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Thromboembolic Disease in Obstetrics

Vidya Kishore and Majida Al-Irhayim, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman.

To study the incidence and etiology of thromboembolic disease in pregnancy and puerperium, a retrospective study of thromboembolic disease (VTE) was done at the Royal Hospital for 9 years (1999-2007). Thromboembolic disease is an important cause of direct maternal death; however, VTE is 10 times more common in pregnant women than non-pregnant women of the same age and can occur at any stage of pregnancy, puerperium being the time of highest risk. The overall incidence of VTE in the Royal Hospital in obstetrics was 0.08%. Deep vein thrombosis (DVT) constituted 77.5%, PE 15% and cerebral vein thrombosis 7.5%. There were 13 maternal deaths in the last 9 years due to various causes. One was due to a massive pulmonary embolism in 2002. Out of a total of 25 antenatal cases of DVT, two had DVT following a road traffic accident. There were 6 cases of DVT with a history of congenital thrombophilia and 4 with recurrent incidence. Out of a total of 8 cases of postpartum DVT, six cases were following caesarean section, and two following vaginal delivery. Amongst five cases of pulmonary embolism, three were after caesarean section, and two following vaginal delivery. There were three cases of cerebral vein thrombosis, two during the antenatal period and one in the postpartum period. DVT was more common in the second trimester, higher in para 1-5, higher in younger women 20-30yrs. Of the six cases of thrombophilia, the commonest was Protein S deficiency. Recurrent DVT was also noted in patients with a family history of the disease and those with congenital thrombophilias.

Changing Trends in Incidence and indications for cesarean section at the Royal Hospital, Oman: 1999– 2006

Seerat Minocha and Anita Zutshi, Division of Obstetrics and Gynecology, Royal Hospital, Ministry of Health, Muscat, Oman. Syed Guahar Rizvi, Sultan Qaboos University Hospital, Muscat, Oman.
Email: zutshi@omantel.net.om

The rate of caesarean section, once performed as a maternal life saving procedure, has quadrupled since 1965. Some of the reasons for increasing rates all over the world may be reduced parity, older women having children, electronic fetal monitoring, changing protocols for breech presentation management, the reduction in midpelvic vaginal deliveries, the rising incidence of HIV infection, prematurity and concerns about malpractice litigation. This study aims to review the changing trends of caesarean section at the Royal Hospital, which is the main tertiary care teaching hospital in Oman. A retrospective analysis was performed on the obstetric data obtained from delivery suite and obstetric theatre computer records including indications and patient characteristics e.g. age, parity, previous scar on uterus, perinatal morbidity and mortality. A total of 6,950 caesarean sections were identified among 39,705 deliveries (17.5%). The caesarean rate increased over time from 11.07 % in 1999 to 13.8 % in 2001 and 18.6 % in 2006. In this group, total high risk pregnancies were 6,582 (94.5 %) and low risk 368 (5.5 %). Indications arising during labour were the leading group (40%), followed by previous uterine scar (20%). The trend of the various indications was similar over 8 years. Perinatal morbidity, identified through Special Care Baby Unit admissions and Apgar score < 7, revealed a marginal decrease in 2006 (2.2%) as compared to 1999 (4.4%) but it was not statistically significant (p>.005). Changes in the practice of obstetricians e.g. more elective caesarean deliveries for breech presentation, increasing expectations from prospective parents and women's requests were the main causes of increasing rates.

Vaginal Birth After Caesarean Section

Devyani Narayan, Department of Obstetrics and Gynecology, Khoula Hospital, Muscat, Oman.
Email: devnaryn@omantel.net.om

Caesarean section rates have risen worldwide to around 25%. Approximately 10% of the obstetric population has had one caesarean section. Obstetricians caring for these patients need to consider the implications for pregnancy, labour and delivery after previous caesarean section. The main consideration is the balance between risks and benefits of repeat elective caesarean sections versus trial for vaginal delivery. In time it has become apparent that a vaginal delivery could occur both successfully and safely after a previous lower segment caesarean section. Various studies have noted a scar dehiscence rate of <1%, with no maternal mortality or significant morbidity. With the advent of better anaesthesia, surgical techniques and antibiotics, the maternal mortality and morbidity rates have decreased, but the maternal mortality with elective caesarian section is still higher than vaginal delivery. In addition to the inherent risks of any surgical procedure, there are several reports which discuss the negative impact on subsequent fertility and psychological status. The incidence of placenta praevia increases with increasing numbers of caesarean deliveries and is a recognized risk factor for placenta accreta. Khoula Hospital has an annual delivery rate of 4,000 and approximately 10% are with previous caesarean sections. An analysis of the various variables affecting vaginal birth after one previous caesarean section has been done. To analyse the variables affecting vaginal birth after one previous caesarean section, a prospective analysis of all cases of previous one caesarean section delivered at Khoula Hospital was carried out between December 2002 and October 2007.

Outcome of Assisted vaginal breech delivery versus Caesarean section for breech in term and preterm singleton pregnancies at Royal Hospital: 1997-2006

Anita Zutshi and Mary Jacob, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman; Syed G Rizvi, Sultan Qaboos University Hospital, Muscat, Oman; Priyanka Zutshi, Medical Student, Boston University, Medical School, Boston, USA.
Email: zutshi@omantel.net.om

The management of preterm and term delivery of a fetus in breech presentation is a disputable issue. The randomized controlled study, Term Breech Trial, results revealed that planned cesarean section reduces the risk of short term adverse perinatal outcomes, compared with the planned vaginal birth, with no significant differences in the long term outcome. To compare outcomes for fetuses at term and preterm singleton breech presentation delivered by assisted vaginal breech delivery or by caesarian section at Royal Hospital, Oman, a retrospective study of computer records from 1997 to 2006 from the delivery suite and obstetrical operation theatre was performed. Parameters such as maternal age, parity, gestational age at birth, birth weight, cesarean section rate, perinatal mortality rate, Apgar scores and other complications occurring during delivery were statistically analysed. Out of a total of 1,131 breech presentations at delivery in 10 years (1997–2006), 48 % had assisted breech vaginal delivery and 52 % were delivered by caesarian section. Both groups of women had similar demographic details, periods of gestation and babies' birth weight. The incidence of caesarian section amongst breech deliveries has increased in the past 10 years from 29 % in 1997 to 71 % in 2006 without significant change in the neonatal outcome in terms of Special Care Baby Unit admissions and Apgar scores. At this moment, there is not enough evidence to support cesarean section as the method of choice for delivery of preterm and term breech. The decision to deliver babies presenting by breech vaginally or by cesarean section should be individual.

Patient Satisfaction Survey - Exit Interview following Caesarean Section

Sarvasai Seema and Gazala Khan, Department of Obstetrics and Gynecology, Khoula Hospital, Muscat, Oman.

This study was carried out with the view to gauging client satisfaction after caesarean section (CS) and discover the significance of antenatal counselling. A prospective study involving 100 women with a client exit interview on day 3 or 4 of caesarean delivery was done and included women's knowledge, satisfaction and involvement in decision for current caesarean section, and their knowledge regarding its impact on future reproductive outcomes. The survey revealed 40% of these women were nulliparous. Only 34 % of women said that the possibility of CS was discussed with them antenatally and most of them were multiparas with a previous CS. Doctors informed 90% of the women about CS, while 84 % fully understood what was told them and 4% didn't understand the indication of CS. All women who had elective CS were adequately counselled regarding the reason for CS and its implications for future pregnancy, but only 26% of the total number said they had been counselled about future reproductive implications. Another startling finding was that 74% women revealed that birth spacing was not discussed. This interview was carried out on day 3 or 4 postpartum, and it is possible birth spacing was discussed later at the time of discharge. It appears from our study that most women were satisfied and understood the indication of caesarean section. Detailed debriefing regarding indications for CS, and counselling regarding the effect on future fertility needs to be strengthened in our hospitals. Training of doctors and staff nurses in the above topics and interpersonal communication skills is required in all hospitals.

Management of Multiple Pregnancies: The Royal Hospital Experience

Rahma Salim Al-Ghabshi and Noor Al-Mandhari, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman.

There is increasing interest in the outcomes of multiple pregnancies as their numbers rise, mainly owing to advances in fertility-enhancing techniques. The objectives of this retrospective study were to asses the incidence of multiple pregnancies in consanguineous marriage and to analyse complications associated with multiple pregnancies at the Royal Hospital, Muscat, Oman, during a period of 31 months from January 2000 to September 2002. The total number of cases was 173, including eight sets of triplets and one set of quadruplets. The incidence of multiple pregnancies was found to be 12.25 per 1,000 deliveries. The commonest factor of spontaneous multiple conception was a positive family history of multiple pregnancy and consanguineous marriage. Our study showed an increased incidence of complications, such as increased incidence of cesarean section rate at 47.98%, as compared with singleton pregnancy of 13-15 % in our hospital; increased mortality rate of 28.2 per 1000 live birth and increased prematurity of 30.9% (< 34 wks). In order to decrease its maternal and fetal complications, multiple pregnancies must be diagnosed early and all of them should have chorionicity determined at first scan, ideally in the first trimester. In order to meet the challenges, it is recommended that all multiple pregnancies in an individual hospital be cared for the same consultant-led team. In our community, as in similar communities in the Gulf States, the incidence of spontaneous conception is higher due to consanguineous marriage, which is not seen in other countries where the commonest cause of multiple pregnancies is ovulation induction.

Antenatal and neonatal outcomes in pregnant women with persistent glycosuria despite normal gtt

Aparna Gumma and R Ratnachalam, George Eliot Hospital, Nuneaton,UK.
Email: adgumma@yahoo.co.uk

In a retrospective audit at George Eliot Hospital, from May 2006 - May 2007, 50 patients with persistent glycosuria were identified. The majority of the patients were in the age group 20-25 yrs (36%). 32% were primigravida and 74% had BMI < 35. 8% of the patients had a previous history of gestational diabetes and family history was positive for 38%. 52% of the patients had 3 or > episodes of glycosuria. Repeat glucose tolerance test or random blood glucose was tested in 35 of the 50 patients and the result was normal. 22 % had urinary tract infections of > 2 episodes. Growth scans were performed in 40% (large for dates) and polyhydramnios was noted in 14 %. 14 % of the patients developed pregnancy-induced hypertension. The mode of delivery was by caesarian section in 56% (elective = 32%, emergency = 24%). 18% had postpartum haemorrhage and post operative infection occurred in 26%. Macrosomia was noted in 40% and neonates requiring Special Care Baby Unit admission occurred in 6 % of cases. Renal glycosuria in pregnancy is a known entity and physiological phenomenon. It was thought to be benign with no adverse effects. In our study, we noted that the antenatal outcomes are similar to that of gestational or Type 1 diabetes. Neonatal outcomes were equal to that of the non-diabetic pregnant population. It is clear that from this small study, that 'benign' renal glycosuria of pregnancy is not so 'benign', but needs to be taken seriously and measures should be taken to optimise the outcomes.

Effectiveness of self perineal care over aseptic perineal care on episiotomy wound healing

Savithri Raman, Department of Nursing, Sultan Qaboos University, College of Medicine and Health Sciences, Muscat, Oman.
Email: mmrssavithri@yahoo.com

The main objective of the study was to compare the effectiveness of self perineal care (SPC) versus aseptic perineal care (ASP). Further, the main factors such as birth weight of the baby and episiotomy length affecting episiotomy wound healing (EWH) were also analysed. A quasi-experimental, purposive sampling method was used to select 50 mothers to Group I (ASP) and Group II (SPC) with total a sample size of 100 mothers. Data were collected by a general postnatal observation rating scale and the REEDA (redness, oedema, ecchymosis, drainage, approximation) check list on episiotomy wound assessment. They were analysed using descriptive and inferential statistics. Major findings: Group I and Group II were found to be comparable in terms of age, education, gestational age, parity, obstetrical problems, duration of rupture of membrane, baby weight, length of the episiotomy wound and general postnatal health status. A significant difference was found in EWH on second and third postnatal day between mothers of Group I and Group II ($p<0.05$).The overall mean episiotomy wound score in Group I was higher than the score of Group II ($p<0.05$). This indicates the inflammatory response in Group II was less evident compared to Group I. Therefore the EWH outcome in Group II was better than the Group I. Group I and Group II had delay in EWH as the episiotomy length increased ($p<0.001$) and as the birth weight of baby increased. The study showed that SPC offers better EWH over ASP, but increased birth weight and episiotomy length delays EWH.

Knowledge and Attitudes Regarding Human Milk Donation Among Healthcare Providers

KM Girija, Department of Nursing, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman.
Email: km_girija@yahoo.com

Breast milk is a natural God-given gift of life. The American Academy of Pediatrics strongly emphasises that human milk is species specific and the optimal nutrition for infants. They recommend banked human milk (HMB) as a suitable alternative. Breast milk is often disposed of without consideration of donation because the public and health care providers are unaware of HMB and its benefits. HMB is operated under strict guidelines established by the HMB Association in Western countries. Donors are screened for safety precautions. It is imperative that healthcare providers become educated regarding HMB because it will provide human milk to preterm, sick or adopted infants who are in great need of breast milk. To assess the knowledge and attitudes towards HMB, this quantitative descriptive study was done on available healthcare providers in the Maternity and Pediatric Departments of three Baby Friendly Hospital Initiative adopted Hospitals in Kerala, India. Among 150 healthcare providers, a significant knowledge deficit regarding HMD was found (90%). Nurses' knowledge deficit related to HMB was highly significant ($p<0.001$). The overall attitude towards HMB was very good except for healthcare providers from an Islamic background, due to the religious beliefs against sharing breast milk. Healthcare providers use artificial formula in neonatal intensive care units. The breast milk from mothers who are unable to use their milk for varied reasons is not preserved although it is the most precious food for neonates and infants as HMB procedures are not established in Kerala, India. A country like India where malnutrition and infections among infants are high can very well think of establishing HMB.

Outcome of mid trimester emergency cerclage of incompetent cervix with or without bulging fetal membranes.

Sushma Dikhit, Veena Paliwal, Selvamoni Anderson, Neesha Sharma, Department of Obstetrics and Gynecology, Sultan Qaboos Hospital, Salalah, Oman.
Email: sushmadikhit@hotmail.com

To evaluate the outcome of emergency mid trimester cerclage in a dilated and/or effaced cervix with or without bulging fetal membranes, a descriptive retrospective cohort study was carried out and charts of all patients with a diagnosis of incompetent cervix in second trimester, admitted from 2003 to 2007 in SQH Salalah were reviewed. Exclusion criteria were: twin pregnancy, premature rupture of membranes, clinical signs of chorioamnionitis and vaginal bleeding. The cervical dilatation and effacement, local infection, location of bulging membranes, subsequent pregnancy duration, maternal complications and neonatal outcomes were analysed. Out of a total of 40 women included in the study, the first group of 25 women had membranes inside the cervical canal; in the other group, 15 women had bulging of membranes into the vagina as hourglass formation with dilated and effaced cervix. Preoperative cervical assessment was done by visual, digital and ultrasonological examination. All women received broad spectrum antibiotics and tocolytics at the time of cervical cerclage (McDonald technique). The emergency cerclage led to a mean 15.5 weeks (4-24) prolongation of pregnancy in Group 1 and 6.23 weeks (0-18) in Group 2. Cerclage success was significantly lower when cervical effacement was > 50% and dilatation >3cm. Overall neonatal survival was 75%, with 96% in Group 1 and 40% in Group 2. Apgar scores and weight at birth were significantly good in Group 1. Other complications were one maternal morbidity, secondary postpartum haemorrhage, two cases of chorioamnionotis and prolonged hospital stay. Favorable outcomes may be accomplished in patients with cervical incompetence in second trimester pregnancy following emergency suturing.

Polyhydramnios-risk factors and outcomes

Shabnam Saquib, Mariam Mathew, Syed G Rizvi, Sultan Qaboos University Hospital, Muscat, Oman.
Email: mathewz@omantel.net.om

This was a prospective study of all deliveries complicated with polyhydramnios in Sultan Qaboos University Hospital, Sultanate of Oman, during the period between 1 January 2005 and 30 April 2006. The objectives of the study were to determine the risk factors associated with polyhydramnios and assess the maternal and perinatal outcome in these patients. 208 women with singleton pregnancy, with amniotic fluid index (AFI) >200mm were included in the study. 2,440 women with normal AFI who delivered during this period formed the control group. Polyhydramnios was divided into mild and moderate to severe based on AFI values. Patients' demographic data, antenatal complications, gestational age at delivery, mode of delivery, postpartum complications and perinatal outcome were studied. A total of 2,648 deliveries occurred during the study period. Among these, 208 (7.8 %) had polyhydramnios: of which 179 (86.1 %) were mild and 29 (13.9 %) moderate to severe.

Mean gestational age at delivery was 38.8±1.7 weeks. Sixty-eight (32.7%) of these pregnancies were complicated with diabetes compared to 12.4% of the controls. Preterm delivery occurred in 16 (7.7%) cases. Caesarean section rate was 27.9%, compared to 17.3% in the control. Major congenital anomalies were found in 2.8% of newborns compared to 1% among the control. Eighteen babies were admitted to Special Care Baby Unit (SCBU). Diabetes in pregnancy and increasing maternal age were the main risk factors for polyhydramnios. We found a significant increase in birth weight with increasing AFI scores. Anaemia during pregnancy, fetal macrosomia, caesarean section rate and congenital anomalies were significantly higher in the study group.

Safety of induction of labour with vaginal prostaglandins (PGE2) in grand multi para

Veena Paliwal and Sushama Dikhit, Department of Obstetrics and Gynecology Sultan Qaboos Hospital, Salalah, Oman.
Email: paliwal@omantel.net.om

The aim of this two year (Jan 2004–Dec 2005) prospective study was to determine the safety of labour induction in grand multi para with vaginal prostaglandins (PGE2) and pregnancy outcomes. A total of 226 grand multi para (para>5) at 38 weeks gestational age and above, had induction of labor with PGE2 for various indications. Their outcome was compared with those of 400 women in spontaneous labour during same period with comparable variables like age and parity etc. Maternal and fetal data included age, parity, and indication for induction, Bishop score at induction, total dose of prostaglandin used and complications of the induction of labor. Other information was: length of labour; need for syntocinon augmentation; blood loss during the third stage of labor; mode of delivery; birth weight; sex; Apgar score at 1 and 5 minutes and admission to Special Care Baby Unit (SBCU) etc. Statistical analysis was done using EPI data 6. Maximum inductions were for past dates (50%). The cesarean rate was higher in the induction group: 19 % as compared to 12% in the control group. This is due to a desire for tubal ligation with caesarean for religious beliefs and maternal request ($p < .05$). There were no significant differences in fetal outcomes in terms of meconium aspiration, Apgar score and admission to SCBU. There were no serious maternal complications like infection, uterine hypertonus or rupture. Induction of labor with vaginal prostaglandins (E2) in grand multipara is a safe and acceptable method of induction. We recommend a large multicentric randomised coutrol trial to validate these observations.

Periodontal Disease and Gingivitis as a possible Risk Factor for Preterm Labour and Birth

Neesha Sharma and Veena Paliwal, Department of Obstetrics and Gynecology, Sultan Qaboos Hospital, Salalah, Oman.
Email: paliwal@omantel.net.om

The objective of this study was to explore periodental disease as a risk factor for preterm labour and birth (PTB). A prospective observational study was undertaken over a period of six months from March to August 2007. Cases of PTB and labour at SQH, Salalah, were studied for oral hygiene, a pro-forma was made and data collection is going on. Until now 50 cases of preterm labour and birth have been studied with promising results. There is good correlation between poor oral dental hygiene (ODH) and preterm birth. As per various recent studies and meta-analysis there is good evidence of poor pregnancy outcome in patients with poor ODH. Our preliminary data also supports this hypothesis. Preterm birth is a financial burden on health resources, family and community. Therefore every effort should be made to prevent PTB by setting up dedicated clinics to identify the women at increased risk and intervene to reduce the incidence of PTB. PTB due to infection (c. 47%) is a preventable factor. Good oral hygiene is certainly an inexpensive tool in preventing infective etiology of PTB.

Rare Cause Of intrauterine Death - Abnormal Umbilical Cord Coiling

Sanjay S Curpad and KAB Asaad, Prince Charles Hospital, North Glamorgan NHS Trust, UK.
Email: scurpad@yahoo.com

A 20 year primigravida was referred to the day assessment unit with a history of absent fetal movements. On examination, the uterus was corresponding to the period of gestation and non tender. Fetal heart sounds were not located with Doppler imaging and intrauterine death was confirmed by ultrasound examination. Induction of labour with mifepristone and misopristol was uneventful and she delivered a macerated still born baby weighing 500 grams. Post delivery recovery was uneventful. Post delivery investigations were normal; the postmortem examination showed a 25 week fetus with borderline intrauterine growth restriction (IUGR), birth weight being third centile, with no congenital anomalies identified. The umbilical cord showed increased cord coiling (0.5/cm) with narrowing at fetal end. Umbilical cord coiling is a normal process of development of the umbilical cord. The origin is unknown; hypotheses include fetal movements, differential umbilical vascular growth rates, fetal haemodynamic forces and muscle fibres in the arterial wall. Normal cord coiling index is 0.17(+/-0.009) spirals per centimeter. Abnormal cord coiling is associated with adverse pregnancy outcomes. Hypercoiling is associated with IUGR, intrapartum fetal heart decelerations, thrombosis and cord stenosis. Hypocoiling of the cord is associated with increased incidence of fetal demise, operative deliveries for fetal distress, anatomic and karyotypic abnormalities and proneness to chorioamnionitis. The coiling index is best identified in the second trimester and reflects true coiling of the cord as identified by pathological examination. The identification of the hyper/hypo coiling of the cord in the second trimester will identify high risk pregnancies which may benefit from increased surveillance in the antenatal and intrapartum periods.

Pregnancy in women with cardiac valve replacement - a management Challenge

Chitra Jha and Majida Al Irhayim, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman.
Email: amitabh@omantel.net.com

Pregnancies in patients with prosthetic cardiac valves carry a high risk associated with cardiac disease as well as the risk of medications and anticoagulants. A retrospective review of the pregnancies with cardiac valve replacement, managed at Royal Hospital during the past 10 years was carried out. The course of pregnancy, outcome, maternal, fetal morbidity and mortality were studied and followed up in detail in 40 patients through 111 pregnancies. The type and the site of valve replacement and choice of anticoagulant were noted. The protocol and guidelines of management of these pregnancies antenatally, intra and postpartum at our institution is presented. The incidence of cardiac valve replacement was about 10% of all cardiac disease in pregnancy. The incidence of congenital anomalies while continuing warfarin through out

pregnancy was not more than the background risk, though the incidence of miscarriages was higher. The risk of complications did not depend upon the dose of warfarin.

Retrospective analysis of cervical cerclage and outcome of pregnancy 2000-2005: Royal Hospital, OMAN, Experience

Kanchana Rajan and Chitra Jha, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman.

The outcomes of pregnancy following cervical cerclage were studied. 308 cases of cervical cerclage performed over a period of 5 years from 2000 to 2005 in the Division of Obstetrics and Gynecology of the Royal Hospital were analysed retrospectively by reviewing the case records, operation notes and delivery notes. The history, period of gestation, risk factors, digital examination and ultrasound examination were analysed. The operative findings of individual cases were reviewed and the delivery notes of each patient for outcome were analysed. The cerclages were categorized retrospectively into three groups namely: elective, urgent and emergency cerclage and the maternal morbidity and fetal outcomes were studied. Over 21 cases of emergency cerclages performed during this period were analysed individually and the outcome discussed. A case of recurrent miscarriage due to uterus didelphys and successful pregnancy and delivery after abdominal cerclage is presented. An audit into record keeping, guidelines for future evaluation, classification, and counseling is discussed in detail.

Judicious Promotion Of Vaginal Birth After caesarean section (vbac) can counter rising caesarean section (cs) rates

Archna Mohan, Pooja Vaswani, Selvi Anderson, Indu Jonathan, Sultan Qaboos Hospital, Salalah, Oman.
Email: rayofhope254@yahoo.com

To study the trend of mode of delivery and outcome in patients with previous one caesarian section (CS) and to plan a strategy for future reductions of CS rates, a retrospective study was done from January 2005 to September 2007 (33 months) in SQH, Salalah. A total of 1,072 females with a history of previous one CS were analysed for mode of delivery in their current pregnancy; indication of first and repeat CS; gestation; induced or spontaneous labour; maternal BMI; previous vaginal birth; fetal weight; maternal complications and fetal outcome. A total of 90.33% of females attempted vaginal birth after caesarian section (VBAC), and 54% had a vaginal birth. The most common indication for repeat elective CS was failed induction, followed by malpresentation and fetal macrosomia; in emergency CS, it was non progress of labour followed by fetal distress and scar tenderness. One patient had a ruptured uterus with a ruptured urinary bladder at 34 weeks of gestation and another patient had a subtotal abdominal hysterectomy for placenta previa increta. Two patients had scar dehiscence after successful vaginal delivery and one had a haematoma at a previous uterine scar site. In scar tenderness only 0.02% had scar dehiscence/rupture. Judicious promotion of VBAC is a reasonable strategy to counter the rising CS rates as it has vast effect on cost saving and greater patient satisfaction with less maternal morbidity. With careful selection and monitoring, most of the cases can be delivered successfully vaginally. Overdiagnosis of scar dehiscence needs to be re-evaluated and the involvement of a consultant for decision making can help in reducing CS rates.

Conservative Management of Placenta Accreta – A case report

Veena Paliwal and Selvamoni Anderson, Department of Obstetrics and Gynecology, Sultan Qaboos Hospital, Salalah, Oman.
Email: veena_paliwal3@yahoo.com

Recent increase in the incidence of placenta accreta has led to widespread awareness of preoperative evaluation and planned management. A conservative approach can minimize complications and preserve fertility in selected cases. A 36 yrs old, gravida 6 para 4+1, visited Sultan Qaboos Hospital for the first time in this pregnancy at 27 weeks of gestation. She was diagnosed to have central placenta previa and placenta accreta with previous four cesarean sections. Emergency CS with bilateral tubal ligation was done at 33 wks of gestation for antepartum haemorrhage under general anesthetic. During the operation, the lower segment was highly vascular and had extensive pelvic adhesions. A female baby of 1.480 kg in good condition was delivered by high transverse incision in the uterus. The placenta was completely adherent to the uterine wall and bladder area with distorted anatomy; it was left in situ. Intra-operative bleeding was controlled with bilateral uterine artery ligation and multiple haemostatic sutures in the uterus. The patient was kept under close observation in view of the risk of infection and haemorrhage. Methotrexate 50 mg/m2 (85mg) IMI on D15 with folinic acid next day (34mg IVI), second dose on D20. At 6 weeks postpartum, asymptomatic, she had a periuterine arteries embolisation followed by cervical dilatation and partial evacuation of placenta in the United Arab Emirates. The patient had multiple blood transfusions. At present she is having normal periods. In this patient, we were able to save the uterus as she was not willing to have a hysterectomy. A high index of suspicion in high risk cases with great vigilance and restricting primary caesarean rates will go a long way in protecting patients from these complications.

Effect of Maternal intravenous amino acid infusion in cases of intrauterine growth retardation

Meenakshi B Chauhan and Suman Kohli, Department of Obstetrics and Gynecology, Postgraduate Institute of Medical Sciences, Rohtak, Haryana, India.
Email: mbc51490@yahoo.co.in

To assess the effect of amino acid infusion on fetal outcome, in cases of intrauterine growth restriction (IUGR), 50 pregnant women with IUGR were alternately assigned to one of two groups. Group A received 200 cc each of a total of 7 intravenous amino acid infusions on alternate days for 14 days. Group B was managed only with bed rest and a good diet. Patients were followed up till delivery. Parental outcome was noted and results were compared in the two group statistically applying the t-test. After amino acid infusion there was a mean increase in maternal weight, symphisiofundal height; estimated baby weight and amniotic fluid index and a decrease in the systolic/diastolic ratio on Doppler study. The mean birth weight was higher and complication rate was less in neonates in the study group. The maternal amino acid infusion in the case of pregnancies complicated by mild IUGR thus resulted in a significant improvement in overall parental outcomes.

Use of Sulprostone in the termination of second trimester miscarriage and intrauterine fetal death - SQUH experience.

Anita K Mohan and Mariam Mathew, Department of Obstetrics and Gynecology, Sultan Qaboos University Hospital, Oman; SG Rizvi, Department of Family Medicine and Public Health, College of Medicine and Health Sciences, Sultan Qaboos University, Oman.
Email: mathewz@omantel.net.om

To study the efficacy and safety of sulprostone (PGE2 analogue) in the termination of second trimester miscarriages and intrauterine fetal death (IUFD), a retrospective study was conducted in the Department of Obstetrics and Gynecology, Sultan Qaboos University Hospital, Sultanate of Oman, between January 2000 and December 2005. Ninety seven women with 12 to 30 weeks gestation were included in this study. Sulprostone was started as an intravenous infusion of 15µgm/hr and titrated to a maximum of 250µgm/hr to a total dose of 1500µgm/day. The patients' demographic data; gestational age; induction-abortion interval; side effects; complications and the need for evacuation were studied. Out of 97 women who received sulprostone, 90 aborted/delivered within 24 hours. The average induction-abortion interval was 11.9±8.0hours. Sulprostone was associated with few side effects and was well tolerated by patients. Although most of the patients required evacuation and curettage, the blood loss was minimal. Only six out of 97 women required a blood transfusion and two needed a hysterotomy. We found sulprostone as an efficient drug for termination of second trimester miscarriage and IUFD.

Histocytosis x and Pregnancy: a case report

Khalsa Al-Hattali and Majida Al-Irhayim, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman.
Email: alirhayim@yahoo.com

Histocytosis is a rare disease which usually manifests in children and young adults. The origin of the disease is believed to be inflammatory rather than neoplastic. It is characterized by proliferation of reticuloendothelial cells in various organs. Our case is a 28 year old female diagnosed with histocytosis x and diabetes insipidus at the age of 20. She had exophthalmos and sub-acute cerebellar syndrome. She was on desmopressin as a result of her condition. Wheel chair bound, due to gait unsteadiness, the patient had bilateral nystagmus, bilateral pyramidal signs and mild trunkal ataxia. Her MRI report revealed demylinating-like lesions in the globus pallidus, thalami and cerebellar hemispheres. After diagnosis of this disease, the patient has conceived twice. She was followed up by a neurologist, an endocrinologist and an obstetrician. There were no major problems during pregnancy apart from fetal growth restriction. She had a normal vaginal delivery in both pregnancies, both with low birth weight 2.1kg and 2.2 kg. Neither of the babies needed special care and they are currently alive and well. Following the second delivery, the patient developed hypotension which was managed with desmopressin and intravenous fluids. The patient has since been discharged and is at home and doing well. To the best of our knowledge, there has only been one case reported with histocytosis x that has resulted in a successful pregnancy.

Diabetic pregnancy and maternal vitamin D status

Lisa Campbell and KJ Erkine, Homerton University Hospital, London, UK.
Email: lisacampbell73@hotmail.co.uk

Diabetes is becoming more common in women of child bearing age and diabetic pregnancies are high risk. The role of vitamin D in the reproductive system is uncertain. Increasing evidence suggests that pregnancy is associated with vitamin D hypovitaminosis and that this in turn can predispose a woman to diabetes. Furthermore, vitamin D hypovitaminosis is itself associated with various poor pregnancy outcomes. We investigated the effect of diabetes during pregnancy on maternal vitamin D status. In a longitudinal study, two cohorts of pregnant women, 155 non-diabetic and 90 diabetic were followed up in a university teaching hospital in London, UK. Serial Vitamin D blood samples were taken at booking, 26 weeks and 34 weeks of gestation in non-diabetic women and at booking and at monthly intervals thereafter in diabetic women over a 15 month period (April 2006 to May 2007). At the same time glycosylated haemoglobin [HbA1C] and fructosamine, measures of glycaemic control, were measured. Ethnicity, age and type of diabetes of the women were characterized. Birth weight was recorded. 46/90 (52%) of diabetic mothers were vitamin D deficient at some point during their pregnancy compared to 61/155 (39%) non diabetic mothers (p value < 0.05). Diabetic women were twice as likely (95%, CI: 1.3 - 5.3) to have a vitamin D level below 24 nmol/L than non-diabetic women. Compared to Caucasian mothers, the odds of a vitamin D level below 24 nmol/L were far higher in black (OR 2.2 95% CI: 1.1 - 4.4) and Asian women (OR 17.4 95%, CI: 6.2 - 48.7).

Audit of Thyroid Disorders in Pregnancy

Anita Nargund, U Kiran, LS Gokhale, Royal Gwent Hospital, Newport, UK.
Email: anitamn73@yahoo.co.uk

This is a retrospective audit of 30 cases done at the Royal Gwent Hospital, from June 2006 to May 2007. The aim of our audit was to confirm compliance with the management of thyroid disorders in pregnancy and their outcome. Standards are: multi-disciplinary management, a booking plan to be written in detail about thyroid function tests (TFT) done in each trimester/monthly if newly diagnosed; repeat TFTs in 4-6 weeks after dose alteration and repeat TFTs in 6-8 weeks postnatal. Thyroid antibodies testing; in hyperthyroid propylthiouracil (PTU) should be used. Maintain euthyroid levels and thyroid stimulating hormone at lower limit of normal, T3 at upper limit of normal. (Handbook of Obstetrics Medicine by Catherine Nelson-Piercy) We collected 27 hypothyroid cases and 3 hyperthyroid cases. Our results are: multidisciplinary management - 63%, booking plan written - 8 cases, TFTs in each trimester - 97%, thyroid antibodies - 33%; PTU used in all 3 hyperthyroid cases; repeat TFTs in 4-6 weeks after dose alteration - 100%; postnatal TFTs - 67%. Our recommendations were to have a standard trust protocol, to write the plan in the booking clinic; antenatal thyroid antibodies testing; repeat TFTs postnatal; and reaudit in 6 months.

Heart Disease in Pregnancy

Chitra Jha and Majida Al Irhayim, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman.
Email: amitabh@omantel.net.om

Cardiac disease is an uncommon but potentially serious medical complication of pregnancy. The reported incidence is 0.3 to 3.5%. To review in detail the pregnancies in women with heart disease, attending the 'Cardiac Disease in Pregnancy' clinic under the Department of Obstetrics and Gynecology Royal Hospital, over the last 6 years, a retrospective study was done from Jan 2001 to Dec 2006. All patients were classified into low, medium and high risk groups depending upon the severity of their disease. 505 patients attended the clinic during this period. Besides other congenital and acquired disorders, 35 of these had a prosthetic valve and were followed through 71 pregnancies. 17 patients were in the high risk group with cardiomyopathy and 3 women had been diagnosed to have a myocardial infarction in the past. The incidence, age, parity, outcome and maternal or fetal morbidity and mortality were studied in these patients. Those patients with a prosthetic heart valve were studied in greater detail over a 10 year period. The incidence of cardiac disease in pregnant women in our population is just over 1%, which is comparable to world wide figures. The incidence of pregnancies in women with cardiac valve replacements and those with cardiomyopathies is higher, probably because of increase in multiparity and pregnancies in the older age group. There was no significant maternal mortality or morbidity. Pregnancy outcome can be improved with proper counselling and assessment of risks. Close obstetric and medical surveillance is required through out pregnancy. Early identification and prompt correction of aggravating factors such as anaemia, infection, hypertension and arrhythmias is important.

Cardiomyopathy In pregnancy

Khalsa Al-Hattali and Majida Al-Irhyim, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman.
Email: alirhayim@yahoo.com

Peripartum cardiomyopathy with high risk of morbidity and mortality is a subset of dilated cardiomyopathy with unknown etiology. The incidence highest is in Haiti with 1:300 pregnancies and the lowest in the USA: 1:1300-1500. Risk factors are increasing maternal age, multiparity, hypertension and multiple pregnancies. Maternal complications include heart failure, arrhythmias and thromboembolic complications. Reported maternal mortality is 4% - 80%. Fetal morbidity is due to iatrogenic prematurity and intrauterine growth restriction secondary to hypoxia. The objective of our study was to assess the maternal and fetal outcomes in a retrospective data analysis of all patients with cardiomyopathy between 2001-2007 at the Cardiac Disease with Pregnancy Clinic (Wattayah Polyclinic), the Cardiac Clinic (The Royal Hospital) and emergency admissions to the Royal Hospital. Out of a total of 16 patients, 3 were under 30 years, 7 between 31-40 years and 6 between 41-45 years. Most common, fifteen of the 16 patients had dilated cardiomyopathy with 7 peripartum cardiomyopathy. The severity of the condition was determined by the echocardiographic (ECHO) findings. There were 8 patients with severe left ventricular dysfunction (ejection fraction 15-20%), 4 patients with moderate impairment of left ventricular function and 4 with mild impairment. All patients with severe cardiomyopathy were delivered by caesarean section; out of these three were delivered at 32-33 weeks. In this series, 2 patients had pulmonary oedema and one patient died 3 days after delivery with left ventricular fibrillation. Fetal morbidity was mainly due to prematurity, as 3 babies were delivered at 32-33 weeks, one of which with severe intrauterine growth restriction. Pregnancy was well tolerated in the majority of the patients, showing no difference in parity. Maternal mortality was 5%; however, the fetal outcome was good. Early anticipation of complications through proper diagnoses and close maternal and fetal surveillance is essential to reduce maternal and fetal morbidity and mortality.

Comparative Evaluation Of Sublingual Misoprostol With Intravenous Methergin For Prevention Of Postpartum Haemorrhage

Pushpa Dahiya, Oman Medical College, Sohar Campus, Oman; Meenakshi Chauhan Postgraduate Institute of Medical Sciences, Rohtak, Haryana, India.
Email: pushpadahiya@yahoo.com

The aim of this study was to compare the efficacy of sublingual misoprostol with intravenous methergin for prevention of postpartum haemorrhage. One hundred and sixty women undergoing vaginal deliveries were randomly divided into 2 groups. Group 1 (n = 80) received tablets of misoprostol 200ug sublingually and Group 2 (n = 80) received an injection of methergin 0.2 mg intravenously at the time of delivery of the anterior shoulder of the baby. The duration of the third stage; the amount of blood loss; mean post delivery drop in haemoglobin; side effects and complications of drugs were compared in the two groups and statistically analysed. All the parameters were found comparable in the two groups and there was no statistical difference between them. Misoprostol was found to have the advantage of easy storage, administration and was cheaper. Sublingual misoprostol appears to be a promising drug in minimizing the blood loss during delivery, easy to store and simple to use and the low cost of the drug can be advantageous in developing countries where home deliveries are quite common.

Obstetrician's nightmare! - Peripartum acute Aortic dissection: a case report and preventive strategies

Vidya Kishore and Meena Kothari, Department of Obstetrics and Gynaecology, Royal Hospital, Muscat, Oman.
Email: kkshetty@omantel.net.om

We report a case of acute postpartum aortic dissection in a 32 yr old, para 2, requiring emergency vascular surgery. Acute aortic dissection during pregnancy is a sudden catastrophic event with can be devastating for both mother and fetus with reported mortality of 1% per hour in untreated cases. We discuss the clinico-pathological features of acute aortic dissection and review the literature concerning the management of peripartum aortic dissection. The purpose of this report is to remind obstetricians and acute care physicians that, although rare, acute dissection can present in pregnancy as a life threatening emergency masquerading as a host of clinical conditions. The success in salvaging the patient depends on the prompt diagnosis and initiation of early treatment, for which a high degree of suspicion is needed, reinforcing the fact that 'the eye cannot see what the mind does not know'.

Velamentous insertion of cord causing discordant growth in monochorionic twin pregnancy

Devyani Narayan, Department of Obstetrician and Gynaecology, Khoula Hospital, Muscat, Oman.
Email: devnaryn@omantel.net.om

Discordant growth in twins contributes significantly to rates of perinatal morbidity and mortality. These rates vary according to chorionicity, timing of onset, and severity. Abnormal umbilical cord insertion (UCI) is a common finding in twins, more so in monochorionic twins and this is also associated with twin-to-twin transfusion syndrome (TTT). Ultrasound identification of abnormal UCI is reliable and should be undertaken during the evaluation of twins especially in cases where monochorionic diamniotic twins are suspected. In this group, the risk of birth weight discordancy in those with velamentous insertion is nearly 50%. Although this is not amenable to intervention, its presence or absence warrants appropriate patient counselling and close surveillance of fetal growth. We present a case of monochorionic twin pregnancy with discordant growth due to velamentous insertion of cord which was not associated with TTT. The details of ultrasonography (USG) and monitoring of this high risk pregnancy and the outcome of both the fetuses are described in detail.

Headache: A Common Symptom but uncommon pathology in Pregnancy

J Kankanala, Royal Victoria Infirmary, Newcastle, UK.
Email: jyoti.kankanala@gmail.com

Neurological disorders are common in women of childbearing age and can lead to maternal death, as evident from previous reports of the Confidential Enquiry into Maternal Deaths in England and Wales. Idiopathic intracranial hypertension (pseudo tumour cerebri) is a condition that occurs predominantly in obese women. We report a case of a 32 year old Caucasian primiparous woman who presented with visual complaints during her gestational period. Following complete investigations, a diagnosis of benign intracranial hypertension was made. She was managed conservatively with serial lumbar punctures and cerebrospinal fluid drainage. The patient not only improved neurologically, but was able to continue her pregnancy till term until delivery by elective lower segment caesarean section under subarachnoid block. Diagnosis, management, and pregnancy outcome of this active disease are discussed. Pregnancy is not contraindicated in women with benign intracranial hypertension and termination of pregnancy is seldom required.

Metastatic malignant melanoma during pregnancy - a case report

Mariam Mathew, Shahila Tazneem, Kuntal Rao, Ikram A Burney, Azhar Rizvi, Sukpal Sawhney, Fatma Ai Ramadani, Sultan Qaboos University Hospital, Muscat, Oman.
Email: mathewz@omantel.net.om

We report a case of metastatic malignant melanoma diagnosed in the second trimester of pregnancy. A 28 yr old gravida 2 para 1 at 27 weeks gestation, diagnosed to have metastatic malignant melanoma, was referred to us for further management. She had initially presented with left inguinal lymphadenopathy at 16 weeks of gestation for which she was treated with antibiotics and referred to a surgeon as there was no relief. Core biopsy from the inguinal lymph node and immunohistochemistry revealed a malignant melanoma showing positive staining with S-100 and HMB 45. After initial evaluation, labour was induced resulting in a male baby weighing 1.310 kg. The placenta was free of metastasis. There were no signs of the disease in the newborn. Metastatic workup after delivery revealed extensive involvement of lungs, liver, spleen, and both breasts with melanoma. Patient was started on combination chemotherapy with cisplatin, vinblastine and dacarbazine. Malignant melanoma is the most dangerous form of skin cancer and the progression can be very rapid as in our case. Our patient had a successful labour induction soon after attaining fetal viability and the chemotherapy was started without delay. Treatment of early stage melanoma should be the same irrespective of whether or not the patient is pregnant. There is no conclusive evidence that pregnancy adversely affects overall survival in patients with melanoma.

Ovarian cyst in Pregnancy - A Review of cases

Meenakshi Yelvantge and Usha Sharma, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman.
Email: y_manoj@hotmail.com

The routine use of ultrasound in pregnancy has been able to diagnose asymptomatic adnexal masses in pregnancy. The incidence of detection of ovarian cyst in pregnancy is about 4 % and 0.5 % during caesarean section. Nearly all the ovarian masses detected in pregnancy are benign, but the overall incidence of ovarian cancer is 0.004-0.04 %. Most of these malignant masses appear to be borderline with low malignant potential. These cysts pose diagnostic difficulties in differentiating between benign and malignancy. CA-125 levels can be helpful, but levels may be increased by pregnancy itself. Suggestions are being made to take a cut off level of 112 U/ml instead of 35 U/ml as in non-pregnant patients. Other tumour markers like Alpha-fetoprotein (AFP) and beta human chorionic gonadotropin (hCG) levels are of limited use, since these are synthesised by the placenta and are normally elevated in pregnancy. MRI can be safely used, but is expensive. It has good sensitivity in diagnosing endometriotic, dermoid and malignant tumours. Cost, claustrophobia and excessive fetal movements are the limiting factors for MRI. A few interesting cases that were diagnosed either during pregnancy or intrapartum and were removed during caesarean section are discussed.

Prediction/Prevention and Treatment of Preterm Labour

Radha Sharma and Pamela Issac, Department of Obstetrics and Gynecology, Sur Hospital, Oman.
Email: sksur@omantel.net.om

In a prospective study from Oman April 2004 to April 2005, 100 pregnant women at high risk of preterm birth (PTB) in the South Sharqiya Region, were followed with the objective to create awareness among the health care providers and clients about the problem of PTB and possible preventive measures available, to identify the high risk group for PTB and to take early precautionary measures and/or give specific treatment to improve the outcome. Criteria for high-risk cases of PTB were identified and details were recorded in a pro forma. Follow up included infection screening and 2 weekly cervical assessments from 14-24 weeks by transvaginal sonography (TVS). Treatment for infection for positive

cases and cervical cerclage was done when indicated as per the criteria. The incidence of preterm delivery (PTD) was 16.8% with previous mid-trimester abortion in 33.3% of cases and previous PTB in 20.9%. 75% were 18-35 years old, and 25% were >35 years. Infection screening was done (75% cases), but results were not conclusive. Cervical assessment by transvaginal sonography (TVS) was done in 84.2% and cervical cerclage done in 21.3% cases; out of these 15.8% delivered preterm. Among the previous cervical cerclage cases, repeat cerclage was not done in 78.9% out of these; only 8.5% delivered preterm. Among the PTD cases, 40% received short term tocolysis, 46.6% received steroid for fetal lung maturity, 40% received antibiotics. 73.3% were of 32-36 weeks and 1% < 28 week. 26.6% required Special Care Baby Unit admission and all babies were discharged in good condition. There was one still birth due to an anomaly, but there were no intrapartum or neonatal deaths. Cervical assessment by TVS in high risk cases and secondary cerclage, if indicated, is a good preventive measure. Early reporting with warning signs and symptoms of preterm labour (PTL) will help in early detection of threatened PTL/early preterm labour so that specific therapy can be started to improve the neonatal outcome.

Prenatally diagnosed congenital cardiac malformations – Experience at wattayah polyclinic, Oman

Megha Venkatraman, Khoula Hospital, Muscat, Oman.

The aim of this study was to review the diagnostic accuracy of fetal echocardiography, to review the association with extracardiac structural anomalies and evaluate the outcome of the pregnancy. This is a retrospective study reviewing all pregnancies complicated by fetal cardiac anomaly between January 2003 and June 2007 at Khoula Hospital, Oman. Congenital cardiac malformations comprised about 18% of the major anomalies seen during this period. These fetuses were classified into two groups – those with isolated congenital heart defects and those with associated extracardiac anomalies. The end points studied included chromosomal abnormality, correlation between the antenatal and postnatal findings and pregnancy outcome. The data confirm previous findings in a prenatal diagnosis series that the prognosis for fetal heart malformation depends on the type of lesion identified and the presence or absence of extracardiac anomalies. An associated extracardiac structural anomaly worsens the prognosis. Results also suggest that a carefully performed detail fetal echocardiography can be highly accurate.

Damage control surgery in Obstetrics-Gynaecology and General Surgical Practice: Khoula Hospital Oman's Experience of 50 Cases.

Mohsin Raza, Yasser Abbas, Kameel Rizk, Department of General Surgery, Khoula Hospital, Muscat, Oman.

Damage control surgery is defined as the termination of surgical procedures after rapid control of life-threatening haemorrhage and contamination, followed by correction of physiologic abnormalities and a definitive management later. This strategy comprises of a staged approach for severely exanguinating patients and is designed to prevent or correct the lethal triad of hypothermia, acidosis, and coagulopathy. During the first stage of damage control, the haemorrhage is stopped, and contamination is controlled using the simplest and most rapid means available. Temporary wound closure methods are employed. The second stage is characterized by correction of physiologic abnormalities in the intensive care unit (ICU). Patients are warmed and resuscitated and coagulation defects are corrected. In the final phase of damage control, definitive operative management is completed in a stable patient. Many problems are encountered in abdominal, pelvic and trauma surgery. The application of damage control techniques in this context, however, is contentious. Possible indications for damage control in the general surgical setting include haemodynamic instability from massive haemorrhage, coagulopathy, abdominal compartment syndrome, acute mesenteric ischemia, necrotizing infections. Patients with pelvic bleeding after gynaecologic surgery, abdominoperineal resection and pelvic fracture can be managed successfully by damage control surgery principles. We have reviewed our experience of 50 patients at Khoula Hospital with damage control surgery and will present our technique and results. A total mortality of 16% with zero mortality in obstetrics-gynaecology patients was observed.

Colposcopy, cytology and histopathology in the diagnosis of cervical intra-epithelial neoplasias

Amal Al Fana and Shahnaz Wasti, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman.
Email: aloud82@yahoo.com

Papanicolaou (PAP) cervical cytology screening is one of the great success stories in modern medicine. Since its implementation in the 1950s, routine PAP screening has helped to reduce cervical cancer mortality by more than 70%. The very success of PAP screening has fostered an unrealistic expectation that PAP testing is perfect. In reality, the sensitivity of PAP cytology for high-grade cervical intraepithelial neoplasia (CIN) is only about 70-80 %. In defining the diagnostic accuracy of colposcopy, the histopathological diagnosis is the gold standard. Eventually, the combined use of cytology, colposcopy, and histopathology was thought to secure the highest yield of detection of cervical neoplasia.

The objective of this study was to assess the correlation between cervical cytology, colposcopy findings and histopathology diagnosis in women with abnormal cervical cytology. This was a prospective study of 100 women with abnormal cervical cytology who attended the colposcopy clinic at the Royal Hospital, Oman. All these women had colposcopy and colposcopy directed biopsy. The histopathology was considered as the gold standard for comparison of cytology and colposcopy findings. Out of the hundred cases with abnormal cervical cytology, 45 had CIN I, 24 had CIN II and 5 had CIN III. Colposcopy showed 63 cases of CIN I, 27 Cases of CIN II-III and 1 case of squamous cell carcinoma. Histopathology confirmed CIN I in 52 women and CIN II-III in 19 women. Colposcopy has higher sensitivity, specificity and positive predictive value when compared to cytology in the diagnosis of precancerous lesions of cervix with histopathology as the gold standard.

Doppler determinants in Ovarian Tumour

Manjula Dinakar, Veena Paliwal, Neesha Sharma, Department of Obstetrics and Gynecology and Radiology, Sultan Qaboos Hospital, Salalah, Oman.
Email: arudhiman@yahoo.co.in

The study was aimed at evaluating the efficacy of colour and spectral Doppler imaging in diagnosing ovarian tumours. The study was performed in 100 patients with adnexal masses over a period of 2 years, out of which 60 patients with neoplastic ovarian tumours were retained as the study subjects. B-mode ultrasonography (USG) was done along with colour Doppler which showed blood flow in 92.59 percent of malignant tumours in contrast to only 42.24 per cent of benign tumours. Absent blood flow in a solid tumour almost always ruled out the possibility of malignancy. Spectral Doppler was also done. Malignant tumors had a (pulsatility index) PI of less than 0.8. Similarly, malignant tumors showed an PI of less than 0.6i. Thus, colour Doppler and spectral Doppler tremendously increased the reliability in diagnosing malignant ovarian tumours. Colour Doppler serves as an important tool to rule out malignancy in solid tumours if they failed to show any intra tumoural vascularity. B-Mode USG in combination with colour Doppler and spectral Doppler are proposed as the first and foremost diagnostic modality in patients with ovarian tumour, so as to establish the diagnosis of malignancy early in the course of the disease.

Definition, Role and Core Values of Reproductive Health Nurses

Jothi Clara J, Nursing Program, Sultan Qaboos University, Muscat, Oman.
Email: jothiclara@yahoo.co.in

The reproductive health status of individuals is the backbone of health of any country. Ever since the concept of reproductive health was put forward at the International Conference on Population and Development, the debate has remained as to where its boundary lies; however, the goals remains clear: preventing and treating reproductive diseases supporting normal functioning such as pregnancy and child birth, and aid in fertility, when the couple desires to have a child. For any country, investment in reproductive health brings benefit for young people and adults of today and the infants and children of tomorrow. Reproductive health nurses are nurses with a specialised qualification who render specific reproductive care. These nurses are an essential member of the health team in all settings: hospital or health centre or community. They many times serve as the first hand health information provider and identifiers of health related problems and refer patients to appropriate health teams. This paper presents a definition of the reproductive health nurse; explains preventive, promotive, supportive, educative, rehabilitative and extended roles; and highlights the core values of the reproductive health nurse in relation specific to philosophy, education, ethics, theories, research, communication, counselling, the therapeutic environment, cultural diversity and the nursing process.

Vaginal evisceration – A rare complication of hysterectomy

Anita M Nargund and Mr El Hamamy, Royal Gwent Hospital, Newport, UK
Email: anitamn73@yahoo.co.uk

A 47 year woman presented to the Gynaecology Emergency Department of Royal Gwent Hospital, UK, with a history of vague lower abdominal pain and something coming out through the vagina. This was sudden in onset and occurred when she was straining to pass the urine. She had had a total abdominal hysterectomy for cervical fibroid and menorrhagia 10 weeks before. On examination, the patient was apyrexial, with normal vital signs. Abdominal examination was normal, local genital examination revealed the sigmoid colon and omentum lying outside the introitus. This is a surgical emergency having a high morbidity with 15% of the patients having postoperative complications and 20% of the patients requiring bowel resection. This rare complication is more common following a vaginal hysterectomy rather than a abdominal hysterectomy. Vaginal evisceration after vaginal hysterectomy followed mostly after a period of increased abdominal pressure such as coughing or straining; the next most common cause was following intercourse. The most common precipitating factor following abdominal hysterectomy is sexual intercourse followed by trauma, increased abdominal pressure or infection. Vaginal evisceration is a rare complication of hysterectomy either abdominal or vaginal which is potentially life threatening and requires early identification and prompt management to avoid serious morbidity and mortality. This rare complication may occur in both pre- and postmenopausal women though the etiology in them is different. The ideal management is surgical, but is to be individualised to the patient depending on the presentation and the clinical picture.

Case report of Vulval papillary hidradenoma in teenage girl with Klippel-Trenaunay-Weber syndrome

Atiqa Al Harthy and Anita Zutshi, Division of Obstetrics and Gynecology, Royal Hospital, Ministry of Health, Oman.
Email: zutshi@omantel.net.com

We report a rare case of Klippel-Trenaunay-Weber syndrome (KTWS) with vulval papillary hidradenoma tumours in a 14 year old girl. She had painless left labial swelling of nine months which increased in size gradually. Unfortunately, this young girl had to undergo below knee amputation of both legs due to lower limb gigantism in 2003 at ther age of 11 years. She had abdominal and chest wall lipomas measuring 6x6cm and 5x5 cm. The two left labial swellings were firm, non tender, measuring 4x3cm and 2x2 cm covered with labial skin which was mobile on the tumour. The left labial tumours were excised under general anaesthetic in July 2007 and the labia were reconstructed. Histopathology report was vulval-papillary hidradenoma with no evidence of malignancy in the sections examined. Most cases of KTWS are sporadic. Most patient demonstrate all three signs of the clinical syndrome: a distinctive port-wine stain with sharp borders; varicose veins; hypertrophy of bony and soft tissues that may lead to local gigantism or shrinking (occasionally) as in our case. KTWS generally affects a single extremity, although cases of multiple affected limbs have been reported like in this case. The legs are the most common site. It is not believed to be genetic in nature, although testing is ongoing. Debulking has been the most widely used treatment for the syndrome, and has been used for decades. A papillary hidradenoma is a benign, small, sharply circumscribed nodule arising from the apocrine sweat glands, covered by normal skin. It is often seen in the labia majora, or interlabial folds; it may ulcerate through the skin and simulate carcinoma.

Effect of estrogen and tibolone on serum lipid profile in postmenopausal women

Meenakshi B Chauhan, Smiti Nanda, H Mehta, Department of Obstetrics and Gynecology, Postgraduate Institute of Medical Sciences, Rohtak-124001, Haryana, India.
Email: mbc51490@yahoo.co.in

The objective of the study was to evaluate the effects of estrogen and tibolone on serum lipid profile in postmenopausal women. Sixty post menopausal women were randomised into two equal groups (conjugated equine estrogen, 0.625mg /daytibolone2.5mg/day). Serum concentrations of total cholesterol, high density lipoproteins (HDL) cholesterol and triglycerides were determined at base line and after 3 and 6 months of therapy. A disturbed baseline lipid profile was observed in postmenopausal women. Estrogen resulted in a significant increase in serum triglycerides whereas a significant decline was observed with tibolone. Both drugs decreased serum cholesterol (total) and low density lipoproteins (LDL) cholesterol significantly. Serum HDL cholesterol, however, increased with estrogen but decreased with tibolone. Tibolone is found to be as effective or more than estrogen in improving the lipid profile in postmenopausal women; moreover, its side effects are less than those of estrogen.

Discrimination of Ovarian tumours: A Laser Spectroscopy Approach

Rani Akhil Bhat, C Murali Krishna, K K Mahato, Pratap Kumar N: Department of Obstetrics and Gynaecology, Oman Medical College, Sohar; Center for Laser Spectroscopy, Manipal Academy of Higher Education, Manipal 576104, India and Department of Obstetrics and Gynaecology, Kasturba Medical College and Hospital, Manipal 576104, India.
Email: drraniakhil@hotmail.com

Detection of neoplastic changes using optical spectroscopy (Raman, fluorescence and Fourier transform infrared (FTIR) spectroscopy) has been one of the active areas of research in recent times. These methods have the advantage of in vivo applicability without the need for a biopsy and hence have the potential of being an alternative to frozen section examination in the future. To explore the feasibility of discriminating normal, benign and malignant conditions in ovarian tissues by laser spectroscopy, a study of 50 patients undergoing oophrectomy (25 normal, 15 benign, 10 malignant) was undertaken; reflectance spectra of each sample were recorded with the Raman and photoacoustic spectroscopy setup. This setup consisted of a diode laser (785 nm, 100mW) for excitation, and a high resonance (HR) 320 spectrograph and spectrum one liquid nitrogen cooled charge coupled device (CCD) for detection. A holographic filter was used to filter unwanted lines from the excitation source. A notch filter was used for removing the Raleigh scattering. Baseline corrected, smoothened, calibrated and normalized spectra were subjected to multivariate statistical analysis and principal components analysis (PCA) for objective classification as normal and malignant tissue. Randomly selected spectra from each category were used for PCA. Good classification between normal and malignant tissues was achieved using 'scores of factors' as the discriminating parameter. The great advantage of the optical method combined with statistical data analysis is that cases which show anomalous behaviour can be re-evaluated with a second scan with more sampling points. This is of great advantage especially for screening, surgical boundary demarcation and follow-up after therapy since there is no need for a repeat biopsy. The results of the study demonstrate that, the PCA based k-NN classification achieves objective discrimination among normal, benign, and malignant ovarian tissues with high specificity and sensitivity. With possible in-situ application, this approach can be an effective clinical tool in diagnosing and differentiating normal ovary from pathological conditions.

Conservation of Ovary in Bilateral Twisted Spontaneously Hyperstimulated Ovaries in Singleton Gestation

Houda Al-Yaqoubi, Anita Zutshi, Noor Al Mandhari, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman.
Email: zutshi@omantel.net.om

Spontaneous ovarian hyperstimulation syndrome (OHSS) has been reported in twin and molar pregnancies with high endogenous human chorionic gonadotrophin (hCG) levels. However, the spontaneous form of this syndrome is extremely rare in the literature. This is a case report of spontaneous OHSS in a singleton pregnancy with bilateral torsion of enlarged ovaries and one ovary conserved. A 27 years old lady was admitted with acute abdomen in her second pregnancy at 11 weeks of pregnancy. Clinical examination and ultrasound examination revealed both ovaries with multi-loculated cysts, measuring 10 x 15 cm each, occupying the abdomen from the suprapubic to the hypochondrium area. On laparotomy both ovaries were enlarged and the left ovary was twisted on its pedicle 3 times with gangrenous tube and ovary. Left salpingo-oophorectomy was done. The patient was discharged after an uneventful postoperative period. She was readmitted with similar acute abdomen picture at 15 weeks of gestation. Relaparotomy revealed a triple twist on the right hyperstimulated ovarian pedicle involving the right tube. There was 500ml blood in the peritoneal cavity and the ovary was congested and purple in colour as the previous time. The pedicle was untwisted and a wedge resection of hyperstimulated ovary was done followed by reconstruction of the residual ovary. She had an uneventful postoperative period and her pregnancy continued till term. At term in labour she underwent emergency lower segment caesarean section for abnormal cardiotocograph with delivery of a healthy baby. A normal size right ovary and healthy right tube was seen. Six months later she was pregnant again. This report concludes that after torsion even gangrenous looking ovaries when untwisted may recover their blood supply and be conserved.

Persistent gestational trophoblastic tumour following a partial mole

Mini Benny Poothavelil, Ilham Hamdi, Geeta Zunjurwad, Department of Obstetrics and Gynaecology, Nizwa Hospital, Oman.
Email: drminibenny@hotmail.com

Complete and partial moles may develop persistent gestational trophoblastic tumours, local uterine invasion and dissemination, although a partial mole has a risk of about only 0.5% requiring chemotherapy. We report a case of partial hydatidiform mole developing vaginal metastasis requiring a multidrug chemotherapy regimen. A 27 year old para 2 woman was diagnosed with a partial vesicular mole and underwent suction evacuation. She presented 2 weeks later with profused vaginal bleeding due to vaginal metastasis. She had rising beta human chorionic gonadotrophin (hCG) levels and was referred to a tertiary care centre for chemotherapy. She was later started on etoposide, methotrexate, actinomycin-cyclophosphamide, vincristine regimen due to plateauing beta hCG levels. A partial vesicular mole can have malignant sequelae although it is very unpredictable and can develop very soon after initial treatment. Therefore initial assessment, treatment and postevacuation follow up are paramount.

Occlusion of Upper Genital Tract Following Lower Segment Caesarean Section for Placenta Praevia

Mini Benny Poothavelil, Ilham Hamdi, Geeta Zunjurwad, Department of Obstetrics and Gynaecology, Nizwa Hospital, Oman.
Email: drminibenny@hotmail.com

sUterine cavity occlusion following caesarean section for central placenta praevia culminating in haematometra and thereby amenorrhoea is one of the rarest long term complications of lower segment caesarean section. We report a case of 28 year old primigravida with Grade 4 placenta praevia who underwent an elective caesarean section at 35 weeks gestation. She presented after 7 months with cyclical lower abdominal pain and amenorrhoea. She was treated by hysteroscopic adhesiolysis and in utero Foley's catheter. She had complete resolution within 2 months and resumption of menstrual cycles. Multiple haemostatic sutures at caesarean section for placenta praevia can be a causative factor for such a complication along with other risk factors like multiple caesarean sections, chorioamnionitis etc. Recognition of these factors, meticulous surgical techniques and appropriate postoperative care can effectively prevent it.

Hysteroscopy – findings and decision making for treatment of abnormal uterine bleeding in pre and post menopausal women

Neesha Sharma and Veena Paliwal, Sultan Qaboos Hospital, Salalah, Oman.
Email: paliwal@omantel.net.om

The objective of this study was to assess the feasibility of hysteroscopy (VersaScope) for identifying abnormal findings in uterine cavities of pre- and postmenopausal women presenting with abnormal uterine bleeding (AUB) and to assess how this procedure can affect the decision for mode of treatment. This retrospective study was carried out at Sultan Qaboos Hospital, Salalah, Oman, over the period December 2005 -August 2007. 42 patients of AUB of different age groups had hysteroscopy by VersaScope as day care or inpatients. The procedure was done with/without anaesthesia as per need of patient. Endometrial sampling was done at the end of procedure in all patients. All patients had a full workup and ultrasonography prior to hysteroscopy. The results were that 35 % of patients had normal uterine cavities. The most common funding was endometrial polyps (40%) and submucous fibroids (12%); other findings were atrophy, hyperplasia and cancer (2 cases). Polypectomy was done in the same session. One patient had hysteroscopic myomectomy. Seven patients had abdominal and vaginal hysterectomies. The rest could be managed with hormones/conservatively. The conclusion is that hysteroscopy is a feasible technique in identifying abnormal uterine findings in AUB in pre- and postmenopausal women. Based on hysteroscopic findings, the cause of AUB can be accurately diagnosed and subsequently appropriate decisions regarding different treatment options can be made chosen. This is especially useful in cases of postmenopausal bleeding as most of them are high risk cases. This avoids the morbidity of surgery. If used as an office procedure it can further enhance efficiency and patient compliance; however, at present, due to limitations of logistics this is not used as office procedure at our hospital.

Concomitant Chemoradiation and High Dose Rate Brachytherapy in The Management of Locally Advanced Cervical Cancer

Ashok Kumar Chauhan, Harmeet Singh, Pushpa Dahiya, Departments of Radiotherapy and Obstetrics and Gynaecology, Postgraduate Institute of Medical Sciences, Rohtak, India.
Email: drchauhanashok@yahoo.co.in

Uterine cervical cancer is the commonest malignancy in women in developing countries. Concomitant chemoradiation has become the standard of care and the introduction of high dose rate is a new radio therapeutic modality in developing countries. Thirty local women with locally advanced uterine cervical cancer of squamous cell histopathology were entered into the study. They were administered chemotherapy carboplatin in dose of 450mg/m2 every three weeks along with external beam radiotherapy (EBRT) in a dose of 50 Gy in 25 fractions over a period of 5 weeks. This was followed by intracavitary brachytherapy (ICBT) with dose of 7 Gy once a week for three weeks. The concomitant chemoradiation was tolerable with manageable acute chemoradiation side effects. The disease free survival (DFS) at 2 years is 52%. The concomitant carboplatin and radiotherapy was able to achieve better results in locally advanced cervical cancer. The administration of brachytherapy is must in case of management of cervical cancer to achieve good local control and high dose rate (HDR) is convenient as an outpatient procedure in this setting.

Review of women with endometriosis attending The Endoscopic Unit, Royal Hospital, Oman, 2005 - 2007

Khalsa Al Hattali and Noor Al Mandhari, Division of Obstetrics and Gynecology, Royal Hospital, Muscat, Oman.
Email: nalmandhari@yahoo.com

Endometriosis is one of the commonest benign recurrent gynaecological conditions with 10-25% incidence in reproductive age. The objective of our study was to assess the severity of endometriosis, the recurrence rate after laparoscopic surgery and possible causes by retrospective analysis of computerised patient records from preendoscopy clinic and operative laparoscopic records. Out of a total of 42 patients, almost half were unmarried (23/42) and the majority were below 31 years old (36/42=85%). Out of 19 married patients, seven had primary infertility and seven secondary infertility. Ultrasound was the main tool for the diagnosis of endometriosis. Out of 23 estimated Ca 125, nine (39%) had elevated levels. The majority of cases had Grade III or Grade IV endometriosis on laparoscopy with no difference in the severity among the different age groups. After surgery, unmarried patients with severe endometriosis had GnRh analogues for 2-3 months followed by combined oral contraceptive pills (COCs) and patients with Grade I-II endometriosis had COCs till they got married. Four infertility patients with grade IV endometriosis had GnRh analogues after surgery. Two conceived spontaneously and two had an unsuccessful in vitro fertilisation (IVF) attempt. Recurrence of endometriosis was found in 12 patients including 3 with IVF, 1 on clomid and 1 stopped contraceptive pills. Four patients (35%) with infertility conceived after the surgery, 3 spontaneously, 1 on clomid and one on human gonadotrophins (HMG) with intrauterine insemination (IUI). In our study endometriosis was more common in the younger age group, below 30 yrs. Although the number in this study is small, the incidence of infertility was high after surgery as in other studies. Ovulation induction is a known cause for recurrence of endome-

triosis as well as discontinuation of hormonal treatment.

An unusual case of bilateral tubal ectopic pregnancy - A tale of caution

Archna Mohan, Pooja Vaswani, Bharthi Balakrishna, Sahar Sheitty, Sultan Qaboos Hospital, Salalah, Oman.
Email: rayofhope254@yahoo.com

A 23 year old female, P0+2, treated for secondary infertility with gonadotrophins, presented in emergency with severe pelvic pain following amenorrhea of 7+ weeks. She was admitted with pain and bleeding per vaginal at 5 weeks amenorrhea with mild ovarian hyperstimulation and positive urine pregnancy test. She underwent evacuation under general anaesthetic with diagnosis of inevitable miscarriage. She remained well for two weeks and at 7 weeks had severe pelvic pain. On pelvic examination and ultrasonography the diagnosis of unruptured unilateral tubal ectopic pregnancy with 8 weeks size live fetus and hyperstimulated (7x8cm) ovarian cyst with minimal haemoperitoneum was made. Emergency laproscopy revealed simultaneous bilateral tubal ectopic pregnancies. On one side, linear salpingotomy was performed, while on other side the tube was not salvageable so salpingectomy was done. Histopathology confirmed a bilateral ectopic pregnancy. The postoperative period was uneventful with satisfactorily dropping serum beta human chorionic gonadotrophin (hCG) levels. The first report of an ectopic pregnancy following in vitro fertilisation was published in 1976, since then ectopic pregnancies have been reported at an increasing rate due to advanced management of subfertile females with ovulation induction and assisted reproductive techniques. Still, a bilateral ectopic pregnancy remains a rare occurrence. Until now > 200 cases have been reported in the literature with incidence between 1:725 and 1:1580 extrauterine pregnancies. Diagnosis of ectopic pregnancy continues to be an important challenge faced by the emergency physician and obstetrician. If diagnosed in a timely manner, steps can be taken for conservative management to preserve future fertility and avoid complications.

High Prevalence of obesity in sub fertile females - study in Dhofar region - Oman

Archna Mohan, Selvi Anderson, V Paliwal, Sultan Qaboos Hospital, Salalah, Oman.
Email: rayofhope254@yahoo.com

To quantify the prevalence of obesity and its associated problems in the subfertile female population of the Dhofar region of Oman, a retrospective study was done from January 2001 to January 2003. A total of 235 patients at the infertility clinic were studied and analysed. Out of 235 patients (average age = 26 yrs.), 17% were normal weight (BMI 19-24), 22% were overweight (BMI 25-29), 61% were obese (BMI>30) with 9% of BMI 45-50. 88% of obese cases had subovulation with or without polycystic ovarian syndrome (PCOS). 30% of these cases responded to weight reduction and ovulation induction, 6% conceived with weight reduction alone, still 70% were awaiting conception and many of them were morbidly obese at a very young age of 25-26 yrs. It was found that with increasing BMI the percentage of menstrual disturbance also increased from 10% to 35%. Obesity is associated with infertility and other long term diseases like menstrual disorders, PCOS, ovarian and endometrial malignancies, cardiovascular diseases, diabetes mellitus, high surgical risks etc. Dhofar region has an alarmingly high incidence of obesity due to lifestyle and genetic reasons. There is a great need to implement effective programmes to educate the population in terms of changing lifestyle, providing facilities for weight reduction and long term follow up.

Obesity - A global epidemic!

Vidya Kishore, Kanchana Rajan, Saadia Amour Sultan Al Riyami, Royal Hospital, Muscat, Oman.
Email: kkshetty@omantel.net.om

Obesity is a global epidemic. Estimates suggest that 1.1 billion adults are overweight, 3.5 million of whom are obese. The prevalence of obesity has doubled or tripled in less than 2 decades while in children it is rising at a faster rate. The same problem is appearing in all developed and developing countries. The prevalence of obesity in women in the Gulf countries is high. Amidst a host of resulting complications, of particular concern to this paper presentation, is the effect of obesity and infertility in Omani women. To find the prevalence of obesity and its associated problem in the subfertile Omani female population, a retrospective study was done of 500 consecutive patients registered at the infertility clinic in Wattayyah Polyclinic, the tertiary referral health centre for the whole of Oman. Obesity is associated with infertility and many other complications. Obesity is not simply the result of over-eating and not all types of obesity have the same significance. Obesity is in part genetic and one particular type of obesity is the tendency to 'truncal obesity' that is, a raised waist to hip ratio. Such obesity is associated with a tendency for diabetes and cardiovascular mortality (syndrome X). A weight reduction programme should be a major focus. There is a great need to educate the population regarding the risks of obesity and encourage the adoption of healthy life styles.

Saline Infusion Sonography in the Evaluation of patients with abnormal Uterine bleeding and Intrauterine pathology

Attuveppil Raman Vijayalakshmy, Sultana Khan, Department of Obstetrics and Gynecology, Khoula Hospital, Muscat, Oman.
Eamil: drsaak@omantel.net.om

Purpose of this study was to determine whether hydrosonography improves the diagnostic accuracy in detecting intrauterine abnormalities and its correlation with direct visualization methods like hysteroscopy and hysterectomy. Women presenting with abnormal uterine bleeding or suspected intrauterine pathology were subjected to saline infusion sonography from January 2004 to June 2007. The procedure was done using a transvaginal sonography (TVS) probe of 6MHz and no. 6 Infant feeding tube. Results guided further investigations. Out of a total of 30 saline infusion sonography cases, 20 patients were diagnosed to have endometrial polyps, 6 to have submucous myoma, 3 to have fibroids elsewhere in the uterus and 1 patient a thickened endometrium. On hydrosonography, out of the 20 patients suspected to have polyps, 15 (75%) were confirmed to have polyps. No polyps were seen in 5 cases. Submucous myoma, fibroid uterus and thickened endometrium were confirmed in the other above mentioned cases. Hysteroscopy with or without polypectyomy/endometrial biopsy was done in 18 cases. Total abdominal hysterectomy with or without bilateral salpingo-oophorectomy was done in 6 cases, laparo/hysteroscopy, cystectomy with polypectomy in 1 case. The findings of the hydrosonography and hysteroscopy in 18 cases were correlated. In 15 out of 18 cases (83%), the findings of hydrosonography were confirmed by hysteroscopy. In 2 cases of suspected polyps, there were no polyps, but the endometrium was polypoidal. In one case, which appeared as localized thickening on hydrosonography, it was found to be a polyp. Saline infusion sonogrpahy is

a noninvasive method of evaluating patients with abnormal uterine bleeding and those with intrauterine pathology for further management. The correlation between TVS and hydrosonography in this study was 75% and hydrosonography with hysteroscopy was 83 %, which is in agreement with other studies internationally.

Spontaneous rupture of a gravid uterus at 14 wks in a patient with history of full term delivery after Myomectomy - A Case Report

Attuveppil Raman Vijayalakshmy and Sultana Khan, Department of Obstetrics and Gynecology, Khoula Hospital, Muscat, Oman.
Email: yydas@hotmail.com

A 35 yr old Indian lady, gravida 2, para 1, with one live child, with a past history of myomectomy, was admitted at 14 weeks gestation with acute lower abdominal pain of a few hours duration. She had a myomectomy in past followed by one full term normal delivery. On admission, the patient was very pale with pulse of 120/mt and BP-110/70. Her abdomen was distended with guarding and rigidity. The uterine size could not be made out. There was evidence of free fluid in the peritoneal cavity. An ultrasound scan revealed lot of fluid in the peritoneal cavity with suggestion of a ruptured left cornual ectopic of 14.3 wks gestation. On emergency laparotomy, the whole fundus of the uterus had ruptured transversely for about 5-6cm and a fetus with gestational sac was protruding through the rent with the haemoperitoneum. The fetus with sac and remaining placental tissue were removed, the ruptured edges were sutured and haemostasis was achieved. Bilateral tubal ligation was done and the abdomen was closed. She had an uneventful post operative period and was discharged on day four. Uterine rupture is a rare and often catastrophic complication associated with high incidence of fetal and maternal morbidity. The overall incidence of uterine rupture has been reported to be 0.07%. Spontaneous rupture of unscarred uterus in developed countries has been variously reported ranging from 0.0033 to 0.13%. Myomectomy by any route is associated with a risk ranging from 1.4-1.7%, though most ruptures have been reported to occur in labour or in the third trimester. Our case is a rare incident where spontaneous rupture has occurred in early second trimester. A high index of suspicion of a ruptured uterus has to be maintained whenever a patient with myomectomy scar presents with acute abdominal pain and haemoperitoneum irrespective of the gestational age.