterus is not responding to oxytocin, ergometrine and or continuous infusion of oxytocin should be commenced to keep the uterus contracted that allows the blood in the uterine vessels to clot. If this is not successful with bimanual uterine massage then prostaglandins (parenteral PGF compound parenterally or misoprosotol an E1 compound can be given orally or sublingually -600 micrograms or 1000 micrograms rectally). Combination of these drugs work synergistically and contracts the uterus for a longer time and with uterine massage more than 70% would respond. During PPH, the blood loss could be about 70 ml/min or 200 ml every three to four minutes when the uterus relaxes and hence a 14 Gauge needle which can give fluids rapidly should be used and two lines established. Once the woman has lost the clotting factors are depleted there will be weak clots. Tranexamic acid 1-2 gm intravenously, an antithrombolytic drug which prevents the clot from the uterine vessel can be given. If it does not bring about the resolution the woman need to be shifted to the theatre. An antishock garment which squeezes the blood into the circulation and also has a compressive effect on the uterus could be tried as in many cases that are all that is needed. Vast amount of clotting factors are utilized and lost with the bleeding 'consumptive coagulopathy' The lack of clotting factors, activation of fibrinolysis, large infusion of fluids, metabolic acidosis and hypothermia aggravates the situation and need to be controlled by giving fibrinogen and other clotting factors. Adequate blood and fluids need to be transfused to maintain the circulation and to prevent shock. Shock is proportionate to blood loss - mild 15%, moderate 30%, and severe 45% - but this need to be calculated based on the woman's blood volume which depends on her weight (approx Blood volume in Litres = 70 X wt in Kg).

Transfusion of one unit packed red blood cells to unit plasma as opposed to four packed cells to one unit plasma results in a 60 to 70% reduction in mortality in war injury victims. Obstetricians should adopt the same principle after blood loss of > 2L of blood loss. Where plasma is not available 'freeze dried fibrinogen concentrate that can be reconstituted may be appropriate. With severe blood loss platelet transfusion may be needed but this is rare.

Failure to arrest haemorrhage by medical therapy should be followed by a 'Tamponade Test' once trauma and retained tissue are excluded. The Tamponade test would only work when there is no coagulopathy and hence there should be rapid succession from medical to surgical therapy. Any form of balloon; Sengstaken, Rusche, Cooke's catheter or condom or rubber glove tied to a plastic catheter can be inserted into the uterus and filled with warm saline/water till the balloon is just visible at the cervical canal or the bleeding completely stops. If bleeding stops the balloon can be taken out in 4 to 6 hours or the next day. Patient should have broad spectrum antibiotics and an oxytocin infusion. Vital parameters, fundal height and bleeding per vagina should be monitored. If the test is going to be effective it will be known within 5 minutes. If the tamponade fails to stop the bleeding, a laparotomy should be performed and compression sutures (B- lynch or 2 to 5 vertical) should be employed. Failure

of compression sutures should lead to systematic devascularisation by tying the infundibulopelvic and uterine vessels and/or anterior branch of the internal iliacs. Arterial embolisation using radiological guidance can be tried where facilities exist. Failure to arrest haemorrhage or deterioration of general condition of the patient should prompt sub-total or total hysterectomy. Monitoring during haemorrhage and post immediate management is simplified using the Shock Index (pulse /systolic BP – normal is 0.5 to 0.7 – and > 0.9 indicates onset of shock and further increase indicates increasing shock) or Rule of 30 (rise in pulse >30/min, drop in systolic BP >30 mm Hg, reduced urinary output <30 ml/min, absolute respiratory rate .30/min, drop in haematocrit >30).

Placenta accrete/ percreta are cases with major risk of haemorrhage and are best delivered in specialized tertiary referral centers. Preplanned interventional radiology, cell saver technology, experienced obstetricians and anaesthetists should manage such cases. Conservative management of leaving the placenta after delivery of the baby can be carried out with nearly 80% success. Reconstructive uterine surgery after removal of the placenta with portion of myometrium where possible preserves the fertility. In vast majority of cases hysterectomy can be avoided by the above steps and women need not die of PPH.

## Review of surgical techniques in PPH

#### Professor Hemantha Senanayake

Professor in Obstetrics & Gynaecology & Head, Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Colombo

Surgery has a crucial role to play in preventing death and severe morbidity from postpartum hemorrhage (PPH). However, one of the most important aspects of effective surgical measures is the timely institution of them. Started too late, surgery will not have the same results. In uterine atony, the more common cause of PPH, the ideal point of initiation would be a negative 'tamponade test'. This means continued bleeding despite a balloon tamponade. Initiation of surgical measures without recourse to a balloon tamponade could be considered substandard care. These can only be avoided by adherence to a treatment cascade in the early phases of managing a PPH. Delay in moving the mother to

There are a variety of surgical measures available to tackle atonic PPH. These range from simple brace sutures to ligation of the uterine arteries and to the more challenging internal artery ligation and obstetric hysterectomy. The choice should be individualized depending on the general condition of the mother and rapidity of loss. A hysterectomy would be much better than conservative surgical measures in a mother reaching extremis.

In PPH due to trauma to the genital tract, the time-honored principles of 'good light, good assistance' will apply. Except in straightforward cases these conditions would only be available in the setting of an operating theatre.

Attention also needs to be paid to some aspects of PPH management that are often overlooked. Radiation of heat from the body due to coldness in the theatre, having the abdomen open for long periods with metal retractors in the wound could result in the patient becoming hypothermic. This can contribute to disordered clotting.

# Criteria based clinical audit to evaluate the occurrence, management and outcomes of post partum haemorrhage in a Teaching Hospital in Sri Lanka

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#### Introduction

In Sri Lank apost partum haemorrhage (PPH) accounted for 12.7% of maternal deaths in 2008. In 2009 The Sri Lanka College of Obstetricians and Gynaecologistscarried out an inservice training program to reduce maternal morbidity and mortality from PPH.

### **Objective**

To evaluate the occurrence, management and outcomes of PPH in a Teaching Hospital in Sri Lanka.

#### **Design, Setting and Methods**

A criteria based clinical audit was carried out at the Academic Unit of the Teaching Hospital Mahamodara Galle from 01 June 2010 to 31 December 2011. Specific, measureable, appropriate, realistic and time bound, criteria based input, process and outcome indicators were used.

#### **Results**

Of the 61 cases of PPH, 97% were identified by the need for blood or colloid transfusion. Deaths due to PPH reflected the tip of the iceberg. Morbidity and severe morbidity due to PPH and severe PPH were approx. 150 times and 55 times more respectively, compared to the deaths from PPH. PPH following Caesarean delivery and instrumental vaginal delivery were approx. 1.5 times and 3.5 times higher compared to PPH after normal vaginal delivery. Augmentation and induction of labour were the two leading risk factors identified. Genital tract trauma was an underlying cause in 59% of cases. Suboptimal management processes identified included: poor documentation, delayed shifting to the operating theatre and not checking haematological status of the patient prior to discharge from hospital.

#### **Conclusion**

Corrective measures have been adopted to improve the management of PPH in the unit.

## S 06: Medical disorders in pregnancy

# Maternal and fetal risks in Systemic Lupus Erythematosus (SLE) complicating Pregnancy

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Systemic lupus erythematosus (SLE) occurs frequently in women of childbearing age. Although patients with SLE are as fertile as women in the general population, their pregnancies may be associated with complications. The prognosis for both mother and child are best when SLE has been in remission for at least six months prior to the pregnancy .Maternal and fetal risks are higher when there is severe pulmonary hypertension, restrictive lung disease ,heart failure, chronic renal failure and if there was severe lupus flare within the previous six months.

There are major issues unique to pregnant patients with SLE and their children. These are exacerbation of the disease, development of maternal complications such as pregnancy induced hypertension, development of fetal complications such as intrauterine growth restriction, preterm delivery, fetal loss and development of neonatal lupus. The frequency of exacerbations varies with the state of disease activity at conception, ranging from 7 to 33 percent in women who have been in remission for at least six months, and from 61 to 67 percent in women who have active disease at the time of conception. Exercebations of disease could lead to increased risk of poor renal function, development of pregnancy hypertension etc resulting in poor maternal and fetal Preeclampsia complicates pregnancy in approximately 13 percent of patients with SLE. Among women with renal disease, the incidence is much higher. Furthermore, preeclampsia is more likely to occur in patients with antiphospholipid antibodies (aPL). Other maternal complications include preterm delivery, maternal venous thromboembolism and postpartum hemorrhage.

Early pregnancy loss, fetal growth restriction, fetal death and neonatal death are recognized fetal and neonatal complications in patients with SLE. The risk of fetal and neonatal complications are increased in women with hypertension, active lupus or lupus nephritis, low complement levels, elevated levels of anti-DNA antibodies, antiphospholipid antibodies, or thrombocytopenia.

Neonatal lupus is a passively transferred autoimmune disease that occurs in some babies born to mothers with anti-Ro/SSA and/or anti-La/SSB antibodies. The most serious complication

in the neonate is complete heart block, which occurs in approximately 2 percent of such pregnancies. Isolated skin rash occurs in a similar percentage of neonates. Women with anti-Ro/SSA and anti-La/SSB may have detectable amounts of these antibodies in breast milk, but there is no evidence that neonatal lupus results from breast feeding.

## Renal complications of Systemic Lupus Erythematosus & pregnancy outcome

#### Dr A L M Nazar

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SLE is one of the commonest glomerulonephritis which requires multidisciplinary approach. Careful planning of pregnancy, regular monitoring during pregnancy and post partum care for the newborn baby and mother are essential elements in preventing complications. It is difficult but of paramount importance to distinguish preeclampsia from SLE flare. Kidney transplantation, immunosuppressive medication for SLE patients during pregnancy and post transplantation requires fine balancing between disease suppression, organ preservation and maternal & child safety.

## **Management of systemic Lupus erythematosus in pregnancy**

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Pregnancy still poses a major challenge for women with systemic lupus erythematosus even though in the past 20 years the pregnancy outcomes in women with systemic lupus erythematosus (SLE) has improved considerably allowing young women with SLE to become mothers. Careful experienced multidisciplinary team management has shown to improve pregnancy outcome. Many women with SLE can become pregnant as fertility is not usually affected by the disease, but can be affected by the use of drugs used such as cyclophosphamide, where the risk correlates with total dose given and use in the older ages of reproductive life.

Pregnancy in SLE should be planned for improved outcomes and contraception plays an important role. A local study in the University Lupus Clinic showed that most pregnancies among SLE patients are unplanned and use of contraceptives is poor. Pregnancy and peurperium increases the risk of a lupus flare, and is more likely if disease has been active within 6 months of conception. Prior to a pregnancy, risk for complications should be

assessed. Previous complicated pregnancies, renal disease, presence of antiphospholipid antibodies (aPL) and treatment with high-dose steroids are predictors of complications. Pregnancy should be discouraged in women with pulmonary hypertension, heart failure, severe restrictive pulmonary disease, chronic renal failure and recent serious lupus activity. The level of lupus activity should be assessed clinically and serologically with DsDNA levels. Poor predictors need to be identified clinically and serologically by assay of SSA/Ro, SSB/La and aPL antibodies. Medications should be reviewed and adjusted appropriate for a pregnancy. Corticosteroids, hydroxychloroquine and azathioprine are safe to use in pregnancy, while cyclophosphamide, methotrexate and mycophenolate mofetil are contraindicated. Treatment of those with antiphospholipid antibody syndrome (APLS) during pregnancy with heparin +/- aspirin has significantly improved fetal and maternal outcome.

During pregnancy, monitoring of lupus activity, blood pressure, proteinuria and placental blood flow by doppler studies helps in early diagnosis and treatment of complications in lupus such as pregnancy loss, preterm birth, low birth weight, pre-eclampsia, and premature rupture of membranes.

Neonatal SLE, due to passive transfer of anti Ro and anti La antibodies carries a small risk of congenital heart block, requiring permanent pace maker implantation or death during infancy. If identified during pregnancy, fetal treatment can be done with dexamethasone which is not inactivated by the placenta unlike prednisolone. Post-partum monitoring to identify a lupus flare and recommencing anticoagulants for 4-6 weeks to prevent thrombotoic complications is also essential in those having APLS during the peurperium.

Breastfeeding is recommended for most women with systemic lupus erythematosus. There is no increased risk of neonatal lupus related to breastfeeding. Most medications are now recommended to be continued during breast feeding. Prednisone under 20 mg/day, warfarin, and heparin appear to be safe while breastfeeding. Although there were concerns about hydroxychloroquine, azathioprine and cyclosporine during breastfeeding, with recent data showing their safety, most now agree that they can be safely used during lactation. Avoiding breast feeding for about 4 hours after taking medicines can significantly reduce the exposure of the baby to the drug.

## S 07: Gender Based Violence

## What is GBV & its consequences?

#### Dr Sarda Hemapriya

Consultant Obstetrician & Gynaecologist

#### **GBV** - A concern for the Obstetrician

#### **Dr Sanath Lanerolle**

Consultant Obstetrician & Gynaecologist, Mawanella

The Declaration on the Elimination of Violence against Women (1993) defines violence against women as "any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life."

The consequences of gender-based violence on a woman's health are manifold. There for it is a obstetrician concern

Survivors often experience as a direct consequence of violence, life-long emotional distress, mental health problems and poor reproductive health. Abused women are also at higher risk of acquiring HIV and being infected by sexually transmitted infections (STIs). They are intensive long-term users of health services.

Forms of gender-based violence may be physical such as sexual, psychological/emotional violence within the family; child sexual abuse; dowry-related violence; rape and sexual abuse; marital rape; sexual harassment in the workplace and educational institutions; forced prostitution; trafficking of girls and women and female genital mutilation

Gender-based violence can result in many negative consequences for women's health and well-being. It may be fatal, such as homicide, suicide, AIDS-related deaths; chronic pain syndromes, traumatic gynecological fistulae.

Abuse during pregnancy poses direct risks to mother and child through physical trauma and increased chronic illnesses, occurs in approximately 4 percent to 15 percent of pregnancies. Indirect risks including depression, substance abuse, smoking, anemia, first and second trimester bleeding, delay in seeking antenatal care, and poor maternal weight gain .Abuse during pregnancy has been linked to a significant, reduction in birth weight

Non fatal outcomes may be injury from lacerations to fractures, internal organs injury, unwanted pregnancy, gynaecological problems, STDs including HIV, miscarriage, pelvic inflammatory disease, chronic pelvic pain, headaches, permanent disabilities, asthma, irritable bowel syndrome and self-injurious behaviour such as smoking, alcoholism and unprotected sex.

Mental health outcomes may be fear, anxiety, low self-esteem, eating problems, obsessive-compulsive disorder and post-traumatic stress disorder and fatal outcomes are suicide, homicide and HIV/AIDS.

## **Health sector response**

#### Dr Lakshman Senanayake

Consultant Obstetrician & Gynaecologist

Since the UN General Assembly passed the Declaration on the Elimination of Violence Against Women in 1993 much attention had been paid to gender –based violence which is considered a major and preventable public health problem which violates most, if not all human rights. What is of particular interest to the Obstetricians & Gynecologists is that GBV contributes negatively towards outcomes in all areas of reproductive health, including obstetrics and is a key factor that needs to be taken in to account when providing care.

At Global level most countries including Sri Lanka that has ratified most international treaties that ensure women's rights and health and have established policies ,strategies and are conducting many programmes to address GBV as a health sector response.

At national level the areas of response include ,legislative policies and frame works, capacity building of care providers ,establishing protocols and guidelines ,developing documentation and data management systems, programmes for screening for GBV and establishing service points for survivors within the existing health care system, particularly at the institutional level.

It is also important to recognize that GBV has a broad based causes structure set in a patriarchal socio cultural milieu , health sector response needs to be supported by a multi sectoral response by governmental and nongovernmental stake holders, possibly best collaborated by the health sector as the leading agency .

Nearly all countries in the Region have responded towards GBV in varying degrees and Sri Lanka stands out as a country that has launched programmes in a holistic and systematic manner. One of the strengths of the Sri Lankan heath system being the concurrent development of preventive and curative sectors ,has set in motion programmes directed towards prevention as well as towards providing effective and responsive services to those affected by GBV.

## S 08: Legislation of termination of pregnancy - Are we ready?

#### Health burden due to unsafe abortion

#### Dr Neil Thalagala

Consultant Obstetrician & Gynaecologist

Burden of abortion could be seen in different angels. These include; numbers of women who undergo abortions, mortality and morbidity the abortion is associated with, the risk of abortion, financial, psychosocial, and social burden of abortion.

Approximately 210 million of 1.5 billion women in reproductive ages are known to getting pregnant annually around the world. Seventy nine million of these pregnancies are unplanned and 46 million of them are terminated. Out of terminations 20 million are reported to be carried out in unsafe manner. Hence, around 1 in 10 pregnancies end up as an unsafe abortion.

Not much detail is available in Sri Lanka in terms of unsafe abortion. A national; survey conducted in 1996 estimated that around 250,000 abortions are conducted annually around the country. This number which amounts to 73% of total births of the same year could be considered formidable; especially considering abortion is legally prohibited in the country.

Abortion burden is mostly seen in developing countries which report around 78% of total abortions of the world. In 2008, around 47000 mothers around the world are reported to have died due to unsafe abortion. World over about 13% of maternal deaths are due to unsafe abortions. In Sri Lanka also 17 out of 135 maternal deaths in the same year was due to unsafe abortions. Cause specific maternal death ratio pertaining to unsafe abortion in developing region amounts to 40 /100000 live births where as that of Sri Lanka is around 4.2/100000 live births.

Globally around 29 of every 1000 women in reproductive ages are known to undergo an unsafe abortion within a year. The corresponding figure for Sri Lanka is 45.

In conclusion unsafe abortion is a considerable public health burden that affects the survival and wellbeing of many women and families around the world. Sri Lanka though the mortality associated with unsafe abortions are relatively low, a formidable number of women under go abortion.

## Sequel of unsafe abortion

#### Dr Harsha Atapattu

Resident Obstetrician & Gynaecologist, General Hospital, Kalutara

The increasing number of unsafe abortion has become a significant health & social concern in Sri Lanka.

It is estimated that nearly 290,000 illegal abortions are being performed island wide & it is a shocking 2 fetuses being aborted for each 3 children born. Many of these women are married & the commonest reason is that the index pregnancy being too soon after the previous childbirth.

Sri Lankan law allows abortion only when the pregnancy/childbirth threatens the life of the woman. Any abortion performed outside this context has to be considered unsafe as there is no mechanism to monitor the safety of the procedure. However, only a very small proportion of the large number of abortions performed in Sri Lanka appears to have complications.

Compared to the countries of the region, Sri Lanka has a maternal mortality rate of which we can be proud of. Unsafe abortion has become the 2<sup>nd</sup> commonest cause of maternal mortality in 2010.

The women who undergo termination not only develop physical complications but psychological consequences as well.

Post-abortion care is a five-pronged multidisciplinary care pathway providing a holistic approach to the problem, though in the Sri Lankan context this is not fully developed. The main aim in our management strategy should be avoiding a termination second time in the same woman.

## **Emotional impact on the women undergoing unsafe abortion**

#### Dr Susil Kulathilaka

Consultant Psychiatrist, District General Hospital, Chilaw

A woman who is considering or undergoing unsafe abortion is usually facing complex emotions including fear, shame, anxiety and depression. Abortion decision itself is not straightforward. Most women are ambivalent about the decision. Many find the time constraints and social stigma surrounding the abortion are stressful. They may feel isolated and not able to share their concerns genuinely with significant others.

Research regarding psychological effects of unsafe abortion give conflicting results. One reason for this may be the bias due to intense legal, moral, ethical and socio-cultural issues. It is important to maintain scientific objectivity when conducting research in this area.

It is reported that women undergoing abortion as teens report more emotional problems compared to older women.

More research evidence is necessary to examine the general consensus of low psychological impact after abortion when compared to unwanted perinatal loss (miscarriage, stillbirth).

There are multiple risk factors for adverse psychological effects of unsafe abortion. These include past psychiatric illness, young age, being single, and having relationship issues. These factors and any emotional or behavioral change observed in patients should lead to appropriate provision of psychiatric assessment and treatment.

## Proposed changes to the law of abortion

#### Dr Hemantha Perera

Consultant Obstetrician & Gynaecologist, Sri Jayewardenepura General Hospital

Sri Lanka provided no relief of legal right of termination to the victims of rape and incest and for lethal congenital abnormalities. It is futile to wait for the utopic day when no one in a society is sexually harassed. The government is responding to the strong request of the society to allow a woman to decide which pregnancy she wants to continue, at least in the events she was forced to get pregnant.

The Government has recognized the SLCOG as the only technical group capable of drafting the guidelines of this procedure. There are many areas both medical and legal, which the SLCOG had to consider and the final draft is now being reviewed by the other stakeholders.

For example, inability to legally prove sexual assault within the practically limited period available for a termination to be carried out places the whole responsibility of decision to go ahead, in the hands of the medical profession. It is pertinent that we, as the professionals responsible for the survival of life from the inception of it are equally responsible when it comes to the ultimate pronouncement of a prima facie case which warrants termination of life.

It is unwise to mix sentiments and responsibility in this most sacred professional duty and our suggestions in the draft have strived to meet this standard.

## S 09: Management of labour

## How to improve the outcome of induction of labour

#### Dr D Y K De Silva

Consultant Obstetrician & Gynaecologist

Approximately 22% of women undergo induction of labour.

The goal of labour induction is to stimulate uterine contractions before the spontaneous onset of labour, resulting in vaginal delivery. The benefits of labour induction must be weighed against the potential maternal and fetal risks associated with this procedure. When the benefits of expeditious delivery are greater than the risks of continuing the pregnancy, inducing labour can be justified as a therapeutic intervention.

Possible indications for labour induction may include hypertension, diabetes, premature rupture of membranes, fetal growth restriction, and post term pregnancy. However, physicians should consider the maternal and infant conditions, cervical status, gestational age, and other factors. Previous caesarean section and breech presentation should be induced with caution. Induction for maternal request and suspected macrosomia needs serious limitation.

Membrane sweeping reduces formal induction for post-term gestations. Prostaglandin E2 (PGE2) and vaginal misoprostol were more effective than oxytocin in bringing about vaginal delivery within 24 hours but were associated with more uterine hyperstimulation. Mechanical methods reduced uterine hyperstimulation but only good for cervical ripening.

Oxytocin is more effective than expectant management or placebo but less effective than vaginal and cervical PGE2 in bringing about vaginal delivery within 24 hours. Oxytocin resulted in more caesarean deliveries than PGE2. Various other pharmacological and non-pharmacological methods are not recommended for induction of labour in the NICE guidelines.

Unsuccessful labour induction is most likely when the cervix is unfavorable(Bishop score < 6). The following factors were independently associated with induction failure: nulliparity pre-pregnancy body mass index >25 kg/m2, cervical length <25 mm and the development of uterine contractions in response to the first application of PGE2.

# The National Partogram - What changes are required to improve its utilization?

## Malik Goonewardene<sup>1</sup>, Chamari de Silva<sup>2</sup>, Madusha Medawala<sup>2</sup> Sumali Karunarathna<sup>2</sup>

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#### Introduction

Although a National Partogram for Sri Lanka was designed in 1992, it continues to be poorly utilized and there is a need to make appropriate changes and improve its utilization.

#### **Objective**

To evaluate the knowledge on and the use of the National Partogram in Sri Lanka and identify any changes required to enable its increased utilization.

#### **Design and Method**

An interviewer administered questionnaire was used to obtain data regarding knowledge on and the use of the National Partogram, from medical officers involved in providing intrapartum care in the Southern, Northern, Western and Central Provinces, and undergraduates of the Faculty of Medicine Galle. A workshop was conducted to discuss the results of this study and suggest appropriate changes to the National Partogram.

#### **Results**

Among the 392 participants in the study were Senior House Officers or Grade Medical Officers (39%), Resident or Intern House Officers (36%), undergraduates (17%), SRs or Registrars (5%) and Specialists (4%). The medical officers (n=326) were from Teaching Hospitals (46%), District General Hospitals (22%) and Base Hospitals (26%). The number of deliveries per month in the hospital / unit of the relevant medical officers varied from > 500 in 4.6% to < 100 in 5.2%, with 40% having 200 – 300 deliveries per month. The National Partogram was available in 96% of these hospitals but 60% of medical officers felt they needed further in-service training in its use. Of the 16 Specialists, three considered a partogram was required only in high risk cases and one considered it unnecessary. While 12 specialists did not use the National Partogram due to lack of time and inadequate staff, nine specialists and 90% of SRs thought it should be changed. Knowledge regarding documentation of data in the National Partogram was found to be suboptimal.

Six specialists and 17 SRs and registrars participated in the workshop and among the recommended changes were: to include instruction on the use of the National Partogram, to commence it during the latent phase of labour and document in detail the data regarding the fetus detected on vaginal examination.

#### **Conclusion**

A new format has been proposed for the National Partogram.

## Vaginal breech delivery - Safety concerns

#### **Dr Ananda Ranatunga**

Consultant Obstetrician & Gynaecologist, Castle Street Hospital for Women

Vaginal breech delivery is a rare event in most of our obstetric units. 90 -100 percent babies in breech presentation are delivered by cesarean section. In Dublin the rate is 90 % and in USA 93 %. Definitely the trend is towards cesarean section (CS) delivery. The cesarean delivery rate for breech was increasing gradually even before the landmark study called Term Breech trial in 2000 which found that breech babies born vaginally were three times more likely to suffer from serious harm or death compared to babies born via cesarean. However the dramatic increase in c-section delivery rates for breech was due to this study. In Dublin vaginal delivery rate for breech presentation in a primigravid mother dropped from 15 % to 7 % while in multiparous mothers from 33 % to 15 %.

Studies show that there was no significant decline in perinatal mortality rates despite a significant decrease in vaginal breech delivery rates. Furthermore some studies have shown that for certain women vaginal breech delivery can be just as safe option as cesarean. With careful case selection and labour management, perinatal mortality occurs in approximately 2 per 1000 births and serious short-term neonatal morbidity in approximately 2% of breech infants. Many recent retrospective and prospective reports of vaginal breech delivery that follow specific protocols have noted excellent neonatal outcomes.

Feto-pelvic disproportion should not be present. Clinical pelvic examination to exclude pathological pelvic contraction by an experienced clinician, and ultrasound fetal weight assessment by a trained zonographer at 38 – 39 weeks to see the fetal weight is within 2500 G -3500G range is necessary. Fetal growth restriction and Macrosomia are contraindications. Any presentation other than a frank or complete breech with a flexed or neutral head attitude should be delivered by Cesarean Section.

Induction of labour is not recommended for breech presentation. Proper management of labour with close monitoring of fetal heart (continuous monitoring) is mandatory. Lack of

progress in labour is an indication to abandon the trial of vaginal breech delivery. Even in the second stage if the presenting part doesn't descent from ischial spine level to introitus in 30 minutes or if delivery is not imminent after 60 minutes of pushing CS delivery is indicated. Experienced obstetrician comfortable with vaginal breech delivery with skilled and experienced middle grade medical officers, nursing and midwifery staff should attend the vaginal breech delivery. Person competent in neonatal resuscitation and the availability of facilities to perform CS delivery in 30 minutes if the necessity arises are prerequisites for a safe vaginal breech delivery.

## **CONTROVERSIES**

# C 01: Confidential enquiries into maternal deaths in Sri Lanka

# The way forward to confidential enquiries into maternal deaths in Sri Lanka

#### Professor Sir S Arulkumaran

Professor and Head of Obstetrics & Gynaecology, St George's Hospital Medical School, Cranmer Terrace, London SW 17 0 RE

# The way forward to confidential enquiries into maternal deaths in Sri Lanka

#### Dr Hemantha Perera

Consultant Obstetrician & Gynaecologist, Sri Jayewardenepura Hospital

Sri Lanka has one of the lowest maternal mortality rates in the world. The current rate may be as low as 33 per 1000,000 live births. As this is very low compared to our neighbours, a very unhealthy complacence has crept in, leading to stagnation of MMR for the last 02 decades.

It is important to note that 70-80% of these maternal deaths are due to preventable causes. PPH, PIH, criminal abortion and cardiac disease have been the leading causes over the years.

If we know these are the causes, how come that we are unable to reduce the nest death due to the same reasons. SLCOG knows why. It is because the truth does not surface at the current system of maternal death reviews.

An open forum discussion, blaming culture and poor handling of review meetings are a sure recipe for the continuation of preventable deaths.

Confidentiality in an environment of legal indemnity is the only way the truth will surface. We are already behind schedule and SLCOG has been successful in opening the eyes of the Health administrators to this reality. We fervently hope that confidential Enquires into Maternal Deaths (CEMD) in Sri Lanka will start in January 2014, as clearly documented in the Goal 18 of SLCOG strategic Plan for 2012-17.

# C 02: Management of myoma

# Fibroid and infertility

Dr C Hunukumbure

## Which fibroid, which way

#### **Dr Sunil Fernando**

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Fibro leiomyomata are the most common tumors in women affecting more than 30%. The vast majority of fibroids grow as a woman gets older, and tend to shrink to 50% its size after menopause. Only 10% show growth after menopause. With HRT they tend to grow, yet do not cause symptoms.

Fibroids require treatment only when symptomatic such as growing large enough to cause pressure on other organs, such as the bladder bowel and vagina, showing rapid growth, causing abnormal bleeding, or deemed to cause problems with fertility and recurrent miscarriage. Open laparotomy had been the method of choice for myomectomy until laparoscopic techniques such as multiple port, single port or robotic surgery overtook as the method of choice in most of the situations specially when fertility is desired. The size, number and position of the fibroids are the main considerations in minimal access surgery(MAS). Myomas as big as 3.4 Kg has been removed laparoscopically and presence of more than 4 fibroids is considered a relative contraindication for MAS. Improved energy sources and skills in laparoscopic suturing has rendered minimally invasive techniques as the method of choice for most of the gynaecological surgeries particularly in the sub-fertile population. Vaginal route is feasible for cervical and lower posterior wall fibroids. The method of choice for selected cases of submucous myomas is the hysteroscopic resection with a dissecting loop. Alternatively hysteroscopic enucleation is possible using myoma graspers. Myoma coagulation laparoscopically with laser, electrical or freezing could reduce the volume by 50% due to a reduction in blood supply.

Non invasive methods such as uterine artery embolisation could alleviate menorrhagia and pressure symptoms in 80-90% of patients by 1 year. The mean fibroid volume reduction at 1 year ranges from 50 to 60%. This method may compromise the blood supply to the ovaries and endometrium and is not desired if fertility is to be preserved. Magnetic resonance guided focused ultrasound surgery (MRgFUS or FUS) is a more recent fibroid treatment option. Multiple waves of ultrasound energy converge on a small volume of tissue, which leads to thermal destruction of the fibroid.

## Management of asymptomatic myoma

#### **Dr Samanthi Premaratne**

Consultant Gynaeoncologist, National Cancer Institute, Maharagama

# C 03: Management of Diabetes in pregnancy - An Obstetric dilemma

## **Diagnosing GDM - WHO or HAPO**

#### Dr Arjuna Medagama

Senior Lecturer and Consultant Physician in General Medicine Department of Medicine, Faculty of Medicine, University of Peradeniya

The diagnosis of Gestational Diabetes Mellitus (GDM) is a subject that has undergone complete metamorphosis during the last 3 decades. At present, any degree of glucose intolerance first detected or onset during pregnancy is largely recognized as GDM. It is also a contentious subject due to the many schools of thought that exist and the paucity of hard evidence.

In the early 1980s both the WHO and the National Diabetes Data Group (NDDG) advocated the 2h 75g Glucose tolerance test as the main diagnostic tool for diagnosing Diabetes in non-pregnant adults.

With regard to GDM, the NDDG promoted the use of the 3 h 100g Glucose Tolerance Test as the diagnostic tool. This was largely accepted in the USA as well as within many other medical associations worldwide albeit with different cut off values for the diagnosis of GDM. However the WHO continued to recommend the use of the 2 h OGTT together with the same cut offs used for diagnosing diabetes outside of pregnancy.

More recently in the light of the Hyperglycaemia and Adverse Pregnancy Outcomes (HAPO) study, the International Association of Diabetes in Pregnancy Study Group (IADPSG) recommended the use of 2h OGTT with adjusted cut off values for the diagnosis of GDM. A Fasting Blood Sugar > 92mg%, 1 h Blood sugar >180 or a 2h Blood sugar >153 according the current criteria is diagnostic of GDM.

A recent meta-analysis has shown a small increased risk for adverse pregnancy outcomes when IADPSG criteria are applied.

However the adaptation of these cut off values are not uniform and many clinical and professional bodies continue to use the previous values for the diagnosis of GDM.

## **Managing GDM - Insulin to Orals**

#### Dr Charles Antonypillai

Consultant Endocrinologist Teaching Hospital, Kandy

Gestational Diabetes mellitus (GDM) complicates a significant number of pregnancies. There is evidence to show that good blood glucose control, results in improved pregnancy outcomes. Medical nutrition therapy is the cornerstone of therapy for women with GDM. Traditionally insulin has been the drug of choice for controlling hyperglycaemia in pregnant women. However, many pregnant women are reluctant to take insulin because of multiple daily injections, potential for hypoglycaemia, weight gain and cost. As a result focus was turned on oral hypoglycaemics as an alternative to insulin in pregnancy. Metformin and Glibenclamide have been found to be safe, effective and economical for the treatment of GDM. At present, there is increased acceptance of Metformin and Glibenclamide use as the primary therapy for GDM in many parts of the developing as well as the developed world. However these drugs have not replaced insulin as one of the main treatment options for hyperglycaemia in pregnant women.

## What is not so nice about NICE guidelines

#### Dr Anura Samarakoon

Consultant Obstetrician & Gynaecologist

# C 04: Brain and Pregnancy

# Management of cerebral haemorrhage in pregnancy

#### Dr Maheshi Wijeratne

Consultant Neurosurgeon, Sri Jayewardenepura General Hospital

## **Cognitive functions and pregnancy**

#### Professor Vajira Weerasinghe

Professor of Physiology, Faculty of Medicine, University of Peradeniya & Consultant Neurophysiologist, Teaching Hospital, Peradeniya

Cognition refers to a group of mental processes that includes attention, memory, producing

and understanding language, solving problems, and making decisions. It is the higher order information processing of the human brain. Gender differences in different cognitive abilities are reported and are known at least due to the influence of sex hormones. It is therefore worth asking the question whether cognitive functions in women change during pregnancy and after childbirth.

Since 1940s, it is suspected that the hormonal bath of pregnancy helps prepare women for the demands of motherhood. In 1997, an article reported in New Scientist showed that women's brains shrink during late pregnancy and take up to six months to regain their full size. Widely misreported and misunderstood, this study did not report any psychometric findings or employ any subjective measures of memory function to arrive at these conclusions. Pregnesia is known to be amnesia during pregnancy and 'Porridge Brain syndrome' has long been recognised in midwifery folklore and there have been callsfor the formal preparation of prospective mothers for their impending 'brain drain'. While there is plenty known about how hormones affect the teenage and the menopausal brains, apart from these reports and anecdotal evidence, cognitive functions of the pregnant brain is poorly understood and little studied in humans.

Cognitive difficulties have been reported in a number of studies that have examined the subjective experience of cognitive change during and after pregnancy. These studies suggest that a substantial proportion of women experience some degree of disturbance in cognitive ability with estimates ranging from 50% to 80%. Only a few studies have examined the objective measures of cognitive functions. comprehensive In review on the subject written by Matthew and Baxendale in 2001, it is suggested that there is a possibility of two syndromes of memory loss associated with pregnancy. The first is known as gestational memory impairment (GMI) seems to occur in up to 80% of pregnancies, often in beginning in the second trimester, and continuing through thethird. This appears to be characterised by a high level of subjective memory complaints and an objective impairment on explicit memory tasks. In most women, this appears to resolve soon after childbirth. The second syndrome is that of prolonged post-partum memory impairment (PPMI) which seems fromchildbirth. to date rather than pregnancy, and be longlasting. However a study reported from Australia in 2008 contradicts these results. In this study,the research team lead by Professor Helen Christensen, Director of the Centre for Mental Health Research at ANU, analyzed information recorded from 1,241 women between 20 and 24 years. The participants were surveyed in the year they were recruited and again in 2003 and 2007. The information recorded showed that 223 of the women had become mothers and 76 had been pregnant at the time of the research interviews. The study tested cognitive speed, working memory, and immediate and delayed recall. The results showed no significant ability. It is concluded cognitive that changes could be related to the cognitive changes that are known to occur during pregnancy and childbirth, the research findings are controversial.

## Management of epilepsy in pregnancy

#### Dr Harsha Gunasekara

Consultant Neurologist,

Sri Jayewardenepura General Hospital, Nugegoda

Epilepsy is one of the most common medical conditions encountered by obstetricians, affecting around 1 in 200 women attending antenatal clinics. Epilepsy itself is associated with a risk of giving birth to a malformed child around 25% higher than for pregnant women generally (in whom the risk is 2-3%) and, for women with epilepsy who are taking anti-epileptic drugs, the increased risk is around three-fold. (Nevertheless, over 90% of babies born to epileptic mothers are normal). The babies of women with epilepsy are also at increased risk of neonatal problems.

In addition to these effects of epilepsy and anti-epileptic medication on the progress of pregnancy, the pregnancy may also influence the progress of epilepsy, with an increase in seizure frequency in around a third of women and altered metabolism of anti-epileptic drugs. Pregnancy probably causes an increase in the clearance and a decrease in the concentration of several anti-epileptic drugs (AEDs). Monitoring of drug levels of these AEDs during pregnancy should be considered.

Women with epilepsy should be counselled that seizure freedom for at least 9 months prior to pregnancy is probably associated with a high rate (84%–92%) of remaining seizure-free during pregnancy. Pre-conception folic acid supplementation is possibly effective in preventing major congenital malformations in the newborns of women with epilepsy taking AEDs.

#### C 05: Preterm Labour

# Screening for preterm labour

#### **Dr Tiran Dias**

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An estimated 15 million babies are born preterm in every year worldwide and nearly 1.1 million babies die annually from preterm birth complications. Preterm birth rates have not decreased in the last 50 years. Majority of mortality and morbidity relates to early delivery before 34 weeks. Prediction and prevention of this complication is a challenge in antenatal care as an effective screening test and an effective intervention have not yet determined. In one-third of preterm births are indicated deliveries for various medical indications and remaining two-thirds are spontaneous due to premature onset of labour or preterm pre-labour rupture of membranes.

Most of spontaneous preterm births (85%) before 34 weeks do not have past history of preterm delivery. Only 15% of spontaneous preterm births come from the group of women who had a previous late miscarriage or spontaneous preterm delivery. Therefore, any screening or intervention should be mainly focused on low risk pregnant mothers who do not have previous history of preterm birth.

The risk of spontaneous preterm birth is inversely related to the cervical length measured by transvaginal sonography at 20–24 weeks' gestation. This risk substantially increases when the cervical length is less than 15 mm. The length is 15 mm or less in about 1% of women including about 30% of those delivering spontaneously before 34 weeks. Measurement of cervical length should be undertaken by trans-vaginal method. Vaginal transducer should be introduced in the anterior fornix of the vagina and adjusted to obtain a sagittal view of the entire length of the cervical canal. Callipers should be used to measure in sequence the linear distance between the two ends of the glandular area around the endo-cervical canal.

Fetal fibronectin is an extracellular matrix glycoprotein produced by amniocytes and by cytotrophoblast and it can be detected in cervico-vaginal secretions. Fetal fibronectin can be found in high levels before 22 weeks but low levels at 22-34 weeks. Measurement of fetal fibronectin at 22-24 weeks is useful in predicting pregnancies at increased risk of spontaneous preterm birth. At 22-24 weeks the test is positive in about 4% of women including about 25% of those delivering spontaneously before 34 weeks.

Combination of cervical length and obstetric history provides a better prediction of spontaneous preterm birth than either factor alone. For a 5% screen positive rate, the detection rate is about 70% for extreme, 45% for early, 40% for moderate and 15% for mild spontaneous preterm birth.

# Prevention of preterm labour

#### Dr Dhinuka Lankeshwara

Consultant Obstetrician & Gynaecologist

An estimated 15 million babies are born preterm every year and the rates of preterm births are increasing in almost all countries. The global action report on preterm birth, *Born too soon*, clearly outlines that the prevention of preterm births must be accelerated.

While there is a global attempt to restrict the "provider initiated" preterm births, strategies to reduce rates of spontaneous preterm labour too are coming to forefront. Addressing the modifiable risk factors for preterm labour during reproductive health care is a well established preventive strategy. More specific interventions to at risk mothers, namely progesterone administration, cervical cerclage and pessary insertion has been debated in the obstetric community, with increased interest in recent years. These interventions behave differently in singleton and multiple pregnancies.

It is well established that progesterone prophylaxis clearly reduces the risk of preterm birth in women at risk. Whether this reduction in preterm births is converted in to an actual improvement in perinatal outcome was questionable. In a recent meta-analysis *Sotiriadis et al.* found that **local progesterone** in asymptomatic women with a short cervix appeared to significantly decrease the rate of composite adverse outcome and respiratory distress syndrome (RDS), but failed to reach statistical significance regarding the rates of neonatal death and perinatal death. However, the same meta-analysis concluded **systemic preogesterone** in women with a history of preterm birth would significantly decrease the rates of neonatal death and NICU admission. However, in twin pregnancies progesterone was associated with increased rates of perinatal death, RDS and composite adverse outcome

Cervical cerclage is a well known surgical procedure with controversial effectiveness and safety profile. Royal College of Obstetrician And Gynaecologists recommended that women with a history of spontaneous second-trimester loss or preterm delivery who have not undergone a history-indicated cerclage may be offered serial sonographic surveillance and may benefit from ultrasound-indicated cerclage if cervical length is less than 25 mm before 24 weeks. Women should be informed that expectant management is a reasonable alternative since there is a lack of direct evidence to support serial sonographic surveillance over expectant management. A Cochrane review published following issue of this guidance further consolidated these recommendations as it concluded that compared with no treatment, cervical cerclage reduces the incidence of preterm birth in women at risk of recurrent preterm birth without statistically significant reduction in perinatal mortality or neonatal morbidity and uncertain long-term impact on the baby. The insertion of an ultrasound-indicated cerclage is not recommended in women without a history of spontaneous preterm delivery or second-trimester loss who have an incidentally identified short cervix of 25 mm or less. In contrast the insertion of a history- or ultrasound-indicated cerclage in women with multiple pregnancies is not recommended, as there is some evidence to suggest it may be detrimental and associated with an increase in preterm delivery and pregnancy loss.

Cervical pessary has been tried as a simple, non-invasive alternative that might replace the invasive cervical stitch operation. The only well designed randomized controlled trial with this regard, published this year concluded that cervical pessary significantly reduced the risk of preterm birth before 34 weeks in mothers with a short cervix identified ultrasonically and a singleton pregnancy.

## Diagnosis and management of preterm labour

#### Professor Sir S Arulkumaran

Professor and Head of Obstetrics & Gynaecology, St George's Hospital Medical School, Cranmer Terrace, London SW 17 0 RE

The outcome for babies delivered between 34-37 weeks gestation is extremely good and for this reason labour is normally allowed to proceed at this gestation. The diagnosis of preterm labour remains clinical with a careful history and speculum examination being important components. Digital examination should be avoided if there is any suggestion of ruptured membranes as this increases the risk of ascending infection. The women who are judged at risk of preterm delivery within 7 days are those with PPROM, Clinical suspicion of idiopathic preterm labour, those with obstetric complications (eg. Pre-eclampsia, IUGR, placenta praevia) for which early delivery is planned or which may necessitate early delivery. The diagnostic Criteria is based on regular uterine activity, with a contraction frequency of at least 1 every 10 minutes and at least one of the following: ruptured membranes or evidence of progressive cervical change on repeat vaginal examinations - any change if by the same examiner. It should be a change in cervical length or dilatation of >1 cm if by different examiners, level of presenting part. In a nulliparous woman the findings acceptable for a diagnosis of preterm labour are: cervical dilatation of 2 cm or more or partial cervical effacement (to a length of 1 cm or less). In terms of Investigations; Check gestation andperform the following investigations: Urinalysis for proteinuria and Nephur test, MSU for culture (treat as presumed infection if proteinuria / Nephur +ve and symptoms), HVS (for M, C&S), Endocervical swab (for chlamydia). Insert IV and take the following bloods: FBC, U&E glucose. Ultrasound assessment where practicable for: presentation, weight estimate (especially if <32 weeks), liquor volume (by amniotic fluid index), umbilical artery Doppler. Discuss the management plan with the patient and document it in the notes. The use of betamimetics must be discussed with the Senior Registrar. Care must be taken in multiple pregnancies. If less than 34 weeks gestation the use of betamimetics should be considered short-term to allow dexamethasone to be given and to take effect. If more than 34 weeks gestation and a neonatal intensive care cot is available in the unit, monitor the fetal heart rate continuously and allow labour to proceed. In-utero transfer after 32 weeks should only be considered after discussion with the Consultant Neonatologist. Early communication with the Neonatologists is essential. Those who need antenatal steroid therapy are; all women at 24 – 34 weeks gestation judged to be at high risk of delivery within 7 days. Babies of women delivering at 34 – 36 weeks gestation may also benefit. Two doses of Betamethasone 12mg intramuscularly are given 24 hours apart. Optimal clinical effect is observed from 24 hours to 7 days. Betamethasone may be repeated after 28 days if gestational age is <32 weeks, although this is of uncertain benefit. The women who should receive antibiotics are recommend intravenous benzylpenicillin (or clindamycin) to reduce risk of early onset Group B Streptococcus infection in the neonate. The use of other antibiotics to prolong pregnancy, particularly after PPROM, has not been shown to be of benefit, indeed it may be harmful. Use tocolysis only for periods not exceeding 48 hours. May be used to admit in-utero transfers or delay delivery for 24 hours after initiating steroids. Nifedipine and atosiban are recommended by the RCOG. The regimen is GTN 10mg patch applied to the skin daily. If contractions have not diminished after 1 hour, a second GTN 10mg patch may be added. MgSO4 as 4 gm bolus dose or followed by IV infusion is deemed to be neuroprotective.

# C 06: Ectopic pregnancy

## Physiology & pathology of ectopic pregnancy

#### Dr Asanka Jayawardane

Senior Lecturer & Consultant Obstetrician & Gynaecologist, Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Colombo

## Medical management of ectopic pregnancy

#### Dr Ramya Pathiraja

Senior Lecturer & Consultant Obstetrician & Gynaecologist, Department of Obstetrics & Gynaecology, Faculty of Medical Sciences, University of Sri Jayewardenepura

Ectopic pregnancy is an increasing health risk for women throughout the world. Due to the recent advances in the measurement of serum beta hCG and trans vaginal ultrasound, ectopic pregnancies are diagnosed early and with increasing frequency and are much more conveniently treated my medical rather than surgical treatment.

Use of Methotrexate (MTX) is now reportedly achieves results comparable to surgery for the treatment of appropriately selected ectopic pregnancies and is commonly used

MTX is a folic acid antagonist which inhibit denovo synthesis of purine and pyrimidine thereby inhibit DNA synthesis and cell proliferation, Secondary to its effect on highly proliferative tissues it has a strong dose related potential for toxicity.

When medical treatment is offered, there is a need for appropriate risk management procedures to be applied which include safe handling, prescription and supply of chemotherapeutic agents,, Informed consent, documentation and adequacy of follow up arrangements and ready access to professional advice and surgical intervention in the event of an emergency.

A fixed multiple-dose IM regimen can be recommended for haemodynamically stable women with an unruptured tubal ectopic pregnancy and no signs of active bleeding presenting with serum hCG concentrations <3,000 IU/l. In women with serum hCG concentrations <1,500 IU/l, a single-dose methotrexate regimen can be considered. The addition of mifepristone to systemic methotrexate has been shown a possible beneficial effect,

Large uncontrolled studies have reported that about 14% of women will require more than one dose of methotrexate and less than 10% of women treated with this regimen will require surgical intervention.

## Surgical management of ectopic pregnancy

#### Professor Deepal S Weerasekara

Consultant Obstetrician & Gynaecologist

Tubal pregnancy can be managed by observation, medically, operative laparoscopically, or by laparotomy. Principles of management depend on clinical condition of the patient and the future fertility requirement. In a haemodynamically stable patient a laparoscopic approach to the surgical management of tubal pregnancy is preferred to open approach (Level A) Laparoscopic procedures are associated with shorter operation time, less intraoperative blood loss, shorter hospital stay, and lower analgesic requirements. Studies comparing laparoscopic surgery with open surgery shows that in women who desire future fertility the subsequent intra-uterine pregnancy rates were similar but in laparoscopic approach repeat ectopic pregnancy rates were lower. For salpingotomy laparoscopic approach was less successful than an open approach in elimination of tubal pregnancy as it gives rise to higher rates of persistent trophoblast. Management of tubal pregnancy in the presence of haemodynamic instability is best by laparotomy. Transvaginal ultrasonography can rapidly confirm the presence of haemoperitoneum if there is any diagnostic uncertainty. In the presence of a healthy contralateral tube there is no clear evidence that salphingotomy should be used in preference to salphingectomy. There are no RCTs that specifically compare laparoscopic with open salphingectomy and salpingotomy. The reviews published include data from observational studies. These data show that intrauterine pregnancy rates were similar when comparing the two groups but there was a higher subsequent ectopic pregnancy rate in salphingotomy arm (IIA). Therefore in the presence of contralateral tubal disease salpingotomy is appropriate but the woman must be made aware of the risk of a further ectopic pregnancy.

# C 07: Management of endometriosis

## Medical & surgical management of endometriosis

#### Professor Hemantha Senanayake

Professor in Obstetrics & Gynaecology & Head, Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Colombo

Endometriosis affects 5-10% of the world's women, with a good proportion of them having disabling symptoms and/or infertility. There are a variety of treatments for endometriosis, varying between medical and surgical measures. It is vitally important that treatment is individualized. There is no place for medical treatment in endometriosis – associated infertility. These will necessarily suppress ovulation, resulting in critical delays in instituting effective treatment. Deep dyspareunia is usually due to nodules and adhesions in the lower reaches of the pelvis. Inefficacy of medical treatment in this situation is well known and dyspareunia can only be relieved by surgery. Medical treatment is ideal for women who have

isolated dysmenorrhea, particularly useful with no immediate reproductive ambitions and those close to menopause.

There are a variety of medical treatments for endometriosis, varying from hormonal contraceptives to gonadotropin releasing hormone analogues. Consensus is that all these are of equal efficacy, differing only in side effects and cost. Depot medroxyprogesterone acetate and combined oral contraceptives are the cheapest. Pre or post surgical addition of medical therapies will not improve fertility but long-term progestagens will delay recurrence of endometriosis. Suppression of menses with levonorgestrelrelaeasing intrauterine system is another useful treatment.

Surgery in endometriosis poses unique challenges, particularly in the presence of deep infiltrating endometriosis and rectovaginal nodules. The ureters and rectum are particularly vulnerable in these situations. Ablation of peritoneal deposits will give relief of symptoms but excision will achieve a more complete removal of tissues. Surgery for endometriomas also poses unique challenges and dilemmas. The current trend is to excise the cyst wall down to the hilar area and to ablate the remaining, thereby avoiding possible devitalization of the ovary.

Total abdominal hysterectomy and bilateral salpingo-oopohorectomy should be reserved for failures of other treatments.

# **Endometriosis & Infertility**

#### Professor Harshalal R Seneviratne

Professor of Obstetrics & Gynaecolgy, Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Colombo

Endometriosis is a debilitating disease which occurs during the reproductive period of life and is known to adversely affect fertility. It is directly related to oestrogenic activity. However its aetiology may revolve around many factors including endogenous substances such as interleukins and the effect of exogenous organic and metallic elements may have immunological and other actions which could impair fertility. Their role in the causation of the disease and as to whether they have a direct or indirect influence on the fertility is unclear.

Fertility is greatly influenced by the extent of the follicle pool and female age. While the number of ova could be diminished by endometriosis and its treatment postponing fertility treatment to suppress endometriosis would result in unduly aging the ova. Further the pelvic structural damage particularly to the fallopian tubes and by extensive adhesions in the Pouch of Douglas could result in inaccessibility of ovaries for ovum pick up while increasing the risk of damage to bowel and other hollow viscus.

It is known that fertility potential in endometriosis is unpredictable and spontaneous pregnancies may occur even in those with severe endometriosis. It is therefore best to provide

Level 1 and Level 2 treatment for a defined number of cycles particularly in those with suppressed endometriosis and satisfactory tubal patency. Ascending infection is always a risk when intra-uterine insemination is performed. Medical and surgical treatment custom built for the needs of the patient is of great value in ensuring the success of treatment of all levels of severity.

The principles of selecting cases for the different ART protocols, the type of stimulation medications used etc. follow the systems as for ART cases in general. However the uncertainty of the other biological factors in affecting fertility always remain in the background and limit the success of fertility treatment.

# C 08: How to avoid a malpractice suit?

## **Obsteteric litigation**

Dr M D P Gunaratne

Consultant Obstetrician & Gynaecologist

## Civil & criminal liabilities from medical negligence

Mr G Alagaratnam

Attorney - at - law

## **UPDATES**

# U 01: Contemporary management of overactive bladder

# Mr Roger Walker, Mr Roland Morley, Ms Tharani Nitkunan

United Kingdom

The prevalence of the overactive bladder (OAB) in females varies from 8-42%. It increases with age and often occurs with other lower urinary tract symptoms (LUTS) and pelvic floor dysfunction. With an ageing population the burden of symptoms and incontinence associated with OAB is likely to increase.

In our presentation we review the basic science and latest developments in the field of OAB. We will discuss the assessment of the patient (including urodynamics), conservative and standard pharmaceutical management of the patient with OAB. Contemporary techniques of intradetrusor botox and neuromodulation will be evaluated. Traditional surgery (Clam ileocystoplasty) and its role now that newer techniques and the long term effects are known will be discussed.

We will present several difficult cases and invite discussion as to the management of OAB in 2012.

# **U 02: Contraception**

## **Postplacental IUCD insertion**

## Dr Ananda Ranatunga

Consultant Obstetrician and Gynaecologist, Castle Street Hospital for Women

Unsafe abortion is the second commonest cause of maternal deaths In Sri Lanka. Women who escape death from this may end up with sexual and reproductive ill health leading to permanent or temporary disabilities. Women who seek unsafe abortions are the ones with unintended pregnancies. Studies show that they are married multiparous women with young children. Postpartum women are particularly susceptible with an unintended pregnancy in the first year postpartum. (USA 10% - 44%). These unintended pregnancies do occur despite adequate counseling and recommendation of a contraceptive method prior to hospital discharge.

Considering the high unintended pregnancy rates, especially in the postpartum women, we need to introduce a reliable, effective and long-term contraception such as IUCD before a pregnancy occurs. In a country where 98% of the deliveries take place in institutions with qualified care givers, post placental insertion of an IUCD will address this need.

Postplacental insertion of IUCD is convenient and efficient. It appears safe, with low incidence of infection, few bleeding problems and low perforation rates. Although the expulsion rate in post placental insertion is higher than interval insertion, the benefits of highly effective contraception available immediately after delivery may outweigh the risks of expulsion. However high fundal IUCD placement by an experienced and trained clinician will reduce the expulsion rates. It averages between 7 – 15 per 100 users at six months. Postplacental insertions are done manually, with ring forceps or using sponge forceps. Success of postplacental IUCD insertion preventing unintended pregnancies depends on the correct insertion technique, careful post insertion instructions and close follow-up.

This is an opportunity not to be missed but to utilize a highly effective but underused method of postpartum contraception.

## Laparoscopic female sterilization

#### Dr Prashantha Gange

Consultant Obstetrician & Gynaecologist

Sterilization method would involve a simple, easily learned, one-time procedure that could be accomplished under local anesthesia and involve a tubal occlusion technique that caused minimum damage. The procedure would be safe, have high efficacy, be readily accessible, and be personally and culturally acceptable. The cost for each procedure would be low and there would be minimal costs for the maintenance of equipment. No currently available procedure meets all of these criteria, although mini laparotomy and laparoscopy come close.

If we compare mini laparotomy with laparoscopic sterilization, under local anesthesia, the abdominal invasion is usually sufficiently uncomfortable to make this procedure less acceptable by patients, particularly if laparoscopy is available as an alternative. A large, multicentre study comparing mini laparotomy and laparoscopy has shown few differences between the two approaches, as well as very low short-term complication rates.

When we consider the advantage of laparoscopic approach, Diagnostic advantages at the time of the operation, post operative lesser pain, minimum intra and post operative complications, Quick return to work/normalcy, Cosmetic acceptability, less tissue dissections and disruption of tissue planes can be considered.

Family health Bureau of Sri Lanka provides laparoscopic sterilisation under local anaesthesia for the clients who come from many parts of Sri Lanka. Most of them come with a prior appointment in the morning and they go home on the same day evening after 4 hrs of observations. We perform about 3000 cases per year. There were no major per operative or post operative complications noted during last 2 years.

We also had the opportunity to study pelvic cavities of females volunteering for laparoscopic tubal sterilization in Sri Lankan setting. This study highlighted a statistically significant

increase of pelvic adhesions in relation to prior Caesarean section (32.2% in LSCS patients Vs 3.8% in with no previous surgery).

## **Contraception in medical disorders**

#### Dr Asanka Jayawardana

Senior Lecture & Consultant Obstetrician and Gynaecologist, Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Colombo

# U 03: Recent advances in Artificial Reproductive Techniques

# **Current role of GnRH antagonist in ART**

#### Dr Milhan Batcha

Consultant Subfertility Specialist, Castle Street Hospital for Women

GnRH agonists are used in majority of IVF cycles worldwide. There is a clear shift towards the use of GnRH antagonist cycles in recent years. GnRH antagonists competitively block the GnRH receptors at the pituitary leading to immediate suppression. The advantages of GnRH antagonist protocol are, shorter duration of treatment, lower gonadotrophin requirement, less chance of ovarian cyst formation, lower incidence of ovarian hyper stimulation syndrome (OHSS) and avoiding estrogen deprivation symptoms.

Although Initial studies showed a reduced success rate for antagonists compared to agonist, recent data suggest very minimal difference in success rates. Lower pregnancy rates in the past were due to lack of experience and also due to the inclusions of dose finding studies.

Many clinical studies looked at various ways to improve success rates in antagonist protocol. Flexible and fixed date GnRH antagonist protocol did not show any clinical significance in pregnancy rates. There was a trend towards higher pregnancy rate with fixed protocol. In flexible GnRH antagonist protocol, initiating GnRH antagonists before day 6 was associated with higher pregnancy rate.

In GnRH antagonist protocols, GnRH agonists could be used for final oocyte maturation instead of HCG. The pregnancy rates did not show any significant difference but there was a trend towards lower pregnancy in the agonist triggered group. GnRH agonist trigger significantly reduces the incidence of OHSS compare to HCG.

Increasing the FSH dose after starting GnRH antagonist did not improve implantation and pregnancy rates. Interestingly oral contraceptive pre-treatment is associated with lesser pregnancy rates.

With no significant difference in pregnancy rates and statistically lower incidence of OHSS, antagonist protocols are becoming very popular worldwide.

## Repeat implantation failure in assisted reproductive technology: An update

#### **Dr Farouk Mahmoud**

Consultant Obstetrician & Gynaecologist, Durdans and Nawaloka Hospitals, Colombo

Despite a better understanding of molecular biology and advances in ART technology (ART), repeat implantation failure (RIF) continues to have a negative impact on IVF outcome. This paper reviews the aetiology and current management.

A search of pubmed and Cochrane data base and bibliography of relevant articles, reviews and abstracts of scientific meetings show that the key players for implantation are quality of embryo and receptive endometrial assisted by a conducive uterine cavity and transfer technique.

Successful culture to blastocyst-stage with sequential media has permitted selection of quality embryos after embryonic genomic activation thus improving outcome in RIF. Also, assisted hatching improved implantation rates in cases of hardening of the zonapellucida.

Receptivity of the endometrium is governed by hormonal, immunological and signalling molecules. Site-specific endometrial injury promoting angiogenesis and occlusion or excision of hydrosalpinges improved implantation and clinical pregnancy rates. Frozen embryo transfer and aspirin plus heparin for positive antiphospholipids had no impact on IVF outcome. However, corticosteroid treatment for the latter proved successful. Intravenous immunoglobulin for natural killer cells, sildenafil for thin endometrium and pre-implantation genetic screening to exclude aneuploidy and their role in RIF await further clinical assessment. Hysteroscopic evaluation was vital to exclude polyps, submucous fibroids and uterine malformations. Finally, transfer technique with minimal handling and trauma gave the best results.

Implantation failure remains an elusive factor and further research is required for appropriate management.

## **Current strategies to minimize OHSS in IVF**

#### **Dr Neil Seneviratne**

Consultant Obstetrician & Gynaecologist

# U 04: Interventional cardiology in pregnancy

## Scope of interventions in congenital heart diseases

#### Dr Sunethra Irugalbandara

Consultant Cardiologist

## Interventional cardiology in ischaemic heart disease and pregnancy

#### Dr G Mayurathan

Consultant Cardiologist

## Interventional cardiology in acquired valvular heart disease and pregnancy

## Dr Chandrika Ponnamperuma

Consultant Cardiologist

# U 05: Robotic surgery in gynaecology

#### Dr Jagdishwar Goud

Robotic Onco Surgeon & Head of Surgical Oncology, Krishna Institute of Medical Sciences & Robotic Institute, Hyderabad, India

# U 06: MRI – "Is there a role in Obsetrics?"

#### Role of MRI in fetal assessment

#### Dr. P. S. H. Hettiarachchi

Consultant Radiologist, Asiri Surgical Hospital

Magnetic resonance imaging (MRI) is a safe mode of imaging during pregnancy.

Since the development of fast imaging techniques MRI has been used to evaluate fetal anomalies. Ultrasound remains the modality of choice for evaluating disorders related to the fetus and pregnancy, mainly because of its relatively low cost and the availability. It also allows real-time imaging, assessment of fetal well-being, and provides quantitative assessment of fetal and placental blood flow with Doppler ultrasound. But the sensitivity of ultrasound is reduced by factors like maternal obesity, fetal position, and oligohydramnios which do not limit the visualization of the fetus in MRI. Visualization of the fetal brain is not

restricted by the ossified skull. MRI provides a larger field-of-view, facilitating imaging of fetuses with large or complex anomalies, and visualization of the lesion within the context of the entire body of the fetus. It provides very good visualization of the placenta and helpful in diagnosing placenta accrete and percreta.

## Advantages of MRI in pelvic imaging

#### Dr Kantha Samarawickrama

Consultant Radiologist, Asiri Surgical Hospital.

Trans abdominal and trans vaginal ultrasound are the 1<sup>st</sup> line of investigation in female pelvic imaging. In most of the instances it provides adequate diagnosis.

However US has its own limitations in certain conditions.

Diagnosis and staging of carcinomas is an important area where we need CT or MRI.

Utility of MRI is limited due to cost and availability. It provides excellent depiction of anatomy, high resolution and details of surrounding structures.

Other advantages are lack of radiation and therefore ability to use during pregnancy and in young age.

# U 07: Ovarian reserve – "Myth or reality"

# Serum Anti – Müllerian Hormone as a predictor of reproductive performance in Assisted Reproduction

## Dr Dharmawijaya Lekamge

Specialist in Obstetrics and Gynecology, Victoria

The established predictors of reproductive potential during infertility treatment are maternal age, early follicular phase FSH concentrations and, less popularly, serum inhibin B concentration. None of these parameters is a particularly reliable predictor of the number and quality of oocytes remaining within the ovary, or the likely probability of pregnancy from infertility treatment. Recently, interest in the use of anti-Müllerian hormone (AMH) and antral follicle count to predict patient response to ovarian stimulation has been intense. Both of these static markers reflect the number of small follicles poised ready to be recruited by the supra-physiological concentrations of FSH used during IVF stimulation, making them potentially useful predictors of IVF response.

AMH is a dimeric glycoprotein belonging to the transforming growth factor 13 (TGF 13) super family. In the ovary, AMH expression is first observed in the proliferating granulosa cells in primary follicles, with the highest levels of expression in pre-antral and early antral follicles, with concentrations then falling in mural granulosa cells of large antral follicles. Hence, it is thought that serum AMH concentrations are a reflection of the size of the growing cohort of small follicles, which in turn reflects the number of residual primordial follicles, or the ovarian reserve. AMH regulates follicular development by acting on two crucial stages of folliculogenesis. The first important function of AMH within the ovary is to inhibit the recruitment of quiescent primordial follicles into the growth phase. The second important function of AMH is to attenuate the stimulatory effect of FSH on growing follicles.

Experience and usefulness of Serum Anti – Müllerian Hormone as a predictor of reproductive performance including number of oocytes retrieved and pregnancy outcome during Assisted Reproduction will be presented.

## Ovarian reserve & menopause

#### Dr Asanka Jayawardana

Senior Lecture & Consultant Obstetrician and Gynaecologist, Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Colombo

Menopause, defined as the final menstrual period, can only be diagnosed retrospectively after 12 consecutive months of amenorrhoea. The age at which menopause occurs has a wide normal distribution, with a mean of 51 years. It is a significant life event, signifying exhaustion of responsive ovarian follicles. Premature ovarian failure is defined as menopause occurring at an age less than 40 years with basal FSH levels >40 IU/l.

Human ovarian reserve presumes that the ovaries establish several million follicles at around four months of gestational age, with ever decreasing numbers thereafter. As only 450 ovulatory cycles occur in the normal human reproductive lifespan, this progressive decline is attributed to apoptosis. Recent reports of presence of mitotically-active germ stem cells with in juvenile and adult mouse ovaries have added controversy to this long held understanding.

Menopause signifies the end of a woman's reproductive capacity and with ever increasing social demands and late childbearing, diminishing ovarian potential is a significant worry to many women. Early age at menopause has been associated with increased cardiovascular mortality, osteoporotic fracture and colorectal cancer as well as respiratory and urogenital disease. Some women and cultures may view menopause as a relief from the monthly bleeds but for many women find physical and psychological symptoms problematic. Therefore the ability to predict and measure the ovarian reserve or menopause would pose enormous implications for women, healthcare providers and society.

Many changes in the endocrine regulation of ovarian function with advancing age have been investigated (oestradiol, progesterone, lutenising hormone and activin) which are not

clinically useful as a predictive test. Features/ tests which hold more promise are chronological age, family history, anti-Müllerian hormone, poor response to *in vitro* fertilization, basal follicle-stimulating hormone, ovarian volume and antral follicle count for long term prediction. For short term prediction, basal FSH, inhibin B, cycle shortening and occurrence of vasomotor symptoms may prove useful. However none of these markers have been found to have sufficient predictive accuracy in individual women yet.

## Ovarian reserve & infertility

#### Professor Athula Kauarachchi

Professor in Obstetrics and Gynaecology, Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Colombo

The term "ovarian reserve" refers to a woman's current supply of eggs, and is closely associated with reproductive potential. In general, the greater the number of remaining eggs, the better the chance for conception. As a woman ages, her supply of eggs gradually declines over time until the eggs are depleted at menopause. Although we expect the ovary to age in a certain way, there are times when it doesn't behave as predicted. As a result age cannot be considered as the sole factor of predicting the ovarian reserve. In a subfertile population, the availability of an accurate screening test of ovarian reserve would provide a valuable means of predicting the chances of pregnancy and live birth with or without treatment and selecting an optimal dose of ovarian stimulation where treatment using ovarian stimulation is planned.

Hormonal markers and ultrasound parameters have been used to attempt to estimate ovarian reserve and to predict which patients are likely to have a poor chance of success in fertility treatment including assisted reproductive techniques (ART). These markers and parameters include age; concentrations of follicle-stimulating hormone (FSH), luteinizing hormone (LH), estradiol, inhibin, anti-Müllerian hormone (AMH),ovarian volume, ovarian antral follicle count (AFC). Further studies have introduced the use of dynamic tests using a gonadotropin-releasing hormone agonist (GnRH-a), FSH, or clomiphene citrate to assess ovarian function.

In spite of many tests that are preformed to assess ovarian reserve there is no one particular test that can be used with accuracy. Problems with some of the tests include observed cycle differences, biological variation, and intra-observer differences. As a result often tests are combined to assess the ovarian reserve.

# U 08: Haemoglobinopathies in pregnancy

Epidemiology & burden of thalassaemia in pregnancy

Dr Dayananda Bandara

Consultant Haematologist

## **Investigation and management**

## Dr Nipunika Senadeera

Consultant Haematologist

Haemoglobinopathy in pregnancy, especially Sickle cell disease, is associated with both maternal and fetal complications and increased perinatal mortality. As pregnancy may be the first encounter with medical facilities or blood testing for some women, obstetricians frequently come upon undetected haemoglobinopathies and career states in their practice. Furthermore, the advances in management have led to survival of patients with major haemoglobinopathies into child bearing age and assisted fertility is enabling some to overcome sub fertility caused by iron overload.

Diagnosis of a haemoglobinopathy in pregnancy is not different to that outside this state. But more aggressive approach to diagnosis is recommended with partner screening to assess the risk to the fetus. High Performance Liquid Chromatography (HPLC) has almost replaced electrophoresis as detection of variant haemoglobins as quantification of Hb A2, the diagnostic parameter for beta thalassaemia carrier state, is more reliable by this method. Interpretation of the HPLC result together with red cell indices, blood picture and iron status leads to a more conclusive diagnosis. Genetic testing with DNA analysis, although not routinely performed in other instances, has an important role in prenatal diagnosis and needs chorionic villus samples or fetal blood obtained by cordocentesis.

Management of a pregnant woman with a haemoglobinopathy requires a multidisciplinary team approach. During pregnancy the transfusion requirement can increase and iron chelators may have to be withheld due to potential teratogenicity. Monitoring for cardiac and endocrine complications e.g. diabetes and thyroid disease is important. Those with sickle cell disease should take measures to prevent dehydration and infections and thromboprophylaxis is recommended.

Ante-natal diagnosis, intra-uterine intervention, and post-natal therapy for haemoglobinopathies are not widely practiced in our country as yet. However, Doppler ultrasonography of the middle cerebral artery reliably detects foetal anaemia which can be successfully managed with intrauterine transfusions.

# Role of an Obstetrician in thalassaemia prevention

### Dr Rasnayaya M Mudiyanse

Senior Lecturer in Paediatrics, Department of Paediatrics, Faculty of Medicine, University of Peradeniya

The management of thalassemia is an arduous task for patients, parents and relatives, and is a drain on the health care resources of a country. The mainstay of the management of

thalassemia is blood transfusion and chelation therapy with the management of subsequent complications. Bone marrow transplant has proved to be a cure but is costly and demands long-term adherence to treatment.

Thalassemia prevention is feasible. Several options are available for the gynaecologists to help towards this worthy objective. Antenatal diagnosis and abortion has proven to be successful in several countries (Model 2008). Pre implantation genetic diagnosis is an attractive option but necessitates the need for technology for in-vitro fertilization and intra cytoplasmic introduction of sperm (Sermon 2004). Artificial insemination of sperms from a non-carrier donor is a practical solution as long as its psychosocial aspects are understood with meticulous care. Pre marriage counselling and avoidance of high-risk marriages has been practiced in some regions with remarkable success (Ahmed 2011) (Karimi 2007) (Modell 2004). The National Thalassemia Prevention Programme in Sri Lanka has taken a novel step forward in approach by recommending the option of voluntary teenage screening and counselling to provide guidance for safe marriages.

This community education based prevention programme needs monitoring and navigation for success. Screening based on MCV and MCH seems reliable enough for this purpose (Alireza Moafi 2010). Screening coverage at PHM divisions, identifying the percentage of high-risk marriages at MOH divisions, the incidence of high-risk pregnancies detected at antenatal clinics and the national burden of thalassemia has been recognized as indicators that reveal the success of the National Thalassemia Prevention Programme. The incidence of thalassemia is less sensitive as the diagnosis is established only when babies are symptomatic for several months after birth. It is only the VOG who has purview over the sensitive and specific indicators that are needed for the successful implementation of this programme of high national priority.

Thus the question posed is who will be responsible for the projected eighty thalassemia babies arriving in our country next year with a tentative budget plan of 800 million rupees, and what about the years thereafter?

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### **INVITED LECTURES**

#### IL 01: PCOS - Treat or not to treat

#### **Dr Jaydeep Tank**

Assistant Honorary Professor,

K J Somaiya Hospital and Medical Research Center, K J Somaiya Medical College, India

## IL 02: Severe pre-eclampsia & eclampsia

#### Dr Dhinuka Lankeshwara

Consultant Obstetrician & Gynaecologist

Hypertensive disorders of pregnancy affect about 10% of all pregnant women around the world. In Asia nearly one tenth of all maternal deaths are associated with this pregnancy complication.

Consensus has been reached in management protocols in several aspects of pre-eclampsia and eclampsia. However, recent scientific work proves that still there is room for improvement.

A review of recent literature has highlighted the increasing interest on prevention of these conditions. The role of magnesium sulphate in prevention of eclampsia is well known. High quality evidence appeared regarding several preventive strategies of pre eclampsia. Following a Cochrane review, the role of anti-platelet agent, aspirin ,for prevention of pre eclampsia in high risk mothers was addressed in several clinical practice guidelines. Similarly, supported by a Cochrane review, World Health Organization recommended calcium supplementation as a preventive modality for pre-eclampsia specially in areas where dietary calcium intake is low. The role of vitamin D in prevention of pre-eclampsia is still being debated.

Identification of mothers who at the highest risk of developing pre-eclampisa later in pregnancy allows application of more effective preventive strategies. As the positive predictive value of the conventional risk factors is low, newer studies concentrate on markers which are ultrasonic, bio chemical and immunological. A mathematical model for the calculation of individual risk is being worked out with the hope of promising results.

A few management dilemmas of eclampsia and pre-eclapsia have been addressed in recent studies. The HYPITAT trial concluded in one of its analysis that women with gestational hypertension or mild pre-eclampsia at term who have an unfavourable cervix benefited more from labour induction than other women. Induction of labour versus expectant monitoring for gestational hypertension or mild pre-eclampsia between 34 and 37 weeks gestation is being assessed in HYPITAT-II and the results are awaited.

Counselling patients regarding future outlook following pregnancies complicated by preeclampsia and eclampsia has been refined with availability of more evidence of long term complications. More accurate figures for rates of recurrence and rates of long term risks such as chronic arterial hypertension, stroke, acute coronary disease, venous thrombo embolism, renal diseases and mortality are now available.

## **IL 03: Hysteroscopy**

#### Dr Mayuramana Dewolage

Consultant Obstetrician & Gynaecologist

First hysteroscopy is performed by Pantaleoni in 1869. Since then the procedure gradually develops in to current standards. Hysteroscopy is a minimally invasive intervention that can be used to diagnose and treat many intrauterine and endocervical problems.

Hysteroscopic polypectomy, myomectomy, and endometrial ablation are just a few of the commonly performed procedures. Given their safety and efficacy, diagnostic and operative hysteroscopy have become standards in gynecologic practice.

Common indications for the hysteroscopy are abnormal uterine bleeding, (94% sensitivity and 89% specificity), fibroids and polyps, removal of foreign bodies, suspected intra uterine adhesions, subfirtility, mullarian abnormalities and sterilization (Essure).

Active uterine infections pregnancy and severe medical conditions are the contraindications for hysteroscopy.

Uterine perforation, bladder bowel damage, bleeding, infections, failure to gain entry,damage to uterus and death (3-8/100000) are the complications of the procedure.

Rigid and flexible hysteroscopes are commonly used in current gynaecological practice. Other types include contact hysteroscope, which does not need distension media and microhysteroscope which has the advantage of up to 150 magnification.

Smaller instruments and outpatient procedures are encouraged by Royal College of Obstetricians and Gyaecologists.

## IL 04: Pre conceptional counselling

#### Dr Nalinda Rodrigo

Consultant Obstetrician & Gynaecologist

Optimizing health prior to pregnancy is of utmost importance, especially in today's' setting when 11% of first births occur in women aged 35 or above, in whom non-communicable diseases like hypertension and diabetes are more prevalent. Increased emphasis on preconceptual care is essential as many of the pregnancies are unplanned. According to the Bulletin of the WHO 2010, preterm birth rates have been reported to range from 5% to 7% in

developed countries and are estimated to be substantially higher in developing countries, in spite of advancements in medicine and prenatal care.

Pre-pregnancy counseling is the foundation of preconceptual care. Therefore, every general practitioner, obstetrician and public health midwife should take the opportunity to educate their patients on issues relating to pregnancy.

Advice and encouragement to stop smoking and alcohol prior to conception should be offered as it reduces fertility in both males and females. The supplementation of 400 mcg to 5 mg of folic acid is the most significant preventive intervention in the preconception period to reduce the incidence of neural tube defects. Checking rubella immunization status of the woman prior to conception, vaccinating for hepatitis in those at risk, varicella vaccinations and advice on diet, exercise and ideal body weight to improve pregnancy outcome are invaluable.

A review of current medications for chronic illnesses such as asthma, diabetes, hypertension, heart disease, epilepsy, thyroid disease and mental health problems like depression is essential to identify teratogenic drugs and optimize control prior to pregnancy.

Counseling regarding age-related risks of fetal chromosomal abnormalities like Trisomy 21 and adverse pregnancy outcome and genetic counseling for couples with a family history of inherited disorders such as thalassemia should be given prominence.

Extensive effort on the part of the health professional to enforce the aspects of preconceptual care would greatly improve pregnancy outcome and ensure a happy ending for all involved.

#### IL 05: Liver diseases in pregnancy

## Dr Anuradha Dassanayake

Senior Lecturer & Consultant Physician, Department of Medicine, Faculty of Medicine, University of Kelaniya

Liver function abnormalities are commonly encountered in pregnancy. Some liver function abnormalities are benign and should be recognized early to avoid unnecessary investigations. Liver function abnormalities due to fatty liver are common in the society should be recognized from more sinister causes for elevated transaminases.

Elevations of Liver disease in pregnancy can be divided in to pre existing liver disease, liver disease unique to pregnancy and inter current liver illnesses during pregnancy. It is important to diagnose liver disease unique to pregnancy because delivery is going to be life saving in some instances.

Viral hepatitis during pregnancy can be a serious illness and usually managed like in a non pregnant patient. Effective vaccinations are available for both hepatitis A and B at present.

## IL 06: HPV vaccination in prevention of cervical cancer

#### Dr Kanishka Karunaratne

Consultant Gynaecologist in Oncology National Cancer Institute, Maharagama.

Human papilloma virus (HPV) is a common viral infection of squamous epithelial tissues which is sexually transmitted. These viruses consist of many genotypes and are associated with a diverse spectrum of clinical manifestations. In the genital tract HPV infections are the commonest sexually transmitted infections which are largely transient, asymptomatic and of no consequence. However, chronic carriage of oncogenic genotypes together with other cofactors., in complex pathways not totally understood, result in severe dysplasia or carcinogenesis.

On a global scale, cervical cancer is the second most common cancer of women, with the majority occurring in developing countries. Successfully applied molecular biology techniques have underpinned development of vaccines which are now in phase III clinical trials. In two recent double blind trials using HPV 16 and 18 viral like particles in 3 dose regime in young women, a robust immune response (with titres far greater than natural infections) occurred in 99.7%.

However there are several key issues that are undetermined and will keep researchers occupied for sometime. These include evaluation of long-term safety, duration of protection, number of doses required, age groups to be targeted, correlation between antibody titres and protection, cross protection against other HPV types and male response to vaccines.

In developed countries with important screening efforts in place and relatively low rates of cervical cancers, HPV vaccines delivered to adolescent cohorts are not likely to have visible impact on cervical cancer rates in the short and medium terms. In contrast, major impact is expected in the reduction of substantial fraction of pre-neoplastic lesions. This should represent a major reduction in cost and anxiety associated with screening programmes.

#### **IL 07: Dengue and pregnancy**

## Dr Ananda Wijewickrama

Consultant Physician, Infectious Diseases Hospital, Colombo

Dengue has become hyper-endemic in Sri Lanka: ie. we have got all 4 serotypes, affecting all age groups and it has spread all over the country. More and more adult cases are now reported and we see more cases of Dengue Haemorrhagic Fever among adults. Pregnant females are not spared, and in fact, they are at high risk of developing complications.

In the present day dengue should be considered in the differential diagnosis in any patient with fever. Febrile pregnant ladies should have their vital signs recorded and blood counts

done as early as possible to detect the baseline as pregnancy itself can change these parameters. Dengue suspected pregnant ladies should be admitted early and monitored more carefully for the development of fluid leakage, the hallmark of DHF. Their fluid management is similar to non- pregnant patients.

There is a higher risk of fetal distress and fetal death in dengue illness. Delivery, normal or otherwise, during critical period can put mother life in danger, hence should not be induced unless to save mother's life. Similarly, LSCS and other maneuvers also should be avoided during this period. This is because such procedures during the critical period can precipitate severe bleeding and has a higher chance of maternal mortality.

## IL 08: Obstetric anaesthesia - QUO - VADIS

#### Dr R Pallemulla

Consultant Anaesthetist

## IL 09: Pre term baby - Viability margin

#### Dr Medha Weerasekara

Consultant Neonatologist, Sri Jayewardenepura General Hospital

## IL 10: MDG and beyond

#### Dr Palitha Gunarathna Mahipala

Additional Secretary (Medical Services), Ministry of Health, Sri Lanka

# IL 11: Obstetric infections - "The intrauterine victim"

#### Dr Rasika Herath

Consultant Obstetrician & Gynaecologist

#### IL 12: SLCOG takes new turn

#### Dr Hemantha Perera

Consultant Obstetrician & Gynaecologist, Sri Jayewardenepura General Hospital

Sri Lanka College of Obstetricians & Gynaecologists started in 1953 as an Association of a handful of dedicated obstetricians. The objective was as follows. "The Association of Obstetrics and Gynaecology is not a trade union, nor does it exist for the main purpose of fighting for the rights and privileges of its members. The only fight that figures in our aims is that against maternal and infant mortality".

With their active involvement, Maternal Mortality care down very rapidly, making Sri Lanka a model for the world. Over the decades, successive SLCOG councils have broadened the scope of the activities encompassing the diverse aspects of women's Health.

In 2012, the council ratified a Strategic Plan for 2012 – 15 clearly documenting the goals towards which our activities are focused. It is significant that, sometime later, the Government two has come out with a National Strategic Plan which seems to have grasped many of the points described in our strategic plan, indicating that our thinking has been on line with the National needs.

It is fervently hoped that the Health administrators will see the value of the voluntary effort of a group of dedicated Professionals who are willing to go out of their way for a common cause - a better tomorrow for Sri Lankan women.

## **IL 13: Nutrition in pregnancy**

#### Dr Renuka Jayatissa

Head.

Department of Nutrition, Medical Research Institute, Colombo

The needs for most nutrients are increased during pregnancy to meet the high demands of both the growing fetus and the mother, who herself goes through a period of growth to carry the child and prepare for lactation.

A mother who is underweight prior to becoming pregnant also puts her baby at higher risk for complications. Maternal malnutrition during pregnancy may influence fetal programming, which lead the child to be more susceptible to heart disease, diabetes, and high blood pressure in later life. Malnutrition may be due to illness, food insecurity, or other factors, and both the malnutrition and the underlying cause need to be address to maximize positive outcomes for both mother and baby.

The consequences of poor nutritional status and inadequate nutritional intake for women during pregnancy not only directly affects women's health status, but may also have a negative impact on birth weight and early development. Low birth weight also results in substantial costs to the health sector and imposes a significant burden on society as a whole. Underweight women should be carefully monitored to ensure that they are meeting their nutritional needs during pregnancy, and weight gain goals should be emphasized.

The prenatal period is a time of increased risk for omega-3 deficiency as maternal tissue stores tend to decline as they are used for the developing fetus. Consumption of fish is recommended to pregnant women to fulfill their omega-3 requirements.

Supplements may need to be customized to ensure that the mother to meet her nutritional requirements. Referrals to poverty alleviation programmes to help the mother to obtain food and assistance may be necessary if malnutrition is caused by food insecurity.

## IL 14: Vascular emergencies in pelvic surgery

#### **Dr Reznie Cassim**

Consultant Vascular Surgeon

## **IL 15: Problems of puerperium**

#### Dr Sampath Kariyawasam

Consultant Obstetrician & Gynaecologist, District General Hospital, Mullaithivu

The puerperium, the first 6 weeks from delivery, is a time of vital significance to the mother though it is received relatively less attention when compared to antenatal period in maternity care services. During the puerperium pregnancy-related anatomical adaptations of the reproductive organs and physiological changes gradually return to the non-gravid status. Furthermore it is also a time of psychological adaptations to become a responsible parent while she enjoys the arrival of the new-born.

Studies have shown that morbidity associated with the puerperium is often underestimated. Health problems in puerperium are postpartum haemorrhage/anaemia, genital tract and other infections, issues related to perineum(pain, wound break down, sphincter injuries), breast problems(mastitis, breast abscess), headache, postnatal mental health conditions(blues, depression, psychosis), sexual health, constipation, haemorrhoids, voiding difficulties and urinary incontinence, symphyseal diastasis and domestic violence. The puerperium is a very high risk time for patients with some cardiac conditions and bleeding disorders. Diabetic and hypertensive mothers need additional assistance during puerperium. Postpartum haemorrhage, infections and thromboembolism contribute to significant proportion of maternal mortality. Careful assessment for thromboembolic risk is very important to prevent its high morbidity and mortality.

Principles in planning post-natal care including continuity of care, mother-infant bonding, early ambulation, flexible discharge policies and emotional and physical support help to reduce this morbidity and mortality. The care bundle should include monitoring of the puerperal physiological changes, managing any gestational and postnatal complications, providing emotional support and assisting for her further fertility wishes. It is vital that good communication bridge between various health care providers in the institutions and the filed. It is important to avoid giving conflicting advice by various healthcare providers and friends.

Care plans for this transition must be put in place from early pregnancy to maintain continuity of care and send home with a "safety net".

## IL 16: Health messaging through volunteers

#### Dr Hemantha Perera

Consultant Obstetrician & Gynaecologist, Sri Jayewardenepura General Hospital

Sri Lanka has a very high literacy rate, both written and spoken. We also have one of the best, if not the best field midwifery services in the world. As these midwives live in their area of supervision, a team of reasonably educated volunteers from their locality could be used in a grass root level health messenger/ monitor role very effectively under the guidance of the midwife. Menopause Society of Sri Lanka started a project in the Tea estates of Sri Lanka to disseminate knowledge on key areas in menopause and to pick up relevant clinical features and to refer to their supervising midwife.

World Bank has selected this program for funding and has planned to use it as a model for other countries. SLCOG is too planning to use this model for future programs

## ABSTRACTS OF ORAL PRESENTATIONS

## **OP 01:** Association of Infective agents with Pre-eclampsia

Amarasekara R<sup>1</sup>, Jayasekara R W<sup>1</sup>, Senanayake H<sup>3</sup>, Dissanayake V H W<sup>1,2</sup>

<sup>1</sup>Human Genetics Unit, <sup>2</sup>Department of Anatomy, <sup>3</sup> Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo, Sri Lanka.

#### Introduction

Pre-eclampsia is one of the leading causes of maternal/ infant morbidity and mortality. It is associated with defect in placentation caused by genetic and/or other factors including infection.

#### Aim

A comparative study of infective agents present in placental tissues of women with pre-eclampsia and normal pregnant women using molecular genetics techniques.

## Methodology

Placental tissue samples of 55 patients with pre-eclampsia and 55 normo-tensive women harvested under aseptic conditions were tested for the presence of 16S rRNA gene of bacteria and 28S rRNA gene of fungi. Samples detected positive for the presence of bacteria/fungi were cloned in to pGEM – T vector and sequenced. Viral meta-genomics was performed for the detection of Viruses.

#### Results

Samples of women with pre-eclampsia: 7 (12.7%) had 16s rRNA; 1 (1.8%) had 28s rRNA, and 0 had viruses. None of the samples from normal women had bacteria, fungi or viruses. The bacteria identified from women with pre-eclampsia were *Bacillus cereus* in 1 sample (14.2%); *Bacillus sp.* in 4 samples (57.1%); *Stenotrophomonas* in 1 sample (14.2%); *Clostridium oceanicum*in 2 samples (28.5%); *Mycobacterium* in 3 samples (42.8%); *Phytophthoracinnamoni*in 2 samples (28.5%); *Fermicutes* in 1 sample (14.2%); Uncultured bacteria in 3 samples (42.8%). Multiple infections were found in 6 (85.7%) samples. The fungus identified was *Malasseziarestricta* strain.

#### Conclusion

This study provides preliminary evidence for the presence of infective agents in placental tissue of women with pre-eclampsia pointing to the role of infective agents in the multifactorial aetiology of pre-eclampsia.

# OP 02: Audit on evaluation of documentation following operative vaginal delivery

<u>Tilakaratna T J</u>, Ratnasiri U D P *De Soyza Hospital for Women* 

# **Objectives**

Operative vaginal delivery is a high-risk intervention that requires both experience and skills. Following the clinical encounter, the documentation of the event is important for numerous reasons including medico-legal implications.

Aim of the audit was to evaluate the completeness of documentation compared to international standards and take necessary measures to rectify any deficiencies in documentation.

#### Method

This retrospective audit was conducted at ward 05 DSHW, Colombo from January to October 2010. Completeness of documentation following an operative vaginal delivery was assessed and compared with standards published by Society of Obstetricians and Gynaecologists of Canada and clinical practice guidelines and the ALARM course syllabus. Data was collected according to audit proforma and all women delivered by operative vaginal delivery during this period were included.

#### Results

83 patient records were assessed according to 14 evaluation keys.

The elements most likely to be documented were type of instrument(100%), indication (89%), prerequisites such as emptying the bladder &analgesia(75.9% and 83.1%), amount of pressure generated during vacuum(68.4%). Most poorly documented element was consent and the risk benefits of the procedure(2.4%). Position, station and presence of caput, molding (57.8%), and estimated blood loss (38%), number of attempts (19.2%) were inadequately documented. Fetal and maternal complications were mentioned only when occurs but no negative remark when they were absent.

#### Conclusions

Overall completeness of the documentation was inadequate.

Structured operative vaginal delivery record must be introduced to clinical practice with separate consent form.

Re audit has to be planned 6 months after to evaluate the adequacy of documentation.

# OP 03: Decision to delivery time in emergency caesarean section and its correlation to perinatal out come in a resource restricted setting

Ziard M H, De Silva S D, Jayasinghe J A J N, Kariyawasam L Ward 07, Castle Street Hospital for Women, Colombo 7

# **Objectives**

To audit indications, decision to delivery interval (DDI), delays contributing to DDI and correlate the overall perinatal outcome with DDI of emergency Caesarean Section (CS).

### Method

An audit was conducted to assess above mentioned categories. DDI of 30 minutes was taken as the cut-off. Adverse perinatal outcome was measured through APGAR score, admission to PBU, resuscitation at birth and early neonatal death. Findings were presented to ward staff and monthly perinatal review. A re–audit was conducted and 63 emergency CS was studied.

# **Results**

Thirty-one CS were audited initially. Indications were mentioned in all. Time of decision (TOD) was not mentioned in 3 (9.7%). Only 9 (29%) CS had been performed within 30 minutes. DDI of the remaining ranged between 38-261 minutes. Reason for delay was not mentioned in any. APGAR was > 7 in 28 (90.3%). There were 5 (16.1%) admissions to premature baby unit (PBU), 4 (12.9%) resuscitations at birth and 3 (9.6%) neonatal deaths.

In the re-audit TOD was mentioned in all. Twenty-one (33.3%) CS was performed within 30 minutes. DDI of the remaining ranged from 37-254 minutes. Commonest reason for delay was theatre being occupied -20 (47.6%) whereas reason was not mentioned in 13 (31%). There were 2 (3.1%) admissions to PBU, one baby (1.6%) was resuscitated and one died (1.6%).

#### Conclusion

This study highlights the difficulties to reach recommended target interval. Despite this failure there was no significant correlation between the DDI and perinatal outcome. One solution to improve the target is to identify the degree of urgency and communicate with members of health team involved in emergency obstetric care.

# OP 04: Vaginal Birth after Caesarean Section success rate and the contributory factors – A Prospective Cohort Study

Tilakaratna T J, Fernandopulle R C

# **Objectives**

Caesarean section rate is increasing globally. One of the main indications is repeat caesarean delivery due to past section. Women opting for vaginal birth after caesarean section will be one of the strategies to reduce elective repeat LSCS rate.

This study aims to determine the success rate of VBAC in a tertiary care setting in Sri Lanka and the contributory factors for the success.

#### Method

This prospective cohort study was conducted at ward 21 CSTH and ward 05 DSHW from July 2009 to April 2011. 161 eligible pregnant women who delivered at above units with one past LSCS were recruited from 36 weeks onwards of gestation. Data was obtained by a structured data sheet before and after the delivery.

## **Results**

Out of 161 who attempted VBAC, 112 women (69.6%) achieved successful vaginal birth. 49 women (30.4%) were delivered by emergency LSCS. Factors such as indication for the previous LSCS, previous vaginal deliveries, birth weight < 3000g, cervical dilatation > 2cm at admission, position of the fetal head were found to be significantly associated with the success rate of VBAC. Maternal BMI < 30 increases the success rate even though not statistically significant. Advanced maternal age, augmentation of labor are factors that decrease the likelihood of success rate.

### **Conclusions**

VBAC is an effective method to reduce rising caesarean section rate. Several antenatal and intra partum factors associate with the success of VBAC in individual patients will be helpful in counseling and decision making. More multicenter studies are needed to see the applicability in both well resource and low resource settings.

# OP 05: Survey on knowledge and practice of pre-eclampsia and eclampsia among SLCOG members 2012

<u>Wasalthilaka C D</u>, Gunawardana G H K K *Teaching Hospital Kandy* 

#### Introduction

Pre-eclampsia and eclampsia stand out as major causes of maternal and perinatal mortality and morbidity. Majority of complications are avoidable through the provision of timely and effective care to patient

# **Objective**

To examine the knowledge and practice patterns of obstetricians concerning management of pre-eclampsia and eclampsia.

# **Study Design**

Internet based survey was emailed to 143 SLCOG members whose email addresseswere available in the SLCOG. Subsequently survey was sent via post to the non-responded members.

#### Results

Fifty-two out of 143 members (36%) responded to the initial web based survey. Thirty-one out of 91 members (34%) responded to postal survey. Altogether a total of 83 (58%) completed surveys were analyzed using Epi-info 7.0.

Seventy-nine percent of members think pre-eclampsia is a multi-systemic disorder with placental etiology. Majority still use boiled urine sample to assess proteinuria (77%). 79% of members think low dose Aspirin can prevent pre-eclampsia. 65% of members recommend uterine artery Doppler to predict pre-eclampsia. 50% of them believe bed rest is beneficial for PIH patients. Only 10% of members are using Labetalol for the severe preeclampsia. Still 4% of members are using Diazepam as the first line of treatment for eclampsia. 55 % of members recommend steroids to treat HELLP syndrome.

#### Conclusion

There is a lack of uniformity in the management of key areas in preeclampsia and eclampsia among the SLCOG members. These findings emphasize the need of proper local guideline to manage hypertensive disorders in pregnancy.

# OP 06: Audit on artificial separation of membranes (ASM) as a mean of cervical ripening method

<u>Tilakaratna T J.</u> Rohan L C R *Teaching Hospital, Kandy* 

# **Objective**

ASM was implemented as a cervical ripening method and assess the reduction of Foley induction rate for past date pregnancies at Ward 06 Teaching Hospital - Kandy.

#### Method

Audit was conducted on past date singleton pregnancies during April to July 2012. Data was collected retrospectively from patient records according to data sheet.

Foley induction rate for past date pregnancies at ward 06 was assessed during April and May.

ASM was offered to past date pregnancies at 40week+1day and 40week+3day during June and July. When Bishop's score was < 6 after ASM at 40weeks +4day, foley induction was offered and the rate was calculated.

Reduction in Foley induction rate was compared with set standards.

#### **Results**

127 past date pregnancies were included. 26 out of 68 women during April, May were undergone Foley induction and rate was 38%.

During June, July 59 women were undergone ASM and 13 needed Foley inductions. The rate was 22%.

Caesarean section rates of women with past dates during April, May was 30.8% and it was 25.4% during June &July.

# **Conclusions**

With implementation of ASM, Foley induction rate has been decreased by 16%. This reduction was statistically significant(p=0.048) and results are compatible with the international standards of 15% reduction in formal induction rate. The reduction in LSCS rate during June, July compared to April, May was not statistically significant (p=0.46).

ASM in women with past dates is an effective, simple and inexpensive method to reduce Foley induction which will be implemented for further 6 months and re-audit is planned.

# OP 07: Laparoscopic ablation of uterine nerve (LUNA) – Not to be dismissed without consideration?

# Karunananda S A

Head, Department of Obstetrics & Gynaecology, Faculty of Medicine, University of Peradeniya

# **Objective**

Objective was to ascertain the efficacy and safety of the procedure in providing relief from chronic pelvic pain.

# Design, Settings & Method

The principal assumption was that, in women with chronic pelvic pain LUNA would help in alleviating pain and improve quality of life at the end of 6 months, one and 2 years.

Chronic pelvic pain was defined as pain below the umbilicus lasting over a period of 6 months. This included deep dyspareunia and dysmenorrhoea. The 46 cases selected had already been treated with limited success for such pain, some for proven coexisting pathology. Patients were counseled pre operatively except where decision had to be made on the table in 2 instances.

All were treated with the use of mono-polar diathermy for the nerve ablation. Coexisting pathology when detected was treated with bipolar diathermy or the harmonic scalpel. Simple pain scoring (mild moderate to severe) was adopted. Visual analogue score was confusing and poorly interpreted, inconsistently reproduced and had to be replaced by simpler scores.

# **Results**

There were no major complications related to the procedure within the given time frame.

An improvement of pain was reported by 63% of patients at 6 months, dropping to 54% at one and two years.

#### Conclusion

The procedure coming under much scrutiny of late still seems to have something to offer with minimal risks specially in a setup where chronic pelvic pain is often shrugged off (special pain clinics are non-existent).

# OP 08: Gossypiboma, after abdominal hysterectomy – A rare cause of acute abdomen

#### Lata I

Assistant Professor, Department of Maternal & Reproductive Health, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India

#### Introduction

Gossypiboma, term is derived from the combination of Latin words "gossypium" (cotton) and the Swahilli "boma" (place of concealment). Gossypiboma is a term used to describe a mass within the body that comprises a cotton matrix surrounded by a foreign body reaction. It refers both to a fabric body involuntarily left in the patient during surgery and the reactions secondary to its presence in the body.

#### **Material & Method**

We are presenting case of a 45-year-old woman who was referred from periphery hospital with acute pain in abdomen. She had a surgical history of abdominal hysterectomy 3 years back, performed at another hospital. On clinical examination and investigation twisted ovarian cyst was suspected. There was a cystic mass further confirmed by abdominal computerized tomography. During laparotomy, the cyst wall was opened incidentally which lead to the drainage of a large amount of dense pus. In between pus there was found retained surgical gauze that confirmed the diagnosis of gossypiboma.

### **Discussion**

Surgical mop retained in the abdominal cavity following surgery is a serious but avoidable complication. Two usual responses to retained mops are exudative inflammatory reaction with formation of abscess, or aseptic fibrotic reaction to develop a mass that leads to future complications.

#### Conclusion

Inadvertent retention of a foreign body in the abdomen often requires another surgery. This increases morbidity and mortality of the patient, cost of treatment and medico-legal problems. Present case is an important pearl that one must be aware of the risk factors that could lead to a gossypiboma and take measures to prevent it. Gossypibomas are uncommon, mostly asymptomatic, and hard to diagnose. Particularly, chronic cases do not show specific clinical and radiological signs for differential diagnosis. It should be included in the differential diagnosis of soft-tissue masses detected in patients with a history of a prior operation.

# OP 09: A very rare case of tubal pregnancy, six years after subtotal hysterectomy

Wasalthilaka C D, Senarathne H M S, Gunawardana G H K K Ward 05, Teaching Hospital, Kandy

# Introduction

Ectopic Pregnancies following hysterectomies are rare. There are probably less than 60 reported cases in the entire world literature. The condition is rarely diagnosed. Delayed diagnosis and treatment are the leading causes of complications in ectopic pregnancy. This rule is equally applicable to hysterectomized patients as well.

# **Case summary**

A 37 year old patient who has undergone subtotal hysterectomy after her 4<sup>th</sup> child birth due to postpartum haemorraghe in 2005 presented with on and off abdominal pain for 3 weeks and per vaginal bleeding for 3 days duration. Her ultrasound scan revealed that right sided adnexal mass with minimal amount of free fluid in pouch of Douglas. Her CA 125 level was slightly elevated. Explorative laparotomy performed and found right sided tubo ovarian mass with organized blood clot. Subsequently it was confirmed histologically as tubal pregnancy.

#### Discussion

Ectopic pregnancy after such a long duration after hysterectomy is very rare. Only seven cases reported after five years duration. This tubal pregnancy could have resulted from a communication between the vagina and the peritoneal cavity through the cervical stump. In this case serum beta HCG was not performed as diagnosis was masked by ultrasound report saying complex ovarian mass and the long duration of presentation after hysterectomy.

### Conclusion

Every woman with intact ovaries, despite previous hysterectomy who presents with abdominal pain should raise suspicion of Ectopic pregnancy irrespective of type and duration of hysterectomy.

# OP 10: A Study on Hysterectomy performed as a treatment of adenomyosis in new unit of Obstetrics and Gynaecology, Teaching Hospital, Peradeniya

<u>De Silva W V V</u>, Wijesinghe R D, Silva G R C, Kajendran J, Ranaraja S K *New unit of Obstetrics and Gynecology, Teaching Hospital Peradeniya* 

# **Objective**

To correlate the clinical diagnosis of adenomyosis with histological confirmation after hysterectomy.

# Design, setting and methods

A retrospective study was conducted on data of hysterectomies done from June 2009 to June 2012 in new Obstetrics and Gynaecology Unit, Teaching Hospital Peradeniya. Pharmacological therapy was offered for three to six months once the diagnosis of adenomyosis was made, clinically and ultrasonographically. Failing pharmacological therapy, hysterectomy was offered as the definitive treatment of adenomyosis. Histology reports of these adenomyotic uteri were assessed.

#### **Results**

Out of 131 patients age range from 32 to 58 years (mean 46.5 and SD 4.76). 96.9% (127) of the patients were multiparous. The dominant symptoms were menorrhagia (85.4%) and dysmenorrhea (52.6%).60.3%(79) had positive histological reports as adenomyosis.62.02%(49) of Adenomyosis uteri had at least one other associated lesion(i.e. fibroids, uterine polyps and pelvic endometriosis). 17.5% (23) had uterine lesions without adenomyosis and 22.13% (29) of uteri had histologically normal myometrium.

#### Conclusion

Majority of clinically diagnosed cases of adenomyosis were histologicaly justified. But some proportions of patients with clinical features are over treated with hysterectomy.

# OP 11: Incidence of pelvic adhesions, observed at laparoscopic sterilization procedure and it's relation with past Caesarean Section

Perera KCVM, Gange VP, BatchaTM, Kandegedara PGPP, Thenuwara AN

# **Background**

Adhesion formation is a well-known complication of abdominal and pelvic surgeries and world literature highlights research regarding adhesion formation in relation to prior caesarean section. We had an opportunity to study pelvic cavities of females volunteering for laparoscopic tubal sterilization in Sri Lankan setting.

# **Objective**

Laparoscopic evaluation of the incidence of pelvic adhesions related to prior Cesarean Section.

# Study design

Retrospective single centered study.

# **Setting**

Reproductive Health Centre, Family Health Bureau.

#### Method

We included a continuous series of 1004gynaecologic laparoscopic tubal sterilization procedures. Data were collected on history of cesarean section. A thorough inspection of the pelvis for adhesions was made at the time of procedure.

#### Results

One hundred and nineteen of 1004 procedures (11.9%) were performed in patients with a history of one cesarean section. Intra-operative adhesions were found in 73 of the 1004 subjects (7.3%) while 39 were found in patients with a cesarean section history (32.8%) and 34 in patients without a surgical history (3.8%).

Thirteen of 73 adhesions cases (17.8%) involved bowel loops while 12 cases (16.4%) were omental and 15% tubal adhesions.

#### Conclusion

This study highlights a statistically significant increase of pelvic adhesions in relation to prior cesarean section. Extensive pre operative knowledge of prior cesarean delivery is essential to evaluate the risk of adhesion formation.

# OP 12: Does prophylactic antibiotics prevent post-operative infections in laparoscopic surgery? A randomized controlled trial

<u>JayarathnaY R J</u>, Ranaraja S, NishadA A N *Teaching Hospital, Peradeniya* 

# Introduction

Laparoscopy is the most commonly performed diagnostic and therapeutic operative procedure in Gynecological practice. Available evidence regarding the role of prophylactic antibiotics in this invasive procedure is limited and mostly comprises of data from developed countries. It is important to assess the role of prophylactic antibiotics in Sri Lankan population in whom the vaginal flora and rates of pelvic inflammatory disease (PID) is different from population in developed countries.

# **Objective**

To investigate the role of prophylactic antibiotics in prevention of early post-operative infections following elective laparoscopic surgery.

# Methodology

Subjects were allocated in to two groups, A and B. Group A received prophylactic antibiotic regimen (Oral Azithromycin one gram daily and vaginal betadine pessary twice daily for three days). Group B subjects did not receive any prophylactic antibiotics. Primary outcome measures were post-operative fever up to day two; surgical site infection, PID and Urinary Tract Infection (UTI). All the subjects were reviewed in the clinic after two weeks' time to screen for the infections.

#### Results

There were 175 laparoscopic surgeries and 98 (56%) were in group A. The mean age was 32.9 (SD 5.8) years. The rate of post-operative fever in group A and B were respectively 7(7.1%) and 7(9.1%) (P = 0.637). The rate of surgical site infection in group A and B respectively were 0(0%) and 1(1.3%) (P = 0.258). The rates of presence of fever or infection were respectively 7(7.1%) and 8(10.3%), (P = 0.446). None of the participants got pelvic or urinary infections. There were no statistically significant differences in presence of fever, infection of either one in the two groups.

# Conclusion

Prophylacticantibiotics do not play a role in prevention of early post-operative infections following elective laparoscopic surgery in Gyneacological practice.

# OP 13: Efficacy of two different treatment regimens of vaginal Nitric Oxide donor (Iso-sorbideMononitrate) used for pre – induction cervical ripening

Ziard M H, Goonewardene I M R University Obstetric Unit, Teaching Hospital Mahamodara, Galle

# **Objectives**

Compare effectiveness of vaginal Iso-sorbideMononitrate sustained release form (ISMN-SR) 60mg for two days versus three days and assess feasibility and effectiveness of above as an outpatient procedure.

#### Method

A randomized controlled trial conducted at a tertiary care hospital. Uncomplicated singleton pregnancies at 40weeks + three days were allocated by stratified block randomization (primip/multip) to receive either vaginal ISMN-SR 60mg on 40weeks + 3 and 5 days as inpatient (Group A,n=74) or vaginal ISMN-SR 60mg on 40weeks + 3, 4 and 5 days as inpatient (Group B,n=67), or outpatient (Group C, n = 25).

#### Results

There was no significant differencein establishing spontaneous labour by 40 weeks and six days in the three groups. In comparison to Group A, Group B showed a greater change in mean modified Bishop's score (3.0, 95% CI 2.4 – 3.3 vs. 1.6, 95% CI 1.2 – 1.9, p<0.005) resulting in a higher proportion of women (55.6% vs. 25.7%, p<0.05) becoming favorable for induction. There was no difference in mean induction to delivery intervals and caesarean section rates in the three groups. In Group C of 25 women 15 (60%) self-administered ISMN – SR while twenty (80%) were willing to try it again and would recommend it to another. Also occurrence and intensity of nausea and vomiting was significantly less (p<0.005).

### Conclusion

The three day inpatient regimen of ISMN-SR 60 mg was better for pre-induction cervical ripening. Although the effectiveness of the outpatient regimen could not be properly estimated, the side effects seem to be better tolerated with outpatient therapy.

# OP 14: Foley catheter vs vaginal Prostaglandin E2 in the induction of labor at term in a Tertiary Care Hospital

<u>Samarasinghe S H M E C</u>, WijesingheR D, SilvaG R C, Kajendran J, Ranaraja S K *New Obstetrics & Gynaecology Unit, Teaching Hospital, Peradeniya* 

# **Objective**

To retrospectively analyze the outcomes of Foley catheter and Prostaglandin E2 gel in induction of labor at term.

# **Design, Setting and Methods**

Data was collected from the hospital records of the women who underwent induction of labor by means of Foley catheter or Prostaglandin E2, in new Obstetric Unit, Teaching Hospital Peradeniya from January 2012 to July 2012. All women had full term pregnancy and an unripe cervix (Bishop score< 6). Two methods were analyzed with regard to labor outcomes.

#### **Results**

42(31%)and 91(68%) women underwent induction of labor with Foley catheter and vaginal prostaglandin E2 gel respectively. Two methods were not significantly different in time taken to initiate labor(p=0.19). Interval between initiations of labor to delivery was significantly shorter in Prostaglandin group compared to Foley (p=0.04). Rate of caesarean sections in two groups were not statistically different (p=0.25), except in past dates where significantly higher number of women induced with Prostaglandin, ended up in caesarean sections compared to Foley (p=0.01). 38% of all inductions due to past dates developed fetal distress.70% of fetal distress was following induction with Prostaglandin. Meconium stained liquor was observed in 5 (62%) women with Prostaglandin and 3(38%) women with Foley catheter induction. Allneonates had APGAR of 10 at 5 minutes.

# Conclusion

Vaginal administration of Prostaglandin E2 gel could increase the risk of fetal distress and subsequent caesarean sections in women with past dates.

# OP 15: Progress of first stage of labor in multiparous women: An observational study

Silva G R C, Nishad A A N, Wijesinghe P S

Professorial Obstetrics and Gynaecology Unit North Colombo Teaching Hospital, Ragama

# **Objective**

To describe progress of first stage of labor for multiparous women.

#### Method

Study was done among uncomplicated multigravidae at term with spontaneous labor admitted to labor ward of university obstetric unit over a period of six months. Vaginal examination was performed two hourly, either to the end of the 1<sup>st</sup> stage of labor or to the point of transfer for intervention and dilatation was recorded on the 'National partogram'. Mean rate of cervical dilatation and its relationship to mother's height, parity, initial dilatation of the cervix, station of the fetal head at first vaginal examination and birth weight were studied.

#### Results

Of the 208 multiparous women the mean age was 30 years and mean height was 154.9 cm. At the first vaginal examination 166(79.8%) had intact membranes and in 129(62.0%) the cervical dilatation was equal or less than five centimeters. Spontaneous vaginal delivery was achieved by 194 (94.7%) while six (2.9%) underwent instrumental delivery and five (2.4%) were delivered by caesarean section. The mean rate of cervical dilatation was 2.83 cm/hour and the  $5^{th}$ ,  $10^{th}$ , 50th, 95th centiles were 0.92, 1.00,2.49, 6.00 cm/hour respectively. There was a weak negative correlation between rate of dilatation and birth weight(r = 0.112).

#### Conclusion

Multiparous labor is relatively faster. This must be taken in to account in the diagnosis and management of abnormal labor when 'National partogram' is used to monitor the progress of multiparous labor.

# OP 16: Dianoprostoneas method of augmentation of labor in pre labor rupture of membranes in a Tertiary Care Hospital

<u>Samarasinghe S H M E C</u>, Wijesinghe R D, SilvaG R C, Kajendran J, Ranaraja S K *New Obstetrics & Gynaecology Unit, Teaching Hospital, Peradeniya* 

# **Objective**

To retrospectively analyze the factors affecting the outcome of Dianoprostone vaginal gel in augmentation of labor of women with pre labor rupture of membranes at term.

# **Design, Setting and Methods**

The data was collected from the hospital records of women who underwent induction of labor with Dianoprostone vaginal gel due to pre labor rupture of membranes at term, in New Obstetrics and Gynaecological Unit, Teaching Hospital Peradeniya from January 2012 to July 2012.

#### **Results**

Data from 41 women was analyzed. 26 (63%) delivered vaginally while 15 (37%) underwent caesarean sections due to fetal distress and lack of progression. No relationships were observed between the parity, period of amenorrhoea and dilatation of the cervix at time of augmentation with regard time taken for delivery (p=0.63). Similarly, success of vaginal delivery with Dianoprostone induction was not significantly associated with above variables (p=0.42). All neonates of fetal distress had APGAR of 10 at 5 minutes.

#### Conclusion

Success of vaginal delivery and time taken to deliver by vaginal route are not affected by parity, POA and initial cervical dilatation of women with pre labor rupture of membranes at term who underwent augmentation of labor with Dianoprostone vaginal gel.

# OP 17: Comparison of Episiotomy rates in Anuradhapura Teaching Hospital (ATH) and a tertiary care unit in Colombo district

<u>Fernando T R N<sup>1</sup></u>, Perera Y A  $G^2$ 

# **Objectives**

To find out the episiotomy rates at ATH and a tertiary care unit in Colombo. To compare the episiotomy rates in the 2 units. To find out practice of analgesia prior to performing the episiotomy.

#### Method

Data collected from Bed Head Tickets of normal vaginal deliveries (NVD) from 21st April to 20th May 2011 at ATH and 20th March – 20th May 2012 at Labour room C of Castle street Hospital for women (CSHW).

#### **Results**

Total number of NVDs at ATH was 799. Overall rate of episiotomy at ATH was 59%.

There were 406 primiparous women. The rate of episiotomy for primi at ATH was 85%.

There were 393 multiparous women with an episiotomy rate of 29.9% at ATH. The total number of NVDs at CSHW was 260. Overall rate of episiotomy at CSHW was 94.2%. There were 125 primis and an episiotomy rate of 94.4%. There were 135 multis with an episiotomy rate of 94%.

None of the women had analgesia for episiotomy at both units. Two women had epidural analgesia for labour at CSHW.

#### Conclusion

Episiotomy rate at CSHW is higher than ATH. The rate of episiotomy among multis is lower than primis at ATH but at CSHW there was no significant difference.

Episiotomy rates of the world range from as low as 9.7% in Sweden to 100% in Taiwan. WHO recommend an Episiotomy rate of 10%. Should we improve in our practice of episiotomy and analgesia?

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<sup>&</sup>lt;sup>2</sup>Castle street Hospital for Women

# OP 18: An audit on third and fourth degree perineal tear in Nobles Hospital, Isle of Man, UK

Sheyamalan S<sup>1</sup>, Ghosh T<sup>2</sup>

#### Aim

To find out the incidence of third and fourth degree perineal tears in our department, proportion of cases repaired in theatre, types of analgesia used, suture materials and methods of repair, grade of operator, and the proportion seen for follow-up post-natally. We also looked into find out any identifiable causes/risk factors and if possible to change of our practice.

# **Standards**

RCOG green top guideline no 29 (2007) and departmental guideline. Third and fourth degree perineal tears of 1% was accepted as standard (RCOG)

# Methodology

Patients were identified over the period 2006-2010. A total of 91 case notes were identified from computerized database, of which 88 cases were used for statistical purpose.

#### **Results**

Incidence of these tears were progressively increasing over a period of 5 years (from 1.7% to 2.3%) except a lowest figure (1.2%) was noted in 2008. Majority (64%) were in the age group of 20-30. Almost half of the cases (51%) were having normal BMI (20-25) and only 9% were having their BMI >30. Nearly three quarter(78%) of the cases were primiparous women. Only a quarter of cases were induced for labour. Just 4.5% of cases had their first stage of labour prolonged beyond 14 hours while in 42% of cases active second stage was more than one hour. Epidural anaesthesia was used in just 5% of cases. Syntocinon was used for augmentation in 45%. In one in eight cases the baby was lying in occipito-posterior position. An instrumental delivery was performed in 36% and forceps delivery was noted in a quarter of cases, which was progressively increasing over this 5 years. Majority were third degree tears among which 3a and 3b tears occurred almost equally (40%). Fourth degree tear only contributed in 4.5%. Third degree tear was un-categorised in 3 cases each in the years 2006 and 2007. In almost one quarter (24%) of cases the baby was weighing > 4kg. The consultant assessed the injury in 34% of cases. Only four in five cases had their repair done in the theatre. Seventeen cases were repaired in labour room. The consultants did the repair in 35%

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while SHOs did on their own in 12.5%. Spinal anaesthesia used for repair in majority (72%) while local anaesthesia used in 13.6%. Majority (77%) of repairs performed with vicryl and PDS was used in the rest. Half of the cases sutures by using end-to-end method and 12% by overlapping method. Two in five cases had no documentation about the method of repair. Documentation was up to the standard in only 44%. Post natal antibiotics and laxatives were given in almost all the cases while pelvic floor physiotherapy was given in only 37.5% of cases. Three quarter of mothers were not seen in 6weeks postnatal follow up. Four percent of mothers had late urinary/anal symptoms.

### **Discussion**

Three cases were wrongly labeled as third degree tear in computer data base. Incidents of these tears are growing up. Majority delivered spontaneously. Nulliparity, normal BMI, normal age group, normal birth weight of babies are identified. Epidural is not a risk factor. Normal first and second stage in labour and most had normal vaginal delivery. Majority were third degree tear. Although most cases assessed and repaired by consultants, twenty percent were repaired in the room and some were repaired under local. Sixty five percent did not have physiotherapy and only one quarter followed up postnatally. Complication was noted in 17% of the followed up cases.

#### Recommendation

Communication among staffs should be clear. Hand-off rather than hands-on technique for vaginal delivery should be encouraged and promoted. All these tears should be sutured in theatre under proper anaesthesia. All women should receive physiotherapy before discharge. All women should be seen postnatally. Postnatal leaflet and counselling should be given to all women.

# OP 19: Malignant struma ovarii - A case of papillary thyroid carcinoma in ovary

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# Introduction

Malignancy in struma ovarii is a rare form of ovarian germ cell tumour. Struma ovarii is diagnosed when thyroid tissue is the predominant element (>50%) histologically diagnosed in the tumour. Because of its rarity, the diagnosis and management of the tumor have not been clearly defined in the literature.

Here a rare case of struma ovarii with papillary thyroid carcinoma is presented, management and treatment options are discussed.

# Case report

31-year-old sub fertile female was admitted having a history of abdominal distension for one-month duration. An abdominal mass was palpated which was arising from pelvis. There were no symptoms or signs of hyperthyroidism.

Sonography revealed an enlarged ecogenic left ovary (5x5.6x3.7 cm) and a cystic lesion at the right adenexiure (1x6.5x8.6 cm). Carcinogenic antigen (CA125) was raised,  $469 \square \text{KU/l}$ .

At the staging laparotomy, ascetic fluid was send for cytological analysis and conservative surgery was performed with the intention of preserving the reproductive function by a right oopherectomy, left ovarian cystectomy, para aortic lymphadenectomy and omentalbiopsy.

Histology of the biopsy revealed with right ovarian tumor predominantly thyroid follicles with solid and follicular structures.

Immunochemistry assay revealed that the cells are negative for CEA and chromogranin.

Histology confirmed a right sided malignant strumaovarii (Follicular variant of papillary carcinoma of thyroid) with a intact capsule and left ovarian mature cystic teratoma.

Para aortic lymph nodes,omentum and ascetic fluid were free from tumor cells.(stage 1A)

# Discussion

Struma ovarii comprises 2.7% of all dermoid tumors of the ovary, and very rarely presents in a malignant form, occurring in 0.3% to 5% of all strumaovarii tumors.

Struma ovarii usually presents after age of 40 years and the peak age of incidence is in the fifth decade.

There is no literature available at presence giving a guideline in management of this rare condition.

There for this case was discussed at the multidisciplinary meeting with consultant phathologists, oncologists and gynaecologists.

The following options were discussed at this meeting.

(a) Immediate prophylactic total thyroidectomy, treatment with 131 Iodine and follow up with serial thyroglobulin

- (b) If alfafeto protein and beta HCG high treat the patient with chemotherapy BEP (bleomycin, etoposide, platinum).
- (c) As the tumour markers are normal wait and watch policy by close observation with imaging studies.

Patient did not given the consent for the thyroidectomy. As the tumour markers were within the normal range option C was selected in the management of this patient.

#### Conclusion

As there are no definitive guidelines available entire clinical scenarios has to be taken in to account in the management of this rare tumor.

# OP 20: Awareness about cervical cancer and prevention among women in Anuradhapura district

Fernando T R N<sup>1</sup>, Wijayanayake A N<sup>2</sup>

# **Objective**

To assess the awareness of cervical cancer, its risk factors and prevention among women, between 20 to 60 years, in Anurdhapura District (AD)

#### Method

A cross-sectional, questionnaire based survey was conducted during October 2011 - January 2012. Convenience sampling was applied. Oral consent was taken.

# **Results**

Total number of women participated 700. Analysis was done on 657 completed data sheets. Majority (89.6%) of the women were between 20-49 years. Majority (>88%) had secondary or higher education. Correlation between education level and awareness about cancer was highly positive 0.759. Ninety-seven percent of the sample has heard about cervical cancer, only 90% knew that it could be prevented but only 8% knew the correct risk factors. 85.7% of the sample was unaware about the risk factors for cervical cancer. More than 50% were aware about the Well women clinics (WWC). Majority of women had mentioned Television as their main source of information.

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### Conclusion

Although in this study sample majority of the women were of high literacy rate, their awareness about cervical cancer risk factors and its prevention was poor. Cervical cancer is the 2<sup>nd</sup> leading cause of cancer deaths among women in Sri Lanka. At the end of year 2007, 611 WWCs were functioning in the country. There were 21 WWC in AD. However the target age group coverage had been only 18%. There should be greater effort to improve the awareness among women of reproductive age, so that they will seek preventive care for cervical cancer.

# OP 21: Fertility – sparing surgery in early epithelial ovarian cancer: A viable option? A case report and a literature review

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#### Introduction

Epithelial-stromal tumor is the most common type of ovarian cancer. It includes serous, endometrioid, and mucinous, clear cell tumors and other types.

Womenof childbearing age with ovarianmalignancy with unilateral ovarian involvement may be candidates for fertility-sparing surgery with preservation of a contralateral normal ovary and uterus.

### Case report

A 28 years old unmarriedwoman was referred to our tertiary center with a history of irregular bleeding for 1 year duration. On physical examination, abdominal mass was palpated which was arising from pelvis

Ultrasound examination revealed the presence of a 8.3 x 8.6 x 6.8cm large cystic mass with thick septum in left adenexae. Right ovary appeared normal.

Laboratory analysis showed raised serum CA-125(63.2u/ml). Alfa feto protein, beta HCG and LDH levels were within the normal range.

At the staging laparotomy left salpingo - ooperectomy was done withpara-aortic lymphadenectomy and omentectomy after having frozen sections intra-operatively. The uterus and left ovary were preserved because the patient wished to remain her fertility.

Histology of the biopsy revealed a left sided well differentiated endometroid adenocarcinoma with cystic and solid areas with no vascular tumour emboli. Omentum and lymph nodes were free from tumor cells but there was a capsular penetration.

The patient was classified as stage IC according to FIGO.As 10 % endometroid ovarian malignancies associated with endometrial hyperplasia or carcinoma endometrial sampling was done at this patient and it was negative.

According to the oncological opinion patient was treated with chemotherapy(IV Carboplatin and Taxol)

# **Discussion**

According to the literature about epithelial ovarian tumors meanrelapse rates are estimated to be 8% even in patient's which has IC stage disease.

Literature data concerning the rate of women with successful conception

after FSS accounts approximately 30%. Only the minority of patients required assisted reproductive techniques for a successful conception and pregnancy.

#### Conclusion

Fertility-sparing surgery can be considered in young patientswho desire to preserve their fertility with stages IA–C and grades I–II Epithelial Ovarian malignancy with favorable histological types.

# OP 22: Re-audit on surgical treatment of endometrial cancer

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# Aim/objectives

To compare our performance in the surgical management of endometrial cancer for 2008 against national standards and published literature. To re-audit operative morbidity, estimated blood loss, post-operative stay, and conversion to laparotomy against previous audit and national standards.

### **Standards**

NICE guideline on laparoscopic hysterectomy(IPG239). Hundred percent documentation of standard operative notes and postoperative care. Comparison with the previous audit on the same topic done by Mr. George and Mr. Kirwan in 2007.

# Methodology

Retrospective audit of all cases of endometrial cancer who had surgical treatment in Liverpool womens hospital during one year (April 2010 to March 2011). Total number of cases are 144.

#### **Results**

Mean age of patients in years was 66.7 (for total abdominal hysterectomy (TAH) was 67, for vaginal hysterectomy (VH) was 70.5 and laparoscopic assisted vaginal hysterectomy (LAVH) was 66.1). The mean BMI was 32.9 (for TAH was 32.6, for VH was 44.7 and for LAVH was 32.4). Most of the TAH (67) was done by consultants while 13 were done by Sub-specialty registrars (SpR). All the VH (4) were done by consultants. Most LAVH (46) were done by consultants while SpR did seven. The mean operating time was 95.6 minutes for TAH,58.8 for VH and 86.2 for LAVH. The mean post-operative stay for TAH was 5.1 days, for VH 2.3 days and for LAVH 2.4 days. The operated estimated blood loss was 250ml for VH, 359ml for TAH and 368ml for LAVH. There were two visceral injuries in LAVH group and two cases were converted into laparotomy in the same group (one with blood loss of one litre and the other with blood loss of three litres with bowel injury). There were no re-admissions in this group. In the TAH group 8 patients had wound infection, 2 developed abscesses, one vault haematoma, one bowel obstruction and 5 readmissions. There was poor compliance in documentation for estimated blood loss (69% for LAVH, 66% for TAH, and 50% for VH) and post-operative Hb estimation (between 0 to 29%).

# **Discussion**

Less number of cases were noted in the current audit (144) compared to the previous audit (154). The uptake of LAVH has increased since last audit (from 37 to 53). The operating time is less in the current audit than the previous one (90 min vs 107 min for transverse incision and 101min vs 130 min for vertical incision). In the previous audit the conversion to laparotomy was 10% which was gone down in this series to 3.7%.

# Recommendations and action plan

Estimated blood loss documentation to be improved. Only a loss more than 1000mls has a designated documentation slot. Post-operative Hb documentation to be improved. Both documentation of haemacue and estimated blood loss have to be incorporated into the enhanced recovery pathway notes within 6 months time. Increase the number of LAVH/total laparoscopic hysterectomy (TLH) as more experience is gained. To reduce the hospital stay for LAVH patients. To conduct a retrospective audit on the same topic in 18 months.

OP 23: Cervical cancer screening-An effective and practical strategy

for low resource settings

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**Objective** 

Effective screening has led to large decline in incidence and mortality of the cervical

cancer in developed countries. However, it is still an important health issue and is the

second leading cancer of the women worldwide. Most of the deaths [80%] are seen in

the developing countries.

Evaluate the place of visual inspection of acetic acid[VIA],HPV DNA

screening, cervical cytology and colposcopy in developing an effective strategy of

cervical cancer screening for the low resourceful settings.

Methods

Literature search using Medline and Embase to review available evidence.

Results

Cervical cancer remains largely uncontrolled due to ineffective or no screening in the

developing world.

Cytology screening has been the successful strategy of cervical cancer screening in the

developed world [sensitivity75%.specificity 99%] . Different methods have been

adopted in the developing world with varying degrees of success.

Cytology screening remains the standard for application in middle-income countries.

However, VIA holds substantial promise, and providing this is confirmed in the

ongoing studies, and the difficulties associated with its lower specificity[85%]to

overcome, it may replace cytology in lower income countries.

Tests for HPV DNA have shown efficacy [99% PPV] in the triage of equivocal

diagnosis and, if costs and technology are made affordable, could eventually become the

gold standard.

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Financial implications, infrastructure development and training the needed manpower are the main challenges to overcome when organizing a screening method for cervical cancer.

#### Conclusion

VIA or HPV DNA testing has the potential to fulfil the necessary population coverage in cervical cancer screening, to achieve a significant reduction in cancer incidences, in low resourceful countries. These methods can overcome the burdens associated with cytology screening such as inadequacy of trained technicians and laboratory facilities.

# OP 24: Knowledge and attitude on cervical cancer screening and Human Papilloma Virus vaccination among women in Anuradhapura

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# **Objectives**

Assess awareness and knowledge on PAP smear and prevalence of risk factors on cervical cancer in addition to assess knowledge and attitude regarding Human Papilloma Virus (HPV) vaccination.

### **Design and Methodology**

Descriptive cross- sectional study was conducted among randomly selected women attending to Health education seminar in Anuradhapura district. Objectively designed self administered questionnaire was used for data collection.

# **Results**

Majority of the women (77 %) were among 18- 35 yrs age group and 56% were residents of urban and semi urban areas. 20 % of the women had more than 1 Risk factor fordevelopment of cervical cancer and 6 %( n= 6) of them had a positive family history.19% women were sexually active and had their first pregnancy below 18 years of age.

However 59% were not aware about cervical cancer and among the women who were aware about cervical cancer 86% were not aware about the HPV vaccination. Although 47 % of the women thought this is a common cancer, 93 % had not undergone PAP

smears. 46 % of them knew PAP smear is based on cytology and 54% of them thought it was a blood test or a scan. Majority (80 %) of the women did not know the etiology. 79 % of the women were willing to receive HPV vaccination.

#### Conclusion

Majority of the women were not aware of cervical cancer and HPV vaccination even though 20% of them had risk factors for development of cervical cancer.

# OP 25: Anaesthesia during assisted reproductive technique – What is ideal?

Sahu S

Assistant Professor, Department of Anaesthesiology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India

#### Introduction

As the incidence of infertility is increasing, In vitro fertilization is need of hour. Anaesthesia during assisted reproductive technique is generally required during oocyte retrieval, which forms one of the fundamental steps during the entire procedure. However irrespective of the technique the key point of anaesthesia for in vitro fertilization it is important to provide the anaesthetic exposure for least duration so as to avoid its detrimental effects on the embryo cleavage and fertilization.

#### **Material & Methods**

We have to consider need of anesthesia for relieving pain, anxiety, management of coexisting illness and confounding of its treatment with anesthesia. The out of three desired methods: Monitored sedation with/without local anaesthesia, General Anaesthesia, Regional Anaesthesia which is best and its associated complications will be discussed.

#### Result

Till date variety of techniques like conscious sedation, general anaesthesia and regional anaesthesia has been tried with none being superior to the other. The technique employed in aspiration of the oocyte and laboratory manipulations have all been modified and updated. Which is better, sedation or general anaesthesia is more of a personal preference.

### **Discussion**

Anaethesia technique, which is important to the comfort level both for the patient and the gynecologists to maximize the harvesting of oocytes plays an important role in the successful outcome. With the coming up of large prospective trials documenting safe use of drugs like propofol, opioid, the newer anaesthetics have lost their inhibitions regarding the use of these agents, thereby widening the scope of more rationale anaesthesia in IVF and extending our services to this developing sub-specialty. The key to anaesthesia in IVF is to aim for pharmacological exposure of shortest duration with minimal penetration to follicular fluid.

# OP 26: Shorter treatment duration observed with low dose step-down rFSH regimen in controlled ovarian stimulation compared to low dose step-up regimen

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# **Objectives**

To compare the treatment duration and total drug usage between low dose step-down and low dose step-up recombinant Follicular Stimulation Hormone (rFSH) regimens in Controlled Ovarian Stimulation(COS) to gain monofollicular development.

# **Design, Setting & Methods**

A randomized controlled trial was carried out at the fertility unit, university of Kelaniya, among women with WHO group II anovulation. Fifty subjects were randomly allocated after informed written consent to two treatment groups and received one of two regimens; Step-down regimen and Step-up regimen, of rFSH administration. Detection of a mature follicle was taken as the study end point.

#### **Results**

The two groups were comparable with regard to age, BMI, duration and type of infertility, prevalence of menstrual cycle irregularities, ovulatory dysfunction and early cycle FSH levels. Treatment was abandoned in two subjects for Ovarian Hyper Stimulation Syndrome in the step-down treatment group. Ovulation was achieved in all other subjects. The mean (SD) duration of treatment was shorter with step-down regimen compared to the step-up regimen [11.4(2.3) days vs. 15.4(5.7) days; p=0.004]. Mean (SD) total amount of drug used did not show a significant difference between the two groups [1428(628) IU vs. 1228 (887) IU; p= 0.378]. No significant difference was

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observed between the groups in the number of pre-ovulatory follicles observed or the endometrial thickness.

#### Conclusions

The use of a low-dose step-down rFSH regimen for controlled ovarian stimulation resulted in a shorter duration of treatment compared to the conventional step-up regimen. The total drug used and the complications did not show a significant difference between the two treatment regimens.

# Acknowledgement

This study was funded through a research grant from the National research council, Sri Lanka (Grant no. 06-30)

# OP 27: Bacteriospermia and quality of semen in males of subfertile couples

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# **Objective**

To determine the presence of non-specific bacteria in seminal plasma and to describe its relationship with semen quality in males of sub fertile couples.

# **Design**, setting and methods

A descriptive cross sectional study was carried out. All consented asymptomatic males were recruited from the sub fertility clinic and seminal fluid analysis was carried out at the sub fertility laboratory of Colombo North Teaching Hospital. Semen samples of 450 males were cultured in blood, chocolate and McConkey agar at microbiology laboratory of the Faculty of Medicine, University of Kelaniya. The seminal fluid parameters of culture positive and negative males were compared using independent sample t-test.

#### **Results**

Mean age and the duration of sub-fertility were 33years (Range 22-48 years) and 3.4 years (Range 01-12 years) respectively. A bacterial growth was found in 288(64%) samples. Organisms found were Streptococcus spp, Staphylococcus spp, diptheroids, coliforms, and Acinetobacter spp. Mean volume of the culture positive samples was 2.55 ml(SD-1.29) and in culture negative samples it was 2.85 ml(SD-1.38). Presence of bacteria in semen significantly reduces the volume of the ejaculate (P= 0.022). Total motile sperm count in an ejaculate (TSE) depends on the volume, percentage

progressive motility and sperm concentration of the ejaculate. In culture positive samples mean TSE was  $71.34 \times 10^6$  sperms (SD-68.99 x  $10^6$  sperms) and in culture negative samples it was  $85.45 \times 10^6$  sperms (SD-74.48x $10^6$  sperms). TSE was significantly reduced, when bacteria were present in the ejaculate (P=.044).

#### **Conclusions**

Bacteriospermia is a determinant of the volume and TSE of the ejaculate. This phenomenon may affect the rates of spontaneous pregnancy as well as the assisted reproductive techniques.

# Acknowledgement

The study was supported by the National Research Council of Sri Lanka, Grant no: 09-69.

# OP 28: Assessment of changes in sperm parameters during preparation for intra uterine insemination (IUI)

Solanga S A D T M, Seneviratne H R

# **Objective**

To compare the changes of sperm motility and morphology pre and post preparation for Intra Uterine Insemination (IUI)

# **Design and Setting**

Prospective observational study conducted in a tertiary Reproductive Health Centre in the private sector.

#### Methods

The sperm parameters of male partners in sub-fertile couples (n = 74), treated with IUI were compared pre and post processing, in terms of Morphology, Normal Motile Concentration (NMC) and Total Normal Motile Count (TNMC). The techniques used for the processing of sperm were also compared.

# Results

Significant increase of Normal morphology and NMC was observed in the post processed samples (P<0.001 each). A significant improvement of TNMC in patients diagnosed with Oligo-astheno-teratozoospermia by WHO-1999criteria(n=17) was observed(P=0.03) while, it was absent in the group (n = 4) defined by WHO (2010) criteria (P = 0.132). Overall (n = 74) TNMC was significantly reduced in the post

sample (P<0.001). Percentage improvement of NMC, and morphology was significantly higher in the samples processed with density gradient (n = 34) when compared with swim-up (P = 0.004 and P = 0.019 respectively). Both Head and Tail abnormalities of the sperms (n = 74) were also significantly reduced in the processed sample.(P<0.001 each). But in Density gradient (n = 34) the head abnormal percentage remained unchanged (P = 0.079).

### Conclusion

Sperm processing improves poorer samples compared to good samples. Both techniques are effective in but the percentage improvement with density gradient is better. A randomized blinded trial is recommended to compare the two techniques in detail.

# OP 29: Age specific basal FSH concentrations and the outcome of ovarian stimulation for In-Vitro Fertilisation (IVF)

Kaluarachchi A, <u>Gunasekara H S</u>, Solanga S A D T M, BatchaT M, Wijeratne S, Senanayake RC Seneviratne H R

# **Objective**

To determine the association between age specific basal FSH(bFSH) levels and the outcome of ovarian stimulation in IVF cycles

# **Design and Setting**

Retrospective cohort study conducted in a Reproductive health centre in the private sector

#### Methods

Patients aged 26-43(n=418) who underwent ovarian stimulation with or without pituitary down regulation were included. Patients were grouped according to age (26-31, 32-37, and 38-43) and within each age range; they were grouped into bFSH quartiles. Primary outcome measures included number of follicles aspirated and the number of oocytes retrieved. Secondary outcome measures included number of embryos suitable to be transferred and frozen, and pregnancy rates.

### **Results**

Women with low bFSH levels in two age categories (32-37,38-43) had significantly higher numbers of follicles aspirated (P<0.001in both groups), oocytes retrieved (P<0.001 and P=0.001 respectively) and embryos suitable for replacement or freezing (P=0.002 and P=0.001 respectively), than those of the same age group with high bFSH

levels. No such significant difference was observed in the 26-31 age categories. There was no significant difference with pregnancy rates in all three age categories.

#### Conclusion

The study suggests that age specific serum bFSH levels can serve as a good predictor in the numbers of, follicles that can be aspirated, oocytes retrieved and embryos suitable for replacement or freezing. These findings are useful for counseling couples prior to IVF.

# OP 30: The analgesic efficacy of Transversus Abdominis Plane Block after total abdominal hysterectomy: A randomized controlled trial

<u>Wijewardana M G D G,</u> Pathiraja R, Jayawadana M *Professorial Obstetrics & Gynaecology Unit, Colombo South Teaching Hospital* **Objective** 

To assess the effectiveness of surgical TAP block in providing post operative analgesia in women undergoing total abdominal hysterectomy through supra pubic transverse incision under general anesthesia.

# **Design**

A randomized controlled study.

# **Setting**

Professorial Unit, Colombo South Teaching Hospital.

# **Population**

Women who underwent total abdominal hysterectomy for benign lesions

# Methodology

A double blind randomized control trial was conducted involving forty women who were undergoing total abdominal hysterectomy through supra pubic transverse incision. Women were randomized into two arms. Women in the intervention arm received TAP block. TAP block was given, after entering to the peritoneal cavity using 18G blunted needle. 20ml of 0.25% bupivacaine was injected in to neurovascular plane. Both arms received standard analgesia, paracetamol, diclofenac sodium suppositories at specific intervals and intramuscular Pethidine if needed. The pain was assessed by visual analogue pain score at specific time intervals.

# Main outcome measure

Pain reduction

### Results

Compared to control, women who received TAP block, there was a statistically significant reduction in pain at 30 minutes (pain score  $4.5\pm1.3$  vs.  $5.4\pm1.0$ , p=0.02), at 1h (4.4±1.0 vs.  $5.2\pm0.7$ , p=0.01), at 2h (4.0±0.9 vs.  $4.8\pm0.7$ , p=0.01), at 3h (3.6±0.8 vs.  $4.3\pm0.7$ , p=0.01), at 6hrs (2.8±0.9 vs.  $3.0\pm0.7$ , p=0.001), at 12hrs (2.1±1.0 vs.  $3.0\pm0.9$ , p=0.01). At 24hrs, there was no significant difference in pain reduction. (1.4±0.5 vs.  $1.8\pm0.7$ , p=0.11).

### Conclusion

The TAP block significantly reduced pain during the period following total abdominal hysterectomy with no incidence of nausea and vomiting. The block is easy to perform and provides reliable and effective analysis

# OP 31: Suicide is the number one cause of death among pregnant women in Anuradhapura District (2007-2009)

# Fernando T R N

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# **Objective**

This study was designed to find out the escaped deaths of pregnant mothers in Anuradhapura district.

### Method

Data collected from maternal death review reports from the RDHS office in Anurdhapura district during May –July 2011.

# **Results**

Total number of maternal deaths in years 2007-2009 was 40.

Suicides take the highest number among pregnancy related deaths (9/40). The time of suicide had been before the 28 weeks of gestation in 66% of these women. Seven out of 9 suicides were among primiparaous women. Only 3 of them were unmarried. Six of these women had committed suicide by ingesting poison. Age ranged from 19-35years.

Second commonest cause of death was Post Partum Haemorrhage with 6 deaths. Heart disease complicating pregnancy was the 3rd with 5 deaths. Only 2 deaths were due to hypertensive disorders and only one death due to septic abortion.

Family Health bureau statistics in 2007 and 2008 total number of maternal deaths 281 and 56 suicide deaths related to pregnancy in Sri Lanka (which were unaccounted for MMR). Suicide is the number one cause of pregnancy related deaths in Sri Lanka.

#### Conclusion

Suicides in pregnancy are the escaped maternal deaths in Anuradhapura District.

According to the WHO definition of maternal deaths, suicides are categorized as "accidental or incidental cause". Therefore suicides are not included in to MMR. However Sri Lanka has the highest suicide rate in Asia. There is a need to give more attention to prevent suicides among pregnant mothers in Sri Lanka.

# OP 32: Perimortem Caesarean section (PMCS) - Fact or fiction?

Ellepola H<sup>1,2</sup>, Seneviratna S<sup>1,2</sup>, Mano H <sup>1,2</sup>

# Introduction

Cardiopulmonary arrest during pregnancy presents a unique clinical scenario involving two patients: the mother and the fetus. Management of these patients demands a rapid multidisciplinary approach. Basic and advanced cardiac life support algorithms should be implemented; however, the physiological and anatomical changes of pregnancy may require a perimotem caesarean (PMCS) delivery. Randomized trials of approaches to management of pregnant women with cardiopulmonary arrest are lacking.

# **Objective**

Validate the technique of this rare Obstetrics procedure

# Case 1- Australia

A 36 year old uncomplicated mulipara was in active labour. Subsequently; experienced a cardiopulmonary arrest secondary to amniotic fluid embolism (AFE). Code blue was called and cardiopulmonary resuscitation (CPR) commenced. To facilitate ongoing CPR perimortem caesarean section was performed in the birthing suit an aid of a scalpel blade.

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### Case 2- Sri Lanka

A 24 years old uncomplicated primi in labour with fully dilated had a cardiac arrest in the birthing suite. Within four minutes of unsuccessful resuscitation a PMCS was performed

# **Findings**

Successful PMCS was performed in a suboptimal location with scalpel blade

# **Technique**

Transverse skin incision performed with the scalpel blade and blunt dissection of the subcutaneous tissue. The fascial incision extended bluntly by inserting the fingers of each hand under the fascia and then pulling in a cephalad-caudad direction. Rectus muscle layer and the peritoneum separated bluntly by the operator's fingers. Lower transverse incision made on the uterus without reflecting the bladder.

Once the fetus delivered in both occasions atonic uterus noted. uterine closure performed in two-layer, continuous closure with absorbable suture. Skin approximated with interrupted stitches.

#### Conclusion

These two cases illustrate the importance of a PMCS; which is potentially a lifesaving procedure for both mother and baby and could be promptly performed effectively even in a suboptimum location with minimum surgical instruments. Time-consuming activities such as fetal monitoring and transportation to the operating theatre reduce the chances of maternal and neonatal survival and should be avoided

# **OP 33: Transplacental passage of Dengue – A case report**

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### **Background**

Dengue hemorrhagic fever has a variable presentation during pregnancy with a potential for catastrophic consequences for the mother and as such for the fetus as well. The poor outcome in the neonates is attributed as a sequela of the maternal condition. Transplacental infection is either not thought of or considered impossible.

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### Case details

A 36 year old lady presented in her first pregnancy at a period of gestation of 35 weeks with a history of fever for 2 days with reduced fetal movements for 12 hours. As the cardiotocograph was pathological due to a prolonged deceleration she underwent an emergency caesarean section. The birth weight was 1.965 kg. Liquor was meconium stained with APGAR's of 8<sup>1</sup>, 9<sup>5</sup>, 10<sup>10</sup>. The mother developed severe thrombocytopenia in the postpartum period due to Dengue haemorrhagic fever and was transfused with platelets. The baby developed high fever from day 5 onwards associated with thrombocypenia. In the absence of a neutrophil leucocytosis and negative septic screen, septicemia seemed unlikely. Dengue antigen and antibodies (IgM) were positive in the neonate. Although the mother recovered the baby expired on day 12.

#### Conclusion

This report highlights not only the apparently rare occurrence of vertical transmission of dengue but also the potential risk of death for infected neonates. It also underscores the importance that perinatalogists and obstetricians should be aware of the possibility of trans-placental dengue infection so that prompt early management can be instituted.

# **OP 34: Institution – based surveillance study on severe acute maternal morbidity**

Ranatunga G A, Akbar J F, Samarathunga S, Perera Y A G, Kariyawasam L, Kumarasiri J M

Castle Street Hospital for Women

# **Objective**

To determine the feasibility of identifying the Severe Acute Maternal Morbidity (SAMM) cases and to quantify the incidence as a tool to assess the quality of maternal care.

### **Design**

Prospective observational study

# **Setting**

All five consultant units in Castle Street Hospital for Women, Colombo between 1<sup>st</sup> February 2011 and 31<sup>st</sup> January 2012.

### Methods

15 categories of SAMM used in Scotland study were adopted with subdivision of PPH category to include condom Tamponade, Brace sutures. ICU admissions were included according to the clinical indication. Data collection method was adequately explained to all the consultants, medical and nursing staff. Lead person from each unit to collect cases and to fill the forms identified. Data forms collected weekly by the research officer from SLCOG on a designated date of the week.

#### **Results**

There were 23 cases of severe morbidity out of 16180 deliveries. Five maternal deaths occurred during this period. 16 cases of major obstetric haemorrhage (69.6%), 03 cases of eclampsia (13.0%), 02 cases of Dengue fever (8.7%), 01 case each of diabetic coma and liver disease(4.3%) were reported. 5 cases had clinical pathology fits into more than one category of severe morbidity.

#### **Conclusions**

It is possible to collect data on SAMM at the institutional level. 03 out of 05 maternal deaths occurred in castle street Hospital were direct transfers to the ICU. Therefore the SAMM will be a better tool to assess the quality of care of the tertiary care institution than the maternal death review.

# OP 35: Obstetric outcomes of mothers with antenatal depressive symptoms

Rishard M R M, Wijesinghe P S, Nishad A A N, Alahakoon I

Professorial Obstetrics & Gynaecology Unit, North Colombo Teaching Hospital,
Ragama

# **Objectives**

To describe the obstetric outcomes of mothers with antenatal depressive symptoms and factors associated with depression.

### Methodology

A cohort studywas conducted in Professorial unit, Ragama. The validated Sinhala translation of Edinburgh Postpartum Depression Scale was used to detect the presence of depressive symptomsamong mothers between 28 -34 weeks gestation. Depressed and non depressed cohorts were followed up to see the obstetric outcomes and the outcome measures were compared.

#### **Results**

Six hundred and seventy mothers were screened and 14.9% (n=100) found to be having depressive symptoms. Significantly higher proportion of depressed cohort had a history of preterm delivery than non depressed cohort (18.00%, 95%CI 11.7-26.67 Vs 3.86% 95%CI 1.97-7.44). Significantly higher proportion of mothers of depressed cohort had antenatal anemia than non depressed mothers (22% 95 CI 15-31.07 vs 11.11 % CI 7.52-16.12). After analyzing the variance of all the confounding factors, the birth weight was found to be low for mothers with depressive symptoms. There was a statistical significant difference in the birth weight of term babies between two groups (p<.05). There was no significant difference in mode of delivery and the requirement for NICU admission of neonates between two groups.

#### Conclusion

Depressive symptoms during pregnancy are associated with reduction of birth weight. But other obstetric outcomes such as mode of delivery and requirement for NICU admission remain unaffected. Statistically significant Reduction in BW is seen only in term babies who were clinically normal. Presence of depressive symptoms in mothers do not lead to significant short term adverse outcomes in the mother and baby in the absence of severe symptoms. Further follow up studies are needed to assess the long term effects

## OP 36: Accuracy of visual assessment of blood loss after training workshop

Ranaweera A K P, Rishard M R M, Senanayake H M, Ruwanchinthani A

#### Introduction

Postpartum haemorrhage (PPH) is one of the leading causes of maternal mortality worldwide especially in the developing world. Visual estimation of blood loss is used in clinical setting in many countries despite growing evidence of inaccuracy of the method. Nevertheless training will increase the accuracy.

#### **Objective**

To study the accuracy of visual estimation of blood loss after training workshop.

#### **Material and Method**

Three training workshops were conducted in two monthly intervals. All participants underwent pre-workshop assessment by visual estimation of five simulated scenarios

with known measured amount of blood. These were created by using expired packed red cell from blood bank and common surgical materials. After the training workshop all participant underwent post-workshop assessment in similar manner. The main outcome of this study was accuracy of visual estimation of blood loss before and after the training workshop. We assumed that if theestimated blood volume is within five percentage of actual volume it is accurate. Total of 113 participated for all three workshops (13 Medical officers, 3 matrons, 6 Nursing Sisters, 78 Nursing officers, 13 Midwives)

#### **Results**

There was asignificant improvement of 73.2 % (Workshop 1), 53.8 % (Workshop 2) and 35.4% (Workshop3) after each workshop. There was a reduction in percentage of improvement after each workshop which was attributed to dissemination of knowledge by the participants to their colleagues after each training workshop. Training program significantly increase the accuracy in blood loss estimation(p < 0.05) in all post workshop participants.

## Conclusion

Training program increased the accuracy of visual estimation of blood loss.

## OP 37: Patient satisfaction – a measure of quality of patient care in a gynaecological ward – An audit

Madhushanka J K V, Chinthana H D K, Karunaratne K *National Cancer Institute, Maharagama* 

## **Title**

Patient satisfaction – a measure of quality of patient care in a gynaecological ward.

## **Objectives**

The objective of this study was to evaluate patient satisfaction toward doctors, nursing staff, minor staff and with the ward facilities at a gynaeoncology surgical unit.

### **Design**

A patient based self administrative questionnaire was designed to assess the level of patient satisfaction. Questionnaire contains components to evaluate satisfaction towards doctors, nursing staff minor staff and towards ward facilities.

#### **Setting**

Ward 8 (gynecology ward), National Cancer Institute, Maharagama.

#### Method

A total of 100 surgical patients underwent the procedure over a 1 month period. Patients were asked to complete the questionnaire prior to discharge.

First four questions were based on ward doctors. Doctors listening skills, allocating enough time with patients and explaining the illness and future management were assessed.

Next part of the questionnaire was developed to assess the nursing and minor staff. Answering to questions, friendliness and helpfulness were assessed at the questions.

Final part of the questionnaire assessed the general ward facilities and privacy.

Patients were asked to anonymously complete the survey following their ward admission. Data was collated independently and analyzed with descriptive statistics using SPSS version 16.

#### Results

90 %patients agreed that doctors listen to them well. 70 % patients disagreed with doctors take enough time with them.67% of patients surveyed agreed they were able to discuss their treatment openly and able to get good advices about their illness and future management.

Patients were more satisfied about doctors than nurses. Only 55 % agreed that nurses answer their questions well and 66% believed that nurses were friendly and helpful to them.

The lowest satisfaction rates were observed in the terms of minor staff relationship with patients (40%).

Generally ward facilities were not in a standard to satisfy patients .Only 40% agreed that ward was clean and neat with adequately securing their privacy.

#### **Conclusions**

Data from this hundred cohort of patients suggest that the overall level of satisfaction was high but not tothe international standards (International patient satisfaction index and patient satisfaction index). The study findings indicated the need for evidence-based interventions in areas such as doctor patient communication duration, minor staff care, patient's physical comfort and privacy. Efforts should focus on lengthening the doctor patient communication intervals and improving minor staff quality of care, and also improving the overall cleanliness and neat fullness of the ward.

## OP 38: Do midwifery nurses practice medio – lateral episiotomy?

Jayasinghe J A J N, Ziard N M H, Kariyawasam L Ward 07, Castle Street Hospital for Women, Colombo 07

### **Objectives**

To audit the technique of performing episiotomy by nurses and assess the adverse outcomes due to errors of technique.

#### Method

This audit was conducted at a tertiary care hospital over a three months period. All deliveries with an episiotomyperformed by nurses were assessed. Distance from midlineto theorigin, length and angle of the episiotomy were measured in the dorsal position immediately after suturing.

Correct medio-lateral episiotomy is considered asstarting from midline, with 40°-60° angle and extending laterally for 3-5cm.

Vaginal, vestibular or perineal tears that needed suturing were considered as adverse outcomes.

#### **Results**

Two hundred and six patients had received episiotomies. Correct technique(in all three parameters) was observed only in 11(5.3%) patients.

Midline origin of the episiotomy was observed in 91(44.2%),  $\leq 5$ mm 97(47.1%) and  $\geq 5$ mm 18(8.7%).Only 14(6.8%) episiotomies were within the correct angle and 192(93.2%) had an angle of  $\leq 40^{\circ}$ . Lengths were  $\leq 3$ cm in 78(37.9%) and 3-5cm in 120(58.3%). Only 8(2.4%) patients had got  $\geq 5$ cm episiotomy and out of which 6 had instrumental deliveries.

Twenty patients (9.7%) had adverse outcomes including third degree perineal tears, but none following completely correct technique. Out of this 20 patient's 13(65%) were primigravida and 12(60%) had babies weighing more than 3kg.

#### Conclusion

Majority of the episiotomies were not truly medio-lateral. This study showed increase association of perineal tears with improper technique which would have been prevented by correct technique. Therefore more focused training in episiotomy is to be adapted during their midwifery training.

## OP 39: Factors associated with maternal weight gain among uncomplicated pregnant mothers attending a tertiary care hospital

Malinda R A Y, Manamperi R M, Maithripala W K H A, Arambepola C Faculty of Medicine, University of Colombo, Sri Lanka

#### **Objective**

To determine the factors associated with maternal weight gain in women with uncomplicated pregnancies attending a tertiary care hospital.

## Methodology

Data was collected from 110 postpartum mothers at De Soysa Hospital for Women, Sri Lanka. Pregnancy record, BHT and the questionnaire were used.

Data was presented as proportions and means and assessed by applying t test and Odds ratios.

#### **Results**

Risk factors associated with poor weight gain were: being Tamil (OR =2.7) or Muslim (OR = 1.4); lower level of education (OR=2.5), lower level of income (OR=4.8); engaged in activities for > 3 hours a day (OR=1.6); rest for <3 hours (OR=1.8);  $\leq$  6 hours of night sleep(OR =1.7); being in a nuclear family (OR =1.9); consuming milk < 2 portions a day (OR=1.4); and inadequate knowledge on the topic (OR=2.9). Among employed women, risk factors were: work for  $\geq$  40 hours per week (OR=1.2); continuous work > 2 hours (OR=1.3); rest for < 1 hour (OR=2.7) and no risk with strenuous work. None of the dietary practices were associated with poor weight gain. Only low education, low household income, inadequate knowledge on topic was found to be significant (p < 0.05). There was a significant difference in maternal weight gain and weight of the new born, among cases and controls (p < 0.05).

#### **Conclusions**

Low maternal education, low income and inadequate knowledge regarding maternal weight gain were identified as significant risk factors.

Mean weight gain of mother and birth weight of the new born showed a significant difference among cases and controls.

# OP 40: Intracervical foley catheter insertion versus intracervical PGE2 gel application for cervical ripening in primi gravid – A randomized controlled trial

<u>Gunawardena L D W</u>, Gunawardana G H K K Ward 5, Teaching Hospital, Kandy

## **Objective**

To compare the changes inmodified Bishop's score(MBS) after intra-cervicalFoley catheter insertion versus intra-cervical PGE<sub>2</sub> gel application for pre-induction cervical ripening.

## Method

Uncomplicated primips with singleton pregnancies who underwent induction of labour at 40 weeks+5days were randomized to receive intra cervical Foley catheter or by intra cervical application of PGE<sub>2</sub> gel as a method of pre-induction cervical ripening. Change in mean MBS, maternal side effects (uterine hyper-stimulation, Broncho constriction, nausea and vomiting, post partum hemorrhage and maternal fever) and fetal side effects (meconium at membrane rupture, APGAR at 5 minutes and PBU admission) between the two groups were compared.

#### Results

Mean MBS prior to intervention in PGE<sub>2</sub> group (n=72) was 4.24 (95%CI,4.08-4.40) and Foley group (n=73) was 4.63 (95%CI,4.45-4.81). This was not statistically significant. Mean MBS following intervention in PGE<sub>2</sub> group was 8.87 (95%CI,8.45-9.22) and Foley group was 9.04 (95%CI,8.76-9.31). Increase in mean MBS in PGE<sub>2</sub> group was 4.63 (95%CI,4.17-5.09) and in Foley group was 4.41 (95%CI,3.98-4.84). The difference was statistically not significant. There was no statistically significant difference in foetal side effects between two groups. Uterine hyper-stimulation and Broncho constriction were significantly higher in PGE<sub>2</sub> group (P<0.01).

#### **Conclusions**

Both PGE<sub>2</sub>and Foley catheter insertion are equally effective for pre-induction cervical ripening in primips. Even though PGE<sub>2</sub> was associated with significantly higher incidence of uterine hyper stimulation, there was no difference in fetal side effects.

## **OP 41: Fetal scalp stimulation tests**

<u>Kumarapperuma K A U S</u>, Goonewardene I M R *University Obstetrics Unit, Teaching Hospital, Mahamodara, Galle.* 

#### Introduction

Intrapartum fetal monitoring is very important in obstetrics. This study was done to assess the effectiveness of Fetal Scalp Stimulation Tests in predicting neonatal asphyxia.

#### Method

Women with uncomplicated singleton pregnancies with a cephalic presentation at >37 weeks gestation who were in spontaneous early labour or induced (n = 243) were studied. A cardiotocograph (CTG) was commenced and 5 minutes later Digital Scalp Stimulation (DST) was carried out, and the CTG was continued for 5 minutes. For those who had a non reactive CTG, an Allis clamp was applied to the fetal scalp and the CTG was continued for another 5 minutes. Results of CTG before and after the fetal scalp stimulation, and the 5 minute APGAR scores of the neonates were documented and compared.

#### Results

The initial CTG was non reactive in 107 (44%) and another 59 (24%) became reactive after DST. In the 50 patients who had non reactive CTGs following DST, and therefore had Allis clamping of the fetal scalp, the CTG became reactive in a further 27(11%). Compared to CTG alone, Scalp stimulation tests have a better specificity (96% vs 58%, p < 0.001), positive predictive value (65% vs12%, p < 0.05) and accuracy (95% vs 59%, p < 0.001) in predicting five minute APGAR scores of the neonate.

#### Conclusion

Fetal scalp stimulation tests are effective in screening for intrapartum hypoxia and they complement and improve the specificity, positive predictive value and accuracy of the CTG in predicting neonatal asphyxia.

## OP 42: RANZCOG assessment of Sri Lankan specialist in Obstetrics and Gynaecology : An audit

Ellepola H<sup>1,2</sup>, Seneviratna S<sup>1</sup>, Mano H<sup>1,2</sup>

### Introduction

In Australia, the Royal Australian New Zealand College of Obstetrics and Gynaecology (RANZCOG) is appointed by the Medical Board of Australia (MBA) to conduct assessments of International Medical Graduates (IMGs) with specialist qualifications in obstetrics and Gynaecology. The assessment process compares the training and experience of an overseas trained specialist to the competencies expected of a specialist trained through the MRANZCOG/FRANZCOG training program, as prescribed by the RANZCOG curriculum. This process determines whether the Specialist international medical graduate (SIMG) applicant is considered 'substantially', 'partially' or not comparable' to an Australian-trained specialist.

## **Objective**

To evaluate the out come of Sri Lankan (SL) Post Graduate institute of Medicine (PGIM) trained O&G Specialist who have been assessed by RANZCOG from 2009 to 2012.

#### Methods

Data were collected through interview administered questioner.

#### Results

Total number of 151 IMGs were assesses by the RANZCOG from 2009 to 2012. The top five countries IMGs were assessed were from India, UK, South Africa, Sri Lanka and Malaysia. Totally 17 specialists and 1 senior registrar from Sri Lanka were assessed. Out of which 8 were assessed as 'Substantial', 8 as 'partial comparable'. Only one specialist and a senior registrar was assesses as not comparable to an Australian trained specialist. Out of the SL SIMG cohort; 3 appealed against the RANZCOG primary decision. Total 60% of Sri Lankan IMG's were not satisfied with the final out come. Main critics of this system were lack of consistency, transparency and uniformity. All SL trained specialist agreed that the PGIM training standards were in par with the RANZCOG specialist training curriculum; 90% stated formal training and assessment in ultrasound scanning, colposcopy, pelvic floor surgery, communication and laparoscopy skills would further strengthen the SL O&G training.

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#### Conclusion

PGIM specialist training program in Obstetrics and Gynaecology is well structured and recognized by the RANZCOG. Incorporating a dedicated Ultrasound, Colposcopy, communication and surgical skill training and assessment process will further strengthen the training.

## **OP 43: Adverse Obstetric and Perinatal Outcomes due to Previous Miscarriage**

<u>Samarawickrama B G S</u>, Karunarathna S M G Sri Jayewardenepura General Hospital, Nugegoda, Sri Lanka

## **Objective**

To explore a selected set of subsequent pregnancy outcomes in women following an initial miscarriage who attend Sri Jayewardenepura General Hospital.

## Design

Retrospective Cohort Study.

## **Setting**

Ward 02, Sri Jayewardenepura General Hospital, Nugegoda, Sri Lanka.

#### **Methods**

Main outcome measures were (A) Maternal outcomes: Pregnancy induced hypertension, placental abruption, placenta praevia, malpresenation, postpartum haemorrhage and morbidly adherent placenta. (B) Perinatal outcomes: preterm delivery, low birth weight, stillbirth, neonatal death. A distinct comparison of women with a first pregnancy miscarriage versus women with one previous successful pregnancy was done. Data was extracted on maternal and perinatal outcomes in women who delivered their babies after 28 weeks of gestation between 1<sup>st</sup> of January 2009 and 31<sup>st</sup> December 2010.

#### **Results**

We identified 161 women who had a miscarriage, 1214 who had had a previous live birth. A higher risk of malpresentation (OR 4.1, 99% CI 2.2–7.7), pregnancy induced hypertension (OR 3.2, 99% CI 1.0-10.4), placenta praevia (OR 1.9, 99% CI 0.1–33.9), postpartum haemorrhage (OR 1.5, 99% CI 0.7-2.9), placental abruption (OR 1.6, 99% CI 0.5-5.3), morbidly adherent placenta (OR 1.6, 99% CI 0.5-5.3), stillbirth (OR 3.8, 99% CI 0.4-35.8), low birthweight (OR 2.4, 99% CI 1.2–5.1), preterm delivery (OR 1.9, 99% CI 0.9–4.1) and neonatal deaths (OR 1.9, 99% CI 0.1-33.9) was seen in the miscarriage group than in who had a previous live birth.

#### Conclusion

A higher risk of obstetric and perinatal complications in subsequent pregnancies following an initial miscarriage warrants closer monitoring.

## OP 44: Safety and success of Post cesarean Intra Uterine Contraceptive Devise (IUCD) Insertion in Kandy Teaching Hospital

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<sup>1</sup> Teaching Hospital, Kandy <sup>2</sup> Post graduate trainee in Community Medicine, Post Graduate institute of Medicine, University of Colombo, Colombo

## **Objective**

To determine safety and success rates of immediate post cesarean IUD insertion.

#### **Methods**

An observational study was conducted Teaching hospital, Kandy. Women underwent post cesarean section IUCD insertions were followed up longitudinally for 6 months. Primary outcome measures (expulsion rates) were compared with that of immediate Post placental IUCD group following vaginal delivery.

#### **Results**

Out of 121 caesarian sections, there were 99 (81.8%) emergency sections Six women (5%) developed a mild pain while 2 (1.7) developed moderate pain following insertion. The rest (93.3%) had no pain or no change in pain. 5 (6%) had abnormal uterine bleeding. Pelvic inflammatory disease (PID) and uterine perforation were developed in one woman each. Six (5%) IUCDs were expelled out before six months. No IUCDs were expelled in women with abnormal uterine bleeding (AUB), pain, perforation or PID. IUCDs were expelled in 1 (4.5%) of electives and 5(5.5 %) of emergency sections. But the difference was not statistically significant (p=0.5). Two (2.1%) IUCDs were expelled in women who have one child and 4 (7.5%) IUCDs were expelled in women who have two or more children. The expulsion rate in women after vaginal delivery was 17.7 % (64 out of 362 insertions) which was higher than that of post CS IUD insertions (5%) (p<0.001)

#### **Conclusions**

With the rising of cesarean section rate and higher number of woman with poor compliance for family planning, post cesarean IUCD insertion appears to be a safe and effective option for Sri Lankan women. Attitudes and practices of the obstetricians with regard to post CS IUCD should be changed.

## OP 45: Public perspectives of changing the abortion law: Report of Pilot Study

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<sup>1</sup>Intern medical officer, <sup>2</sup>Consultant Obstetrician & Gynaecologist, Sri

Jayewardenepura General Hospital

## **Objectives**

There are about 700 induced abortions taking place in Sri Lanka per day. Current abortion law of Sri Lanka only permits abortions when the mother's life is in danger. There is consensus among stakeholders to amend the law. The public opinion was not sought in a scientific manner.

#### **Methods**

A descriptive cross sectional study of a randomly selected group of people attending a general medical clinic at Sri Jayewardenepura General Hospital via a pre tested self administered questionnaire.

#### Results

There were 30 subjects. Twenty five (83%) females and five males (17%). Mean age of the sample was 45years. 60% were aware that current law permits termination for saving mothers life and 36% believed the current law permits termination for lethal anomalies. 86% were aware that illegal abortions are taking place in Sri Lanka and only 22.5% were aware that it is well over 500. 53%, 60% and 43% agreed that termination should be offered in case of rape, lethal malformations and incest respectively. Amount those who disagree 70-75% were due to religious beliefs.

### Conclusion

The awareness of abortion law among general public seems to be low and erroneous. This has to be corrected. Majority are in favor of changing the abortion law with regard to rape and lethal malformations.

## OP 46: Routine Kleihauer test can be cost effective

<u>Vithana D<sup>1</sup></u>, Perera H<sup>2</sup> Kariyawasan C<sup>3</sup>

### **Background**

Though Kleihauer testing of maternal blood is necessary to accurately calculate the exact amount of gamma globulin needed to neutralize the fetal red cells transfused automatically at delivery of a Rhesus negative mother with a Rhesus positive off spring, many instances it is not carried out. Knowledge on the amount of feto-maternal transfusion during childbirth will indicate whether the current empirical doses given for this purpose are in fact necessary or not.

## **Objective**

Determine the volume of fetomaternal transfusion (FMT) in vaginal delivery and delivery by caesarean section and ascertain the justification of administering the current postpartum prophylaxis doses of Anti D antibodies and determine the role of Kleihauer test in estimating FMT.

## Study design

Descriptive study

#### Method

Total of 19 examinations were performed, 10 of after vaginal delivery and 9 of after cesarean section. FMT was assessed by Kleihauer test.

#### Results

The fetal red blood cell volume entering to maternal circulation after delivery (both vaginal and delivery by cesarean section) was <4 ml in all cases. There is a tendency to get higher values (5-10 percent) in Kleihauer test in cesarean section (range from 0.04-0.2ml) when compared to vaginal delivery (0.04-0.1ml). Calculated amount of Anti D antibodies necessary for all 19 cases as individual was less than 20 micro gm.

#### Conclusion

Following vaginal delivery and delivery by cesarean section FMT was insignificant. Even though there is a tendency to have higher FMT in delivery by caesarean section it cannot be considered a risk factor for FMT.

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Rather than giving empirically large dose (300 micro gm), Kleihauer test followed by a tailor made dose of Anti D antibodies will be adequate. Single vial of Rhogum (contain 300micro gm) is much more costly (around 5000 rupees) when compared to cost of Kleihauer test (500 rupees). Therefore it is not cost effective to give empirically large dose Anti D antibodies as a routine postpartum prophylaxis in all Rhesus negative mothers without assessing FMT.

## OP 47: The women's experience of the menopause in the rural teaching district of Bpkihs – A population based study

Pokharel H, Pokharel P K *Nepal* 

#### **Objectives**

To determine the physical and psychological symptoms/problems experienced by menopausal women.

## Methodology

A cross sectional study was conducted in the Sunsari district. Total of 355 menopausal women were enrolled using systematic random sampling. The women were interviewed using semi structured questionnaire. Depression was assessed according to Center for Epidemiological Studies Depression Scale (CES-D).

#### **Results**

The majority of women (63.7%) were illiterate and only 36.3% were literate. About 63.7% of them were living below the poverty line. Mean age of menopause was 46.81± 4.64 years and its major cause was natural(89.9%). Regarding menopausal symptoms, majority of women had experienced painful joints (66.8%) followed by headache (62.8%), decreased sexual desire (60.6%), dizziness (56.9%), trouble with memory (48.7%), irritability (51.5%), palpitation (47.6%), hot flushes (35.8%), sleep problems (33.8%) anddepression(31.5%). However, very few women reported them as problem. About 19.7% of them reported painful joints, 13% reported headache and 11.3% reported dizziness being experienced as the problem. 31.5% women responded to being unable to cope with menopausal symptoms. Menopausal symptoms were experienced most frequently by women living below poverty line as compared to women living above poverty line. Depression was significantly associated with low economic

condition.54.6% of respondents who seeked treatment visited health care institutions for the treatment.

#### Conclusion

Most of the women experienced menopausal symptoms, but very few women reported them as the problem and sought for treatment. No one visited traditional healers.

## OP 48: Assessment of recommended health screening among health care workers of peri and post menopausal age group

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#### Introduction

Postmenopausal period is vulnerable for a woman as her risk of getting several non communicable diseases such as cardiovascular diseases, malignancies and osteoporosis, increases significantly. This necessitates the routine screening and North American Menopause Society, American Academy of Family Physicians and WHO has laid down guidelines.

## **Objective**

To identify the extent of risk associated with postmenopausal health problems among healthcare workers and to identify the extent to which they have undergone the recommended health care screening.

### **Design**

A descriptive cross sectional study

#### **Setting**

Female health care workers of peri and postmenopausal age group at Sri Jayewardenepura General Hospital.

#### Method

A self administered questionnaire was distributed among healthcare workers and assessment of risk factors and screening states for cardiovascular diseases, Diabetes mellitus, Osteoporosis, cervical and breast cancers were done.

#### **Results**

Seventy three staff members were responded. Out of this 93 %( n=68) of staff found to have high risk for cardiovascular diseases. All of the staff had blood pressure ,blood sugar and body weight assessment within 3 years and and their hypercholesterolemia screening.

Majority 97 % (71) of patients are at risk of osteoporosis. Although most of them are at risk of osteoporosis only 20%(n=14) of staff are getting supplements.

Only 19% (n=14)of the staff had Pap smear during last three year. Self, clinical and mammographic breast assessment was done by 57% (n=42), 23% (n=16) and 16% (n=12) of persons respectively.

#### Conclusion

Although screening for hypertension and diabetes are done by a significant proportion of health staff, screening for common malignancies were poor. Almost all staff is at risk of osteoporosis but only a few takes supplements. Awareness programs for common malignancies are recommended.

## PP 01: Bilateral papillary serous cyst adeno carcinoma of ovary complicating pregnancy

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### **Objective**

To discuss a rare case of bilateral papillary serous cyst adeno carcinoma of ovary complicating pregnancy.

## Design, setting and methods

Case report

#### Results

A 39 year old women in her third pregnancy found to have a right side ovarian cyst 8 x 7 cm with solid and cystic areas by dating scan at 13 weeks of period of amenorrhoea. There was no family history of breast, ovarian or colonic cancer. CA 125 u/ml level was 38.9 (1.9-16.3). She underwent right sided salpingo-oophorectomy at 14 weeks of period of amenorrhoea. Following histological diagnosis of papillary serous cyst adenocarcinoma, total abdominal hysterectomy and left side salpingo-oophorectomy was done. The uterus and tubes found to be normal, no abnormal lesion were seen in the peritoneal cavity or omentum. Bilateral ovarian involvement of malignancy with intact capsular surface was revealed histologicaly.

### **Conclusion**

The optimal management of pregnant patients with ovarian cancer is not well established, but several reports found good fetal outcome with a conservative surgical approach. Having two children and tumor involving both ovaries couple wanted to undergo radical surgery after counseling.

PP 02: Breast cancer in pregnancy

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Introduction

Pregnancy-associated breast cancer refers to breast cancer diagnosed during pregnancy and twelve months postpartum. Breast cancer is the most common malignancy

associated with pregnancy and is a rare but well-recognized complication. It is

hypothesized that as more women continue to delay childbearing, the incidence of

breast cancer in pregnancy will increase. Because of the lack of clinical experience with

breast cancer in the setting of pregnancy, given its relative infrequency, many patients

and physicians believe the diagnosis puts the life of the mother at odds with that of the

fetus, but available data suggest that termination of the pregnancy does not improve the

outcome for pregnant women with breast cancer. Often diagnosis is delayed because

neither patient nor physician suspects malignancy.

**Case Presentation** 

We report a case of 30 year old woman presented at 20 weeks of her second pregnancy

with breast lump. The ultrasound scan showed a mass with irregular margins and

FNAC was inconclusive and suggested excision biopsy which showed an invasive duct

carcinoma. She underwent mastectomy and level 2 axillary clearance and elective

caesarean section at 37 weeks. Now she is awaiting hormonal therapy

Conclusion

Although the data are limited, pregnant patients with cancer can be treated with

systemic chemotherapy with minimal risks to the fetus during the second or third

trimester. Management of breast cancer during pregnancy require multidisciplinary care

and careful consideration of the patient's stage of disease, the gestational age of the

fetus, and the preferences of the patient and her family.

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## PP 03: Steroid cell tumor of the ovary in ayoung woman with severe hyper-androgenism

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#### Introduction

Steroid cell tumours (Hormone secreting) of the ovary account for less than 0.1% of all ovarian tumors and may present at any age. Most of them are diagnosed at an early stage and do not recur or metastasize.

#### **Case History**

A 33 year old mother of two children presented with secondary amenorrhea, progressive weight gain, acne and hirsutism for two years. She had been treated with combined oral contraceptive pills (COCP) for 3 months and advised on diet control and weight reductionby a GP. Menstruation resumed but was limited to the duration of treatment while acne and hirsutism continued to worsen. She also developed a deepening of voice.

Examination revealed an obese woman (body mass index of 35.8) with acne, male voice, hirsutism (modified Ferriman-Gallwey score of 28) and clitoromegaly. Abdomino-pelvic examination was normal.

Abdominal and pelvic ultrasound revealed a 5x5cm echo dense solid mass with increased vascularity arising from the left ovary, with no other positive findings. Serum testosterone was elevated 3.31 ng/ml( 0.15-0.80). Serum luteinizing hormone, CA-125 serum beta HCG and Alfa fetoprotein levels were normal.

Left sided salpingo-oophorectomy was performed. No other abnormalities were found. Histology revealed a steroid secreting ovarian tumor. She resumed menstruation and testosterone level returned to normal within six weeks of surgery.

#### **Conclusion**

High levels of serum testosterone with features of virilism warrant proper evaluation. In stage IA disease with fertility wishes, a unilateral salpingo-ophorectomy is adequate since the frequency of bilateralism is only 6% and majority is benign.

## PP 04: Case report: A fatal case of acute iron poisoning in pregnancy following intentional iron ingestion

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#### Introduction

Although iron supplement is the commonest treatment in pregnancy, its overdose may harm the mother and fetus. Iron poisoning may lead to serious complications including maternal death in the absence of timely and appropriate management. Although ingestion of more than 40 mg/kg elemental iron or presence of severe symptoms require referral, these recommendations are based on few case reports only .We describe a fatal case of acute suicidal ingestion of iron tablets presented in the late phase to tertiary care centre.

#### Case

Eighteen year oldprimi in her 26 weeks of gestation, was transferred from a peripheral hospital in unconscious state with a history of ingestion of unknown tablets. She was ventilated and cardio pulmonary resuscitation initiated in the emergency unit. While the gastric lavage and abdominal X-Ray failed to show any evidence, high serum iron levels and the history of empty iron tablet container at home guided the team to arrive at a diagnosis of acute iron poisoning. Activated charcoals, Desferrioxamine were administered. Despite intensive multidisciplinary supportive care, mother who was in the phase 3 of iron poisoning died due to severe acidosis and myocardial depression following day.

#### Conclusion

This maternal death warns the care providers that iron supply over one month may be risky especially if woman has risk factors for suicide or deliberate self harm. As a reflective practice, care providers must increase the vigilance to recognize the risk factors for maternal suicide, refer them appropriately. Restricting the supply of potentially fatal iron supplements especially when their initial haemoglobin levels are satisfactory also can be considered.

## PP 05: An Audit of Informed Consent for Elective Gynaecological Surgery

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### **Objectives**

In most centers in Sri Lanka consent foe surgery is obtain by nursing staff, which is suboptimal. Our object was to measure the compliance by the medical staff in the us of an improved process of consenting for surgery

#### **Design**

An audit cycle

#### **Setting**

Professorial Gynaecology unit of North Clombo Teaching Hospital over a period of 6 weeks.

#### Methods

A detailed consent form was designed and the medical staff briefed on the process of obtaining consent. The patient records were scrutinized and the percentage of adequate consenting by appropriate staff member was determined. Extent of documentation of risks and whether adequate time (>24 hours) was given for the patient to give consent prior to surgery was assessed.

#### **Results**

All fields were completed in 70 out of 78 consent forms (90%). Eight consent forms(10%) were incomplete. Of the 70 completed forms 51 were administered by intern medial officers (73%) and the rest were by senior registrar. However, only 20 forms (29%) were completed with regard to risks. Consent was obtained more than 24 hours prior to surgery on 57 occasions (81%)

#### **Conclusions**

Although in a majority consent was obtained at the correct time, only 27% was by a senior level staff member. Only 29% were complete with regard to the potential risks. Training and guidance on obtaining informed written consent and procedure specific consent forms will help improve documentation and minimize medico-legal implications.

### PP 06: An Unusual Presentation of Endometriosis

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#### **Case Report**

A 34 year old female presented with an 18 month history of a weeping mass and progressive tenderness over the right edge of her caesarean section scar performed 8 years ago. An USG of her pelvis demonstrated a 34x17x 22 mm mixed echo mass with increased blood flow on Doppler examination. The appearances were suggestive of an inflammatory mass. It was further investigated with a MRI which revealed a 5x4 x4 cm area of abnormal signal in the subcutaneous fat. This was initially thought to be active granulation tissue.

Subsequently she underwent a wide local excision of the mass by the plastic surgery team. Interestingly, the histology confirmed endometriosis. This case highlights an exceptionally unusual presentation of endometriosis and the need for multidisciplinary input for its management.

## PP 07: Rare case of primary malignant mixed mullein tumor of the uterus

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#### Introduction

Malignant mixed mullein tumors are rare neoplasms. It is also called ascarcinosarcomas and composed of malignant epithelial (carcinomatous) and mesodermal (sarcomatous) components. Even though the commonest site of occurrence is uterus it accounts for 1-2% of uterine carcinomas.

## Case report

We report a case of 30 year old woman; a diagnosed patient with polycystic ovarian syndrome, hypothyroidism and primary subfertility for 5 years; presented with

menorrhagia for 3 months duration. Examination revealed fibroid uterus compatible with 20 weeks size gravid uterus, confirmed by ultasonography. Total abdominal hysterectomy performed as the uterus was very soft and friable with naked eye appearance of degeneration and necrosis. Histological diagnosis came as malignant mixed mullein tumor of the uterus with no cervical infiltration and Immunohistochemistry showed that the spindle cells were negative for cytokeratin. Now she is on chemotherapy.

#### Conclusion

Malignant mullein tumors are rare, prognosis is poor and depends on staging. At present Current surgical treatment modality for uterine carcinosarcoma is surgical staging with total abdominal hysterectomy bilateralsalphingo oophorectomy, pelvic lymphadenectomy, Para aortic lymph node sampling and peritoneal washings with post-operative chemotherapy. Still optimal management remains controversial and there are no established evidence based guidelines available for the management of this condition.

## PP 08: Juvenile granulosa cell tumor of ovary presented with secondary amenorrhea

## <u>Saman kumara Y V A L,</u> Biyagama B R G D N K, Gunawardena L D W, Gunarathne P M, Kumarasiri J M

Castle Street Hospital for Women

#### Introduction

Granulosa cell tumors are sex cord stromal tumors of ovary represents 5% of all ovarian malignancies. Among which 95% are adult type and 5% are juvenile type tumors. Juvenile granulosa tumors frequently presents as primary amenorrhea, precocious puberty and abdominal pain.

## Case report

We report a case of 18 year old schooling girl presented with secondary amenorrhea for six month duration and abdomino pelvic mass. Ultrasonography and contrast CT revealed ovarian mass with solid and cystic areas, without free fluid or enlarged lymph nodes. Low FSH and high level of inhibin detected in hormone profile. Right sided salphingooophorectomy done for  $15 \times 15$  cm2 ovarian cyst with capsular breech however no evidence of intra-abdominal metastasis found. Histology revealed juvenile granulosa cell tumor with capsular rupture with no involvement of fallopian tube. Inhibin is positive in immunohistochemical assessment.

#### **Conclusion**

Juvenile granulosa cell tumors contribute a small fraction of all primary ovarian malignancies. Although common presenting symptoms are primary amenorrhea orabdominal mass rarely they can present with secondary amenorrhea as this patient. Management starts with surgery for definitive tissue diagnosis debunking and staging. Unilateral salphingo oophorectomy for patient who wishes to retain their fertility and total abdominal hysterectomy for patients who do not have fertility wishes. Despite having controversies regarding adjuvant chemotherapy and radiotherapy still there is a place as a treatment option since there is a possibility of recurrence long term follow up with imaging and tumor marker assays are recommended for all the patients.

## PP 09: Expectations and attitudes of mothers before child birth

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## **Objectives**

To describe the expectations and attitudes of mothers before the childbirth

### Design ,settings and methods

A descriptive study was carried out in the professorial unit of Colombo South Teaching Hospital until the sample size of 100 was reached. Data was collected using a self-administered questionnaire.

#### Results

Women between ages 20-38 (mean 30) in their POA of 31- 40 weeks (mean 36) participated in the study. 92% of patients expect educational programs in the ward, 42 of them preferred lectures as the method of education. Majority of patients did not want form support groups. 75% of patients expect reassurance and consolation during vaginal delivery (VD) and caesarean section (CS). 68 patients wanted their husbands to accompany them during delivery. 32 mothers selected listening to music in the labour room. 52 patients emphasized adequacy of privacy. 63% considered pain relief is essential in labour while 49% thought pain relief is not needed during VD. 47% expect the doctor to choose a suitable method. Majority of patients think VD is the best way to deliver. 50% think shouting is an essential part in labourand think it will reduce the pain. Only 34 % of patients prefer CS rather than VD and 18% of patients believe childbirth has an effect on future sex life.

#### **Conclusions**

Patients have different expectations and attitudes regarding childbirth and most of them have desire to learn. This should be taken in to account to provide patient centred care.

## PP 10: Nausea and vomiting during pregnancy

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### **Objectives**

To describe nausea and vomiting in pregnancy, its prevalence, risk factors of nausea and vomiting in pregnancy and the effect to the quality of life

## Design, settings and methods

A descriptive study was carried out in the professorial unit of Colombo South Teaching Hospital until the sample size of 100. Data was collected using a check list and short form 36 to assess the quality of life.

#### **Results**

Women 18-40 years of age(mean 29) in their POA of 11-40 weeks(mean 32) participated. 95.8% of women had nausea and vomiting in pregnancy (NVP). The mean number of weeks of starting symptoms was 8 and cessation was 16 with peak symptoms occurring in the tenth week.73.9% patients had loss of appetite. Past history of NVP was a significant association with NVP (P=.007). Migraine, past history of miscarriage, age >35, parity showed no significance (P>0.05). Demographic factors, change in residence, educational level, social class, cooking during pregnancy showed no significance (p>0.05).

Quality of life during this period is significantly affected; Low scores for the SF-36 were found for all items.

#### **Conclusions**

Nausea and vomiting is a common problem. The associated factors to NVP in local context should be investigated further. Nevertheless it causes significant impairment of quality of life.