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Subtotal Abdominal Hysterectomy *versus* Laparoscopic Assisted Supra-Cervical Hysterectomy: *Will austerity promote a rethink?*

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Since its introduction in 1948, spending on the UK National Health Service (NHS), as a share of national income, has more than doubled, rising by an average of 4% a year in real terms. This period of rapid growth has now ended, but funding pressures on the NHS continue to rise igniting a debate on the most cost-effective way of offering treatment. In this context, we audited subtotal abdominal hysterectomy (STAH) and laparoscopic-assisted supra-cervical hysterectomy (LASH) for benign gynaecological indications in a large district general hospital. A retrospective audit was undertaken of records of patients who had STAH or LASH for benign conditions at Wishaw General Hospital between August and July 2012. Twenty-five patients for each procedure were identified from the theatre information system. As three sets of notes could not be traced, there were 22 patients in the STAH group and 25 in LASH group. The mean operating time for STAH was 61 min (34–85 min) and 145 min (75–237 min) for the LASH group. There was one major complication in the STAH group (1,000 ml blood loss) compared to five in the LASH group (a pelvic infection, two wound infections and two patients with neuropathic pain at port sites). The mean hospital stay in the STAH group was 2.5 nights (2–4 nights) and 2 nights for patients undergoing LASH (1–4 nights). Costs were £2,213.40 (= OMR 1420) for STAH and £2,613.80 (= OMR 1677) for LASH. In this study, complication rates and apparent costs seemed comparable. Shorter hospital stays and possibly quicker recovery are areas where the laparoscopic approach scores over open surgery. In days of austerity for the NHS, surgery options need careful consideration. Open surgery's shorter operating times will help tackle long waiting lists but, if the impact on post-operative recovery and time off work are considered, the laparoscopic approach might be better.

Audit of Clinical Coding: *A neglected aspect of practice with significant impact on clinical care!*

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Clinical coding is the translation of medical terminology describing a patient's complaint, problem, diagnosis, treatment or reason for seeking medical attention, into a nationally and internationally recognised coded format. It is used to support many functions both clinical and statistical. This audit looked at the quality and depth of the coding by the clinical coder compared to what is documented by the clinical staff in the patient record. We also checked with clinical staff that the right information is being extracted for coding and is understood in the right context. Three dimensions of coding accuracy were reviewed: (1) Individual codes – that each statement of diagnosis and operative procedure had the correct code; (2) Totality of codes – all codes gave an accurate clinical picture of the patient's stay in hospital; (3) Sequencing of codes – that codes were organised according to the rules and conventions. A retrospective review of case notes was undertaken by a consultant obstetrician/gynaecologist and a clinical coding auditor. All patients admitted under a randomly selected consultant in April 2013 were included. 42 case notes were reviewed; six amendments were made to the original coding giving a 14.28% amendment rate. However, the primary diagnosis was right in 100% of cases; amendments affected secondary diagnosis and procedure codes. This related to the coder difficulty in extracting information from the notes; particular problem areas were poor handwriting, information being in a random order, and occasionally conflicting information. An amendment rate of 14.28% to initial coding is high and can have significant implications with regards to clinical governance/evaluation of a patient's clinical care and comparison of outcomes. It also adversely affects epidemiology data and can adversely impact hospital finances. Moving to electronic case notes might be the way forward in effectively addressing this issue which has profound implications for patient care.

Guidelines in Obstetrics & Gynaecology: *Should we universalise them?*

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Guidelines are considered today as the backbone of best clinical practice. They are mainly built on evidence and clinical experience. A search on Google gives 106 million hits for clinical guidelines and 3.79 million for guidelines in obstetrics and gynaecology. Interestingly, the clinical practice guidelines of the Society of Obstetricians and Gynaecologists (SOGC) comes first in the search category and the

Royal College of Obstetricians & Gynaecologists (RCOG) takes the second place with the Royal Australian New Zealand College guidelines coming fourth. Despite the enthusiasm to produce guidelines for every clinical situation there is an overwhelming number of overlaps and differences, leading to confusion. In the UK, virtually every hospital has "customised" these guidelines, giving less flexibility for its use in practice. They are all developed based on the RCOG and National Institute for Health and Care Excellence (NICE) Guidelines. Recent trends are shown in the merging of NICE and the RCOG guidelines in certain conditions like obesity, diabetes and hypertension. We believe the huge evidence-based knowledge base should be cultivated to produce simple, clear, but comprehensive guidelines for management of various clinical conditions. The guidelines usually have an algorithmic design and flow. Such algorithms help in making appropriate analysis and design based on clinical evidence and experience. An added advantage is that these analytic processes can be captured online especially using artificial intelligence programs like neural networks. Thereafter they could be validated, following appropriate clinical audits, to provide best practice opportunities for all clinicians and support staff. More importantly, when we use a single or uniform guideline across the world utilising modern day e-documentation technology, we are able to develop a flexible management guideline for very important situations like postpartum haemorrhage. Instead of having protocols from the World Health Organization, RCOG, the Federation of Gynecology and Obstetrics (FIGO), the American College of Obstetricians and Gynecologists (ACOG), NICE and many more, we could have an international set of guidelines that could be effectively used in both de-veloped and developing countries. Such a guideline would bring an effective electronic clinical management system to the world while still accommodating individual but safe variations.

Prevalence of Multiple Gestations and their Maternal and Perinatal Outcomes in Dubai Hospital in 2012

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Twins and higher order multiple pregnancies are becoming increasingly common. This is due to the increasing availability and affordability of assisted reproductive techniques in the United Arab Emirates. This study aimed to determine the prevalence of multiple pregnancies in Dubai Hospital in 2012 and to analyse the associated adverse maternal, perinatal and neonatal outcomes. This retrospective study involved all multiple pregnancies followed and delivered in Dubai Hospital between 1 January and 31 December 2012. There were a total of 106 multiple gestations in this period including 97 twins and 9 triplets. This gives a multiple gestation rate of 65.2 per 1000 live births which is much higher than other rates worldwide. The mean maternal age was 30.5 years. The commonest comorbidity was prematurity (72.6%) followed by diabetes (22.6%). In contrast, almost 60% had no associated comorbidities. Growth discordance was seen in approximately 7.5% of patients; hypertensive disorders occurred in 6.6%; antepartum haemorrhage in 5.7% and postpartum haemorrhage in 3.8%. Half of these multiple gestations were conceived spontaneously and around a third were conceived through *in vitro* fertilisation or intracytoplasmic sperm injection. The mean gestational age of delivery for twins in our study was 34.3 weeks ± 3.7 and for triplets it was 31 weeks ± 3.5. A total of 72.6% were delivered via Caesarean section, the main indication (32.1%) being maternal request; 25.5% were delivered vaginally. Regarding neonatal outcome, most were of low birth weight (58.4%). The vast majority (93.2%) had a 5 minute Apgar score of ≥7 but the NICU admission rate was around 38%, and these were mainly in the triplet category (77% *versus* 33% in twins). This study suggests a multiple-gestation prevalence rate much higher than in other developed countries such as the USA. It was even higher than Nigeria which previously had the highest multiple-gestation rate worldwide. Both mothers and fetuses in these pregnancies are at increased risk and this warrants increased awareness of the associated complications.

Improving Knowledge of Urinary Incontinence among Community-dwelling Women using a Video-Assisted Teaching Programme

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Urinary incontinence (UI) is a common health problem among women of all ages, cultures and races across the world with rates ranging from 4.8–58.4%. By the year 2018, it is projected that 423 million people worldwide will be affected by UI and the burden of this condition will be greatest in Asia and other developing regions. Due to lack of knowledge of available treatments and women's tendency to consider UI as a normal part of ageing, affected women do not readily seek treatment. The aim of this study was to assess women's knowledge and attitude about UI and the effectiveness of a video-assisted teaching programme for improving their knowledge. The study was conducted in Coimbatore, Tamil Nadu, India. A cross-sectional design was used to collect data from 598 women aged 20 to 60 years. A pre- and post-test design was then used to assess the effectiveness of the video-assisted teaching. Data were analysed using a paired sample t-test. UI was self-reported by 33.8% of women while 66% denied having UI. The majority of women with UI (90%) and without UI (90%) had inadequate knowledge levels. The attitudes of women with and without UI were mostly negative. More than 80% reported that they agreed with statements such as: accidental loss of urine is a common problem that every woman faces; women should not go for social events if they have UI; there is no treatment available for UI; UI cannot be prevented or cured. The differences in pre- and post-test knowledge level scores of both women with and without UI were statistically significant (P <0.001). Many women suffer from UI; this warrants significant public health consideration especially health education given that the life expectancy of females is increasing. Delay in seeking medical care to manage UI effectively can lead to a worsening of the condition and of overall life quality.

Effectiveness of Antenatal Exercises on Fetal Outcome

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Maternal and reproductive health is a global issue in today's world. Childbirth educators can significantly improve the safety of mothers and babies during labour and birth. Childbirth preparation classes provide women with information on what care will be provided and what they need to know to complete their labour safely. This study aimed to determine the effectiveness of antenatal exercises on fetal outcome such as fetal distress, asphyxia neonatorum and birth trauma. A quasi-experimental study was conducted in a maternity hospital in Karnataka, India with 600 primigravid women (300 + 300 controls). Education on antenatal exercises was provided with the help of 3-D animation and the practice was monitored. The Chi-squared test was applied for comparing the groups against fetal distress, birth trauma, and asphyxia neonatorum. The primigravid women performed exercises for between 15 and 34 days. The Chi-squared value showed a statistically significant difference in fetal outcomes in both the groups. Fetal distress was assessed by the colour of the

amniotic fluid; it was green for 4.3% in experimental group *versus* 12.3% in the control group. This was highly significant at P <0.001. Asphyxia neonatorum was found in 96.7% of newborns in the experimental group, while 93.3% of the controls had mild asphyxia at 1 minute. Moderate and severe asphyxia were present in 2% and 2% of newborns in experimental group and 4% and 2.7 % in the control group, respectively (P <0.005). Birth trauma was absent for 97.3% and 8.33% of newborns in the experimental and control groups, respectively. *Caput succedaneum* was found in 7% and 25 % of the experimental and control groups, respectively (P <0.005). There was no significant difference in cephalhaematoma between the two groups. Healthcare providers should be aware of the benefits of a prenatal exercise programme and promote it as a routine, non-pharmacological measure to improve maternal and fetal wellbeing.

Ectopic Pregnancy: *Experience in a tertiary care hospital in Oman*

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Ectopic pregnancy is a leading cause of maternal morbidity in first trimester, occurring in 1 in every 100 pregnancies from natural conception cycles. The rates of ectopic pregnancies have recently risen due to the increasing incidence of sexually-transmitted diseases and of *in vitro* fertilisation techniques. Transvaginal ultrasonography along with beta-human chorionic monitoring are the standard methods for evaluating suspected ectopic pregnancies. The availability of these diagnostic modalities has led to early diagnosis and improved the management of this life-threatening condition. Systemic methotrexate has emerged as an effective and low-cost treatment with minimal side-effects for unruptured ectopic pregnancy. This study aimed to find the incidence and prevalence of ectopic pregnancy and the effectiveness of its medical management at the Armed Forces Hospital (AFH), a tertiary care hospital in Muscat, Oman. A retrospective analysis was carried out of all cases of ectopic pregnancies diagnosed from July 2007 to June 2012. The demographics and management of each case was analysed and statistical tests applied. A total of 92 cases of ectopic pregnancies were diagnosed at the AFH in this period. Most of the cases were in the younger age group; 13 (14%) cases were primigravida and the rest multigravida, while 25 (27%) cases presented with a ruptured ectopic pregnancy. Systemic methotrexate was offered according to protocol to 55 cases as the primary management. Out of the 55 cases, 50 (91%) cases were treated successfully with medical management. There were two cases each of cervical and cornual pregnancy and one case of misdiagnosed interstitial pregnancy reaching 34 weeks. Early referral and increased vigilance, in order to rule out ectopic pregnancy, can lead to successful outcomes with medical management. The diagnosis of rare types of ectopic pregnancies should be kept in mind when monitoring pregnancies of unknown location. Medical management has a 80–90% success rate and should be offered whenever the criteria are met.

Third and Fourth Degree Perineal Tears: *Can they be predicted or prevented?*

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Third degree obstetric perineal tears are defined as a partial or complete disruption of anal sphincter muscles, involving either or both external and internal anal sphincter muscles. Fourth degree perineal tears are a disruption of the anal sphincter muscles with a breach of the rectal mucosa. The overall risk of obstetric anal sphincter injury is 1% of all vaginal deliveries. This study aimed to analyse the risk factors for obstetric anal sphincter injury and determine whether these injuries can be predicted or prevented. An audit was conducted at the Royal Hosptial, Oman, a tertiary care hospital, using the hospital database to review patient records. The initial audit was from 1 June to 31 December 2012, and the re-audit was undertaken from 1 March to 31 August 2013. The number of women who delivered vaginally in this period was noted and the number of cases with third/fourth degree perineal tears was determined as per the Royal College of Obstetricians & Gynecologists Greentop guideline No. 27, 2007. Risk factors for anal sphincter injuries were listed and it was determined how each factor was incriminated in the study. The re-audit analysed how the recommendations of the audit had improved the incidence, management and follow-up of these patients. The incidence of anal sphincter injuries in the audit was 0.87% but in the re-audit only 0.36%. The incidence was higher in primigravidas in both groups (63%, 59%), with pregnancies being postdated in 35% and 20% cases, respectively. The incidence of fetal macrosomia was 21% and 8% in the two audits, respectively, with 12% cases of shoulder dystocia in the audit and none in the re-audit. The incidence of instrumental deliveries and episiotomies was identical in both audits. Tears were repaired by senior doctors in 64% in first group, but in 100% in the re-audit group. The end-to-end method of repair was more often used. Obstetric anal sphincter injuries cannot be predicted but can be prevented to some extent by an awareness of the risk factors. Adequate perineal support and supervised delivery by a senior obstetrician, especially where fetal macrosomia is suspected, may help. Senior doctors should repair the tears and carry out the postoperative review and follow-up.

Accuracy of Optium Xceed Glucose Meter for Measuring Blood Glucose Levels in Pregnancy

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The glucose meter is used as a point-of-care testing device to follow up patients for diabetes control. There is a difference in the glucose values obtained by the glucose meter compared to the central laboratory measurements. This study aimed to evaluate the accuracy of the Optium Xceed Glucose Meter with Optium H strips for measuring glucose levels in capillary and venous whole blood, in comparison with the plasma glucose measurement by the Roche Cobas Integra 800 Analyzer in pregnant women. A total of 74 pregnant women were included in this study, with a total of 120 samples collected for fasting/post-prandial glucose measurments; 43 patients (58%) were gestational diabetic; 14 (19%) type 2 diabetic; 1 (1%) type 1 diabetic and 16 (22%) were normal. Glucose measurements for all samples were done using both types of analyser. Capillary and venous whole blood samples in the fasting and post-prandial state were used for glucose meter measurement using Optium H strips. Venous samples were sent to the laboratory for plasma glucose measurement, using Glucose HK liquid reagent by the enzymatic reference method with hexokinase. Statistical evaluation of the data was performed using the Statistical Package for the Social Sciences software and the STATA programme. Analysis of variation, correlation and the paired t-test were used to ascertain the relationship between continuous variables. A very high correlation between capillary and venous glucometer measurements and laboratory measurements were observed in both fasting and postprandial states. The difference between the capillary whole blood glucose and plasma glucose results from the laboratory were 12% and 13% respectively and within the acceptable range. This study demonstrates that the Optium Xceed Glucose Meter gives accurate results for glucose levels in capillary and venous samples in a few seconds. Home blood glucose monitoring can therefore replace laboratory testing thus saving resources.

An Audit of Caesarean Sections by Peer Review

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The rising caesarean section (CS) rate worldwide is a subject of concern. CS leads to an increase in maternal mortality and morbidity as well as having considerable financial implications. The changing trends in the rates of CS section may be partly explained by the change in the expectations of the obstetric population coupled with improved anaesthetic and neonatal techniques. Fear of litigation is another major factor affecting CS rates. This study aimed to audit 50 consecutive emergency CS done for singleton pregnancies and assess the degree of agreement among peers for the decision to perform each CS. A retrospective audit with peer review of emergency singleton CS was done from November 2012 to March 2013 in Sultan Qaboos University Hospital. Fifty consecutive women undergoing emergency CS were included. The peer review was undertaken by four consultants and two senior registrars. The CS were stratified according to the indication and the auditors were asked to answer the question: Do you agree with the decision for performing the CS? Out of the 50 emergency CS, 20 (40%) cases were done due to a non-reassuring fetal trace while labour dystocia accounted for 16 cases (32%). The mean decision to delivery interval was 40.7 mins in patients who had a CS for a non-reassuring trace in contrast to a mean of 47.4 in patients with labour dystocia. In 31 cases (62%), there was complete agreement among all auditors. There were only 3 cases where all three auditors disagreed. At least one auditor disagreed in 9 cases (18%) and two in 7 (14%) cases. Overall there was 94% agreement in two-thirds of the cases. The range of disagreement between auditors varied from 4–20%. The agreement among the auditors were comparable to international standards though there is scarcity of data in this area.

Letrozole *versus* Tamoxifen in Clomiphene Citrate-Resistant Women with Polycystic Ovarian Syndrome

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This study aimed to compare the effects of letrozole *versus* tamoxifen (TMX) in ovulation induction in clomiphene citrate (CC)-resistant women with polycystic ovarian syndrome (PCOS). This prospective randomised study was carried out at the Department of Obstetrics & Gynecology of Tanta University Hospital, Egypt. The study included a total of 60 infertile women (175 cycles) with CC-resistant PCOS. The patients were randomised to treatment with 2.5 mg of letrozole daily (30 patients, 86 cycles) or 20 mg of tamoxifen daily (30 patients, 89 cycles) for 5 days from day 5 of menses and 10,000 IU human chorionic gonadotropin (hCG) when mature follicles become ≥18 mm. The total number of follicles was ≥ 18 mm more in the letrozole group. The endometrial thickness at the time of hCG administration was significantly greater in the letrozole than in the TMX group (10.2 ± 0.7 *versus* 9.1 ± 0.2 mm). Ovulation occurred in 23.33% in the letrozole group *versus* 8.89%) in the TMX group, whereas pregnancy occurred in 5.56% in the letrozole group *versus* 2.22% in the TMX group. Both letrozole and TMX should be considered as optional therapies for CC-resistant women.

Salivary *versus* Serum Approaches in the Assessment of Biochemical Hyperandrogenaemia in Women with Polycystic Ovarian Syndrome

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The aim of this prospective randomised observational cohort study was to study the likelihood of using saliva rather than serum in diagnosing biochemical hyperandrogenemia in women with polycystic ovarian syndrome (PCOS). The study was conducted on 75 women with PCOS who were patients of the Department of Obstetrics & Gynecology, Tanta University Hospital, Egypt, in the period November 2011 to April 2012 and a control group of 20 normal fertile women. Venous blood and salivary samples were taken on the third day of their cycle to measure luteinising hormone (LH), free testosterone (FT) and dehydroepiandrosterone sulfate (DHEA-S) levels. The study found that biochemical hyperandrogenemia prevailed in 40% of cases with PCOS. Salivary levels of LH, FT and DHEAS correlated with their corresponding serum values with the salivary approach having a higher sensitivity than the serum approach. Therefore, this study shows that saliva provides a sensitive, simple, reliable, non-invasive and uncomplicated diagnostic approach for biochemical hyperandrogenemia.

Fetal Distress in Labour and Cesarean Section Rate: *How reliable is the CTG?*

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Cardiotocography (CTG) is a screening tool used to detect fetal hypoxia during labour. Variable interpretations of the tracing by clinician may affect patient management. Diagnosis of fetal jeopardy based on CTG alone has led to an increase in the Caesarean section (CS) rate over the last 40 years; however, there has been virtually no change in cerebral palsy rates and high CS section rates have contributed to maternal morbidity and mortality, including a rising incidence of morbidly adherent placenta. This study aimed to estimate the relationship between fetal distress in labour and the rate of CS and to test CTG as a non-invasive method for diagnosising and managing fetal distress in labour. This prospective observational study included patients who underwent emergency CS for suspected fetal distress following changes in the CTG pattern in the Obstetrics & Gynecology Department of Sultan Qaboos Hospital, Salalah, Oman, from January–June 2013. The following were recorded: maternal age; parity; any associated risk factors; specific types of abnormal fetal heart rate tracing; adverse immediate neonatal outcomes in terms of Apgar score <7 at 5 minutes; umbilical cord pH <7.0; neonates requiring immediate ventilation and Neonatal Intensive Care Unit (NICU) admissions. The correlation between non-reassuring fetal heart and neonatal outcome were analysed. Out of 2,909 patients delivered during the study period, 586 (20.1%) patients underwent a CS; 396 (67.5%) of these had an emergency CS, while 109 (27.5 %) patients underwent a CS during labour primarily for suspected fetal distress. The most common fetal heart abnormality was non-reassuring traces in 63 (57.8%) cases followed by variable deceleration in 14 (12.8%) cases and unclassified decelerations in 10 (9.2%) cases, suspicious traces in 7 (6.4%) cases, reduced variability in 7(6.4%) cases, and pathological traces in 2 (1.8%) cases. In 4 (3.6%) babies the 5 min Apgar score was <7; 21 (19.3%) babies required admission to the NICU for observation. Out of these, 3 (14.2%) babies required intubation and 2 (9.5%) babies had cord blood pH <7.0. The rest of the neonates (88, 80.7%) were born healthy. In this study, the non-reassuring fetal heart rate detected by CTG did not correlate well with

adverse neonatal outcome. Understanding the types of hypoxia, fetal reserves and other intrapartum risk factors as well as the human factors affecting CTG interpretation may help improve perinatal outcomes and reduce unnecessary interventions, even in centres where additional tests of fetal wellbeing are not available.

Evaluation of Diagnostic Ability of Novel Techniques in Endometrial Biopsy

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In endometrial sampling a tissue sample is taken from the lining of the uterus and examined under the microscope to look for abnormal cells and identify the cause of abnormal bleeding, pelvic pain, thickened uterine lining seen on ultrasound and infertility. This study aimed to investigate women who underwent endometrial sampling by Pipelle and SonoBiopsy catheters at Sultan Qaboos University Hospital (SQUH), Oman, as well as the adequacy of SonoBiopsy and Pipelle specimens in detecting endometrial pathology. This retrospective cohort study included all women who underwent endometrial biopsy at SQUH by the above methods between January 2010 and December 2011. The data was collected from SQUH electronic records system. A total of 61 cases were selected among 108 women who underwent endometrial biopsy by SonoBiopsy and Pipelle catheters at the Obstetrics & Gynaecology outpatient department. Participants' ages ranged from 27–66 years. The majority of cases were from the Muscat region, married (52) and Omani (55), with c. 48% of women having menorrhagia as the main compliant. A total of 50.8% of samples were obtained by SonoBiopsy catheter of which 87.1% were adequate, while 49.2% were obtained by Pipelle catheter of which 73.3% were adequate. Fibroids were common in younger patients (26.3% of those less than 39 years old), while endometrial polyp was common in older women (31.3% of those over 47 years old). This study showed that SonoBiopsy and Pipelle catheters produced similar results for detecting endometrial pathology. Women who underwent endometrial biopsy for menorrhagia were more likely to have fibroids if under 39 years old and polyps if over 47 years old. The study highlights the need for future research using prospective trials to compare the adequacy of SonoBiopsy and Pipelle catheters.

Clinical Profile of Women Diagnosed with Polycystic Ovarian Syndrome in a Tertiary Hospital in Oman: *A case-control study*

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Data about polycystic ovary syndrome (PCOS) in Arab countries is scarce despite increasing rates of obesity, diabetes, and infertility among the female population. This study aimed to assess the risk factors and clinical profiles of PCOS in Oman, a developing Arab country. A retrospective hospital-based case control study was undertaken from July 2006 to June 2012 among Omani women aged 16–45 years old. It included 85 women diagnosed with PCOS (Rotterdam 2003 criteria) and 85 randomly-selected controls without PCOS and matched for age, ethnicity, and quality of healthcare received. Socio-demographic data, anthropometric measurements, hormonal assays, lipid and glucose profiles, hyperandrogenism, a detailed fertility history and ultrasound findings of polycystic ovaries were collected for both study groups at baseline and over the follow-up period at the antenatal care clinic. Compared to the controls, the PCOS group had higher risk of obesity (OR 3.1; 95% CI 2.8–4.3), diabetes (OR 2.6; 95% CI 1.9–4.7), hypertension (OR 1.8; 95% CI 1.02–4.8) and hyperandrogenism (OR 3.6; 95% CI 2.1–5.2). Moreover, a positive family history of PCOS, diabetes, and hypertension were also positively associated with PCOS. Further prospective studies are required to confirm these results; however, the risk factors and clinical profiles identified lay the groundwork for developing a screening and early detection programme for PCOS in Oman.

Assessment of Awareness about Polycystic Ovary Syndrome among Female University Students

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This study aimed to assess the level of awareness about polycystic ovary syndrome (PCOS) among female university students. A prospective cross-sectional study was conducted from October to December 2010 at Sultan Qaboos University, Oman. A total of 500 female university students were contacted of which 468 (93.6%) completed a questionnaire which had been previously tested in a pilot study. Of the 468 respondents, 44.4% had never heard the term PCOS, while 55.6% had heard about it. The latter group was classified into: minimally aware (63%), moderately aware (16.5%) and highly aware (3.6%). The most common reported source of information was friends (57.7%) followed by the media (10.8%), school (10%), doctors (4.6%) and family (1.6%). Those aware of PCOS reported the following signs and symptoms: difficulty in conceiving (58.1%), unpredictable menstrual periods (17.1%), obesity (6.1%), hirsutism (4.7%) and acne (3.6%). These findings imply that in Oman most young women have a low level of awareness about PCOS. Female students who were aware of it reported that the first source of knowledge was a friend.

Medical Treatment of Etcopic Pregnancy with Systemic Methotrexate: *A review of 17 cases at Buraimi Hopsital, Oman*

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Historically, the treatment of ectopic pregnancy was limited to surgery. Methotrexate has revolutionised the treatment of selected cases of ectopic pregnancy. Methotrexate is an antimetabolite that interferes with DNA synthesis and disrupts cell proliferation. Medical therapy is preferable to surgery for various reasons including eliminating morbidity from surgery and general anaesthesia, potentially less tubal damage and lower cost. Successful medical treatment with methotrexate has been associated with good subsequent pregnancy outcomes.This study aimed to assess the effectiveness of systemic methotrexate for the treatment of selected cases of ectopic pregnancy through a retrospective review of 17 cases of ectopic pregnancy at Buraimi Hospital, Oman, from January 2010 to September 2013. The cases selected were haemodynamically stable patients without any contraindication to the use of methotrexate (such as deranged liver or renal function tests or known sensitivity to the drug) and who had serum beta human chorionic gonadotrophin (hCG) levels

<5000iu/l and an adnexal mass of <4 cm with <300 ml of free fluid in the pod. Patients were hospitalised, informed consent taken and they were counselled about the side-effects of the drug, the incidence of treatment failure and the need for further injection or surgery. The methotrexate dose was calculated by 50 mg/m2 body surface area and injected intramuscularly. The patients were observed for abdominal pain and signs of tubal rupture. Transvaginal ultrasonography and serum beta hCG levels were done on 4th and 7th days after the injection. If serum beta hCG levels fell by >15% between 4th and 7th day, patients were followed with weekly beta hCG tests until the levels became non-pregnant. If the beta hCG level increased or fell less than 15% a second dose of methotrexate was given. Treatment was described as successful if no surgical intervention was needed. Surgical intervention was undertaken in cases of tubal rupture or persistently higher levels of beta hCG in the absence of intrauterine gestation. A total 13 out of 17 (71.5%) cases were successfully treated with methotrexate of which 4 (23.5%) required an additional dose of methotrexate, while 4 (23.5%) cases required surgery for rupture of the ectopic pregnancy. Pretreatment beta hCG levels were <3,000 iu/L (mean value 910 iu/L and range 100–2020) in 15 cases and >3,000 iu/L in 2 cases. Average hCG resolution time was 16 days (range 8–37 days). With early diagnosis and the adoption of proper selection criteria, the medical treatment of an ectopic pregnancy with systemic methotrexate is an effective and safe alternative to surgical intervention.

Medical Induction in First Trimester Miscarriages: *The experience at the Royal Hospital, Oman*

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Medical methods for the induction of miscarriages have emerged over the last two decades as safe, effective and feasible alternatives to surgical evacuation. Misoprostol is one of the drugs used to induce miscarriage. This study aimed to evaluate the effectiveness of misoprostol as an agent for medical termination in first trimester miscarriages, in particular the complete miscarriage rate—defined as successful cases that did not required surgical evacuation after receiving misoprostol. This prospective study included all patients who were admitted in the Gynecology Ward of the Royal Hospital (RH), Oman, from 1 October 2009 to 30 September 2010 for termination of first trimester miscarriages. Misoprostol was administered according to the RH protocol. Data were analysed using the Statistical Package for the Social Sciences. Medical management with misoprostol was successful in 61.21% of patients while 38.79 % required surgical evacuation. Failed medical termination was the indication for surgical evacuation in 59% of patients. Most of the patients tolerated the misoprostol well and the pain was controlled by simple analgaesia in 70.1%. Misoprostol is well-tolerated drug which reduced the rate of surgical evacuation by > 60%. Misoprostol can be used safely for management of incomplete miscarriages, while more studies for its effect on missed miscarriages are needed. Misoprostol had a patient acceptance and satisfaction rate of 95%.

Maternal and Perinatal Morbidity and Mortality in Twin Pregnancies

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The diagnosis of multiple gestations is frequently met with joy and excitement by families; however, the happiness is tempered when it is realised that this places the mother and the fetuses at significantly increased risk for morbidity and mortality. The incidence of multiple gestations varies in different parts of the world. In developed countries, it has increased during the past 20 years mainly due to the widespread availability of ovulation-inducing agents, assisted reproduction techniques and delayed childbearing. Multiple gestations warrant special attention as they have been associated with an increased incidence of adverse outcomes, including premature delivery, pre-eclampsia, respiratory distress syndrome and malpresentations. Preterm delivery increases the risk for the baby. This study was conducted to evaluate the risks of pregnancy complications and adverse perinatal outcome in women with twin pregnancies. A 5-year retrospective study was undertaken at the department of Obstetrics & Gynecology, Khoula Hospital, Muscat, Oman, between January 2008 and August 2012. All women admitted to the antenatal and labour ward with multiple pregnancies after 24 weeks gestation were included in the study. The main outcomes measures were maternal complications (anaemia, gestational diabetes mellitus, pre-eclampsia, preterm labour, preterm prelabour rupture of membranes and postpartum haemorrhage), perinatal morbidity and mortality. All data were analysed using the Statistical Package for the Social Sciences, Version 16. A total of 85 (52%) women presented with preterm labour, 79 (48%) were delivered at ≥ 37 weeks of gestation. Anaemia was found in 17 cases (10%) and pre-eclampsia in 39 (24%) cases; 101 (62%) cases ended in Caesarean sections. Prematurity was the major problem in 52%, and about half of twins were admitted to the Neonatal Intensive Care Unit. A total of 21 (12.5%) babies had congenital anomalies. Multiple pregnancies are associated with increasing risk for the mother and fetus. Preterm delivery increases the risk for the neonates.

Recurrent Miscarriage and Consanguinity among Omani Women: *A case control study*

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The aim of this case-controlled study was to determine the prevalence of unexplained recurrent miscarriages (RM) at Sultan Qaboos University Hospital, Oman and to find out if there was a significant relationship between recurrent miscarriages and consanguinity. The case group included all women with unexplained RM attending the outpatient clinic at Sultan Qaboos University Hospital between July 2006 and April 2012. The control group included women with no history of RM after matching them with the cases for age and parity (case to control ratio was 1:2). During study period a total of 290 women with RM were seen of which 150 (51.7%) had unexplained RM. The consanguinity rate among cases of RM (60.7%) was higher than for the controls (53.7%). Consanguineous couples were 1.39 times more likely to have RM compared to non-consanguineous couples. However, this observed increase in the risk of RM was not statistically significant (95% confidence interval [CI] 0.93–2.07; $P = 0.11$). This study found that more than half of the RM cases were unexplained and there was no significant association between RM and consanguinity.

Aetiology of Recurrent Miscarriage among Omani Women presenting to Sultan Qaboos University Hospital, Oman

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Recurrent pregnancy loss (RPL) is defined as the occurrence of three or more consecutive losses of clinically recognised pregnancies prior to the 20th week of gestation. The well-known aetiologies of RPL include: chromosomal abnormalities (like parental translocations, inversions, sex chromosome mosaicism or ring chromosome); thrombotic tendency (as a result of thrombophilia or immunologic problems); anatomical problems (e.g. congenital uterine malformation, uterine synechiae and fibroids), endocrine factors (e.g. thyroid disease, uncontrolled diabetes mellitus, elevated luteinising hormones or luteal phase insufficiency); infectious causes, and environmental factors (e.g. smoking, alcohol consumption, exposure to chemicals and radiation). Several studies indicate that in more than 50% of cases of RPL the cause of miscarriage is unknown. This retrospective study aimed to investigate the different aetiological causes of recurrent miscarriage among Omani women presenting to the Recurrent Abortion Clinic, Obstetrics & Gynaecology Outpatient Department, Sultan Qaboos University Hospital (SQUH), a tertiary care hospital in Oman between June 2006 and March 2012. Women were included if they had a history of two or more consecutive miscarriages in the first or second trimester. The data were collected from the Hospital Information System (HIS) in SQUH. The sample size gathered during the study period was 290 women. A total of 140 (48%) of patients had an identifiable cause for their RPL while in 150 (52%) of the patients, no cause was identified. The most common cause of RPL was immunological aetiologies found in 35.4% of patients and the least common cause was environmental factors (1.7%). The other aetiological factors implicated were: chromosomal abnormalities (8.3%), anatomical factors (9.4%), endocrine disorders (29.8%), infectious causes (3%) and thrombotic causes (12.71%). This study found that 48% of women had an identifiable cause of RPL, while in 52% of them no causes was identified.

2-Hour Postload Serum Glucose Levels and Maternal Blood Pressure as Independent Predictors of Birth Weight in Appropriate for Gestational Age Neonates in Healthy Nondiabetic Pregnancies

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Increased neonatal birth weight (NBW), often associated with diabetic pregnancies, is a recognised indicator of childhood obesity and future metabolic risk. Predictors of NBW in healthy non-diabetic pregnancies are not yet established. In this study, the association was investigated between the maternal parameters of healthy non-diabetic non-hypertensive Omani women at late gestation and the delivery of appropriate-for-gestational age babies with increased NBW. This cross-sectional prospective study involved 36 healthy mother/infant pairs. Parameters examined included NBW, maternal age, first and last trimester body mass index, weight gain, fasting serum lipids and glucose, 2-hour postload glucose levels and blood pressure. Analysis of variance (ANOVA) and regression analysis methods were used to correlate and predict the effects of the studied variables. Maternal postload-glucose levels were significantly higher in mothers of heavier neonates. ANOVA results indicated that a 15% increase in postload-glucose levels corresponded to a more than 0.5 Kg increase in NBW in the third tertile. NBW correlated positively with postload glucose levels and negatively with systolic blood pressure. Regression analysis showed that the main predictors of NBW were postload glucose levels (B = 0.455, P = 0.003), followed by systolic blood pressure (B = -0.447, P = 0.004), together predicting 31.7% NBW variation. Insulin resistance that normally develops at late gestation directs maternal glucose towards the fetal circulation increasing fetal insulin production; this accelerates fetal growth. This study highlights the fact that increased maternal postload glucose levels and blood pressure, within the normal range, highly predicts the NBW of their babies. These findings may provide the focus for early dietary intervention measures to avoid future risks to the mother and baby.

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Giant Borderline Mucinous Cystadenoma presenting as an Acute Abdomen in Early Buerperium

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The incidence of adnexal masses in pregnancy is 0.5–2 per 1,000 pregnancies. More than 90% of these are benign. About 28% of adnexal masses diagnosed during pregnancy are serous or mucinous cystadenomas and torsion is the commonest complication followed by rupture of the cyst. Mucinous cystadenomas may attain a large size during pregnancy and may also tend to be hormonally responsive. We present a rare case of a giant mucinous cystadenoma presenting as acute abdomen on the 7th postpartum day following a normal vaginal delivery. A 26-year-old, para 3 woman presented to the emergency room seven days after a spontaneous normal vaginal delivery with acute generalised abdominal pain. Examination revealed a huge soft mass with a smooth surface arising from the pelvis and extending to the xiphisternum. The uterus was not separately palpable. Ultrasound and computed tomography scans of the abdomen revealed a very large multiseptate cystic lesion, 40 x 38 cm, occupying the whole abdomen with extensive internal septae. Both ovaries and the appendix were not visualised and the uterus was bulky. At laparotomy, a massive left-sided ovarian tumour c. 38 x 30 cm in diameter was found weighing 4,000 gm; it was mostly cystic with some areas haemorrhagic while the capsule was intact. Peritoneal cytology, left salpingoovariotomy, and right ovarian, peritoneal and omental biopsies were taken and an appendectomy performed. The frozen section showed a left ovarian benign mucinous cystadenoma. However, the histopathology report revealed a left ovarian borderline mucinous cystadenoma with no evidence of microinvasion. The patient is on regular close follow-up in the outpatient clinic. On six month follow-up, the ovarian cancer test CA-125 and the scans were normal. Most adnexal masses are discovered incidentally during pregnancy on routine scans. Giant cysts are found in less than 1% of all ovarian cysts complicating pregnancy. Though there are case reports of mucinous cystadenomas complicating pregnancy, which have been surgically removed during pregnancy or during

Caesarean sections, to our knowledge, this is the first report of a giant borderline mucinous cystadenoma not interfering with normal delivery and presenting for the first time with acute abdominal pain on the 7th postpartum day. Ovarian cysts in pregnancy must be diagnosed early and treated in time to optimise maternal and fetal outcomes.

Evidence for Assessing Effectiveness of Calcium Supplementation in Reducing Risk of Hypertensive Disorders during Pregnancy

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High blood pressure, either with or without proteinuria, is one of the most commonly seen medical problems during pregnancy and complicates c. 5–10% of all pregnancies. It is associated with substantial maternal and neonatal mortality worldwide accounting for up to 40,000 maternal deaths annually. For this reason, interventions to reduce the risk of hypertensive disorders of pregnancy have received significant attention. A relationship between high calcium intake and low incidence of preeclampsia has been noted in Ethiopian women and Mayan Indians women of Guatemala. This hypothesis was tested in several studies which suggested a promising beneficial effect for calcium supplementation—although the impact varies according to the baseline calcium intake of the population and preexisting risk factors. It is possible that calcium supplementation reduces parathyroid release and intracellular calcium and thus reduces vasoconstriction. This review examined the effectiveness of calcium supplementation on reducing high blood pressure risk during pregnancy and so promoting maternal and infant health. Searches were made in the Cochrane Data Base of Systematic Reviews, PubMed and CINAHL and meta-analyses, systematic reviews, randomised controlled trials in English since 2005 were reviewed. Six studies were appraised; two of them were meta-analysis studies with level I evidence, two were systematic review studies with level I evidence and two were randomised control trials (RCTs) with level II evidence. Five out of the six studies attested that calcium supplementation is significantly effective in reducing risk of gestational hypertension as well as risk of pre-eclampsia in pregnant women. The effectiveness of calcium supplementation was greater in high-risk pregnant women and in women with a low baseline calcium intake. These findings are significant enough to guide clinical practice. This author therefore recommends 1–2 mg of calcium tablets daily for high-risk pregnant women and for women with a calcium intake of less than 1,000 mg/day. Patient should be advised to take it 3 hours after taking iron tablets and to avoid taking calcium tablets with food rich in iron or caffeine.

Diet – A New Approach to Treating Endometriosis: *What is the evidence?*

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Endometriosis affects over 70 million women worldwide and is more common than breast cancer and diabetes. Endometriosis is a gynecological disorder characterised by the presence and growth of endometrial tissue outside the uterine cavity. Considering the high prevalence of the disease and its difficult diagnosis and therapeutic management as a result of its complex pathogenesis, which is yet to be fully clarified, a question has been raised as to whether women affected by endometriosis have certain nutritional peculiarities. The purpose of this review was to assess a possible association between dietary components and endometriosis from the existing literature. A search for relevant studies was conducted in CINAHL, Medline plus, Science Direct, SCOPUS and PubMed for the period 2003–2013 using the following search terms: endometriosis and related factors like diet, fat, dairy products, fish, coffee and antioxidants. Twelve articles were included for the review. The findings revealed that there is an association between endometriosis and dietary fat intake, calcium fibre, antioxidants and caffeine. Based on these results, we can suggest that health education should be improved in regard to dietary management in endometriosis in order to improve the quality of life of women with this condition. Nurses and other health professionals in primary care play an essential role in health promotion through disease management and infertility prevention by providing support and much needed information to the patient with endometriosis. There is an urgent need to improve the understanding of the impact of dietary components on the risk of endometriosis in order to modify and/or prevent this prevalent gynaecological disease.

Mature Cystic Teratoma: *A rare histopathologic presentation of mucinous cystadenoma in an appendix in the ovarian teratoma*

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Mature cystic teratomas, conventionally known as dermoid cysts, are common benign ovarian tumours occurring most commonly in women of reproductive age. The majority are composed of disorganised, neoplastic, mature tissues of one or more of the embryonic germ layers: ectoderm, mesoderm, and endoderm. These tumours are the third most common benign tumors next to serous and mucinous cystadenomas and the commonest germ cell tumor. They range in size but the majority is 5–10 cm in diameter and they are filled with thick sebaceous material and hair. In 30–50% of the cases formed teeth are present. The other cellular elements present are skin with its appendages, gastrointestinal epithelium, salivary gland, thyroid tissue, cartilage, bone, muscle, nervous tissue, choroid plexus, etc. We report a 35-year-old woman, para 11 abortion 1, living 10, who underwent a laparoscopic bilateral ovarian cystectomy for bilateral dermoid cysts. Operative findings were a normal-looking uterus and tubes, normal-looking bowel liver and hemidiaphragm. The left ovary was enlarged with a dermoid cyst c. 8 x 7 cm and the right ovary enlarged with a dermoid cyst c. 3 x 4 cm. The postoperative course was uneventful and she was discharged home the next day. The histopathologic examination of the right ovarian cyst showed it was largely lined by keratinising squamous epithelium with skin adnexa in its wall. In one area, prostatic tissue including acinar glands and fibromuscular stroma were noted. Mature glial tissue and ganglion cells are also present. A smaller locule was lined by urothelium with squamous metaplasia. There was a cystic area filled with mucoid material proven histologically to be like an appendix with an epithelial lining of a benign mucinous cystadenoma. The wall of this appendicular structure had an inner and outer muscle coat with intervening nerve bundles and ganglion cells identical to the architecture of a gastro-intestinal appendix. No dysplasia or malignancy was found. The other ovarian cyst was typical of a mature cystic teratoma. To the best of our knowledge, there have been no previously reported cases of finding tissue resembling the appendix in mucinous cystadenoma tumours. In addition, we have reported a rare ovarian neoplasm composed of an admixture of mature teratoma and a benign mucinous cystadenoma in an appendix to the teratoma.

Silent Spontaneous Uterine Rupture in Early Third Trimester of Pregnancy following Myomectomy

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Uterine rupture is a life threatening condition which can affect both the mother and the fetus. Spontaneous uterine rupture during pregnancy following myomectomy is a rare complication but can occur—especially if the uterine cavity was opened during either laparoscopic or abdominal surgery. We report a case of a silent spontaneous uterine rupture in a woman 29 weeks pregnant with a previous myomectomy. It demonstrates the difficulties in diagnosing uterine rupture in a patient with a previous myomectomy presenting with abdominal pain. A primigravida at 29 weeks gestation presented with sudden-onset, continuous right-sided abdominal pain with no vaginal bleeding. One year previously, she has undergone a laparoscopic converted to an open myomectomy where she was diagnosed to have severe endometriosis. She had *in vitro* fertilisation and was on metformin for gestational diabetes. On presentation, she looked sick and in pain with stable vital signs. An abdominal examination showed tenderness on superficial palpation mainly in the right lumbar region, with positive rebound tenderness. The uterine size was appropriate for gestational age and the uterus was relaxed. Cardiotocography was reactive. The scan showed an active viable fetus with no evidence of placental separation. The vaginal examination showed she was not in labour. She received corticosteroids. Investigations showed normal blood counts, amylase, and renal and liver function. The urine dipstick was negative. An ultrasound scan could not visualise the appendix but revealed minimal fluid collected was collected in the pelvis. The patient underwent an emergency diagnostic laparoscopy which revealed that the peritoneal cavity was full of blood clots of about 2,300 ml at both the paracolic gutters covering the omentum and below the diaphragm. There was a linear 6 cm uterine rupture at the fundus toward the left side where the placenta implanted with 5 x 5 cm placental tissue protruding through it which was actively bleeding. The surgery was converted to a midline laparotomy and the fetus was delivered by lower segment Caesarean section. Repair of the uterine rupture site was performed in two layers and homeostasis was secured. The postoperative period was uneventful. Uterine rupture can complicate pregnancies following myomectomy. It should always been suspected if they present with abdominal pain as it can occur without symptoms or signs of maternal or fetal compromise. Any pregnancy after myomectomy should be closely monitored with respect to uterine rupture.

Cesarean Scar Pregnancy with Intrauterine Death at 23 Weeks: *Case presentation and review of the literature*

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Caesarean scar pregnancy (CSP) is a type of ectopic pregnancy which is usually managed in the first trimester, and rarely goes beyond it. We present a case of CSP with delayed diagnosis and intrauterine death at 23 weeks. A gravida 3 women with two previous Cesarean sections (CS) conceived 7 weeks after the last CS. The first ultrasound examination (US) showed a 6-week gestation sac implanted at the CS scar site. A follow-up US confirmed a low implantation only. The US at 17 weeks was normal; however, at 23 weeks intrauterine death was diagnosed. Termination attempts with vaginal, oral, intravenous prostaglandins, oxytocin and transcervical catheter failed, and on reevaluation, the earlier concerns about CSP were noted. At laparotomy, a 20-week-sized mass, covered by large blood vessels and containing the fetus, replaced the lower segment. Attached to the mass above was the uterus, which connected posteriorly to the cervix. The abnormally implanted placenta was removed with difficulty, and bleeding from multiple vessels controlled. The paper-thin lower segment was resected and the uterus closed. The postoperative course was unremarkable. Patients with previous CS should have a first trimester US, with special attention paid to the scar area. If CSP is confirmed, then medical treatment at this time provides the best results, and avoids the serious complications that can be seen later.

Maternal and Fetal Outcomes of Triplet Gestation in a Tertiary Hospital in Oman

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The aim of this study was to describe the fetal and maternal outcomes of triplet gestation and to report on the maternal characteristics of those pregnancies in a tertiary care centre in Oman. A retrospective study of all triplet pregnancies delivered at Sultan Qaboos University Hospital, Muscat, Oman, between January 2009 and December 2011 was undertaken. Over the three-year study period, there were 9,140 deliveries. Of these, there were 18 triplet pregnancies, giving a frequency of 0.2%.The mean gestational age at delivery was 31.0 ± 3.0 weeks, and the mean birth weight was 1,594 ± 460 g. The most common maternal complications were preterm labour in 13 pregnancies (72.2%), gestational diabetes in 7 (39%) and gestational hypertension in 5 (28%). Of the total deliveries, there were 54 neonates. Neonatal complications among these included hyaline membrane disease in 25 neonates (46%), hyperbilirubinaemia in 24 (43%), sepsis in 18 (33%) and anaemia in 8 (15%). The perinatal mortality rate was 55 per 1,000 births. The maternal and neonatal outcomes of triplet pregnancies were similar to those reported in other studies.

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Audit of Vaginal Birth after Caesarean Section

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The Royal College of Obstetricians & Gynaecologists recommends that women with a prior history of one uncomplicated lower-segment transverse Caesarean section (CS), in an otherwise uncomplicated pregnancy at term, with no contraindication to vaginal birth, should be able to discuss the option of planned vaginal birth after CS (VBAC) and the alternative of a repeat caesarean section (ERCS). This prospective re-audit, done between January and June 2013, aimed to compare the practice in South Tyneside Foundation

Trust, UK, against the local guideline of January 2013 (which originated from the RCOG guideline No.45, Feb 2007). The number of patients was 49. A proforma was originated from the guideline. For a standard to be met, we expected 100% adherence to all the criteria. Guidelines: Women with history of CS will be referred to a consultant. The VBAC proforma should document the discussion of the risks and benefits of VBAC *versus* ERCS and regarding the place of birth, the management plan of labour—including, if a preterm labour, an appointment with a consultant at 41 weeks. An ultrasound scan (USS) for estimated fetal weight (EFW) should be offered between 36–38 weeks. A cervical sweep should be offered at 40 weeks with the community midwife. The woman should be seen by the consultant on call at 41 weeks gestation for cervical assessment, sweep and discussion and to decide on the feasibility of induction of labour (IOL) accord¬ing to the Bishop score. In the case of spontaneous labour, an artificial rupture of membranes should be performed 2 hours after starting the partogram, and the subsequent vaginal examinations should be at least 4 hours apart. During labour, continuous fetal monitoring should be done by intravenous access, blood group information should also be obtained. If augmentation is needed, the consultant should be involved. The audit showed excellent adherence to most of the criteria, including consultant booking, performing USS for EFW between 36–38 weeks gestation, and reviewing the woman at 41 weeks in the antenatal clinic if not delivered and offering IOL or ERCS on a case basis. Good adherence was also noted in management of labour. The audit highlighted some areas that needed improvement, mainly in regard to documentation. We recommend that staff should be aware that the proforma should be completed at booking and at 38 weeks.We also suggest to alter the guideline so at the 41-week appointment a consultant or an experienced representative is present to a assess the cervix.

Recurrent Aggressive Angiomyxoma of Vulvula

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Aggressive angiomyxoma is an extremely uncommon mesenchymal tumor of the female pelvis and perineum. The lesion has a tendency for slow growth and local recurrence. The term aggressive emphasises the potential of this tumor to recur locally. Primary clinical diagnosis is rarely made. Hence it is important to understand its clinical presentation and the available modalities of treatment. A 38-year-old, para 3 woman presented with a vulval mass, which had gradually progressed in size over 6 months. Two years previously, she had had a similar mass arising from the vulva for which she underwent excision. On examination a 16 x 10 x 10 cm, soft, non-tender, pedunculated mass was visible arising from right labia majora. The lesion had extended up to the fourchette and right lateral vagina. Wide surgical excision was performed under general anaesthesia. The upper end of the tumour pedicle extended paravaginally up to the right uterine cornu in the pelvis. Primary reconstruction of the wide vulval defect was performed. The histopathology examination revealed recurrent aggressive angiomyxoma. Immunohistochemistry showed high oestrogen and progesterone receptor positivity. Postoperatively, there was wound disruption which healed by secondary intension. Aggressive angiomyxoma is a rare neoplasm of the perineum and lower pelvic soft tissues. It is a slow growing neoplasm occurring almost exclusively in women of reproductive age. Misdiagnosis is common, as the clinical presentation may resemble other benign conditions. The tumour is locally aggressive with a tendency to recurrence although it rarely metastasises. Surgery in the form of wide local excision is the treatment of choice. The definitive diagnosis is made by histopathology and immunohistochemistry analysis. Whenever soft tissue masses in the pelvic and perineal region are encountered in a reproductive-age woman, one should suspect a possible clinical diagnosis of recurrent aggressive angiomyxoma.

Live Fallopian Tube Twin Gestation Diagnosed Preoperatively and Managed Surgically

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A twin pregnancy in the fallopian tube is rare and even rarer is the live gestation of twins in the fallopian tube. We present a case of live twin gestation diagnosed by ultrasound and managed surgically. 36-year-old, gravida 3, para 0, woman with a history of miscarriage and right-sided ectopic pregnancy managed by right salpingectomy, presented to the Emergency Department with severe lower abdominal pain and 9 weeks amenorrhoea. She was vitally stable and there was mild tenderness in the lower abdomen. On bimanual examination there was cervical excitation and the uterus was normal size. Serum beta human chorionic gonadotropin (beta-hCG) was 61,798 IU. Endovaginal ultrasound showed an empty uterus, live twin gestation in the left adnexa and some free fluid in the pelvis. Laparotomy was performed and it confirmed two live embryos in the left ampullary part of the fallopian tube. The mass measured about 5 cm and there were adhesions in the pelvis. Left salpingectomy was performed and she recovered well and was advised to have *in vitro* fertilisation. Live twin ectopic gestation is rare and can be picked up on endovaginal ultrasound with good technology if the physician is experienced. Early diagnosis will help in proper management.

Management of Amniotic Fluid Embolism: *Case presentation*

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An amniotic fluid embolism is a rare obstetric emergency (1/8,000 to 1/80,000 cases) associated with life-threatening complications. It is also known as an anaphylactoid reaction in pregnancy and needs early diagnosis and treatment with early management by a skilled obstetrician. A 41-year-old female, gravida 13, para10, aborted 4, at 39 weeks gestation presented with epigastric pain, blurring of vision, and headache for the previous 2 days. On presentation, the vital signs were normal: blood pressure 135/90, pulse 90/min with no oedema. Laboratory results were within normal limits. On physical examination, the uterus was relaxed, 38 weeks and the fetal heart sounds were 140/min. The vaginal examination revealed the cervix was 2 cm dilated, 1.5 cm long, station at -1. In view of the history and above findings, the patient was admitted for interruption of labour. An artificial rupture of membranes (ARM) was performed. A few minutes after the ARM, the patient collapsed, was non-responsive to verbal and painful stimuli, and no vitals could be recorded. The patient was suspected to have an amniotic fluid embolism, (laboratory investigations later confirmed disseminated intravascular coagulation with haemoglo-bin 5.4 gm %, coagulation profile deranged prothrombin time >130, activated partial thromboplastin time APTT >180, international normalized ratio 10). While undergoing resuscitation, an urgent perimortem lower segment Caesarean section with hysterectomy was performed. The patient required massive transfusions and survived through five cardiac arrests and underwent five laparotomies with multiorgan failure. The patient had serial monitoring of investigations for multiorgan failure. In spite

of these insults, the outcome was successful and the mother and child survived. Both were discharged home after 35 days of hospital stay without any residual damage and with follow-up advice. This rare case of amniotic fluid embolism emphasises the need for the effective management and treatment of patients with suspected amniotic fluid embolism. Urgent decisions and prompt action after consultation with senior doctors are essential. It is important to conduct drills for the management of sudden maternal collapse and be trained in basic life-support skills. A multidisciplinary team approach and aggressive management can potentially improve outcomes in such cases.

Effect of Childbirth Education on Maternal Satisfaction among Primigravid Women

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The objective of the study was to assess the effect of childbirth education on intranatal self-care practices and maternal satisfaction among primigravid women. A quasi-experimental approach with a pretest post-test control group design was used. The study was carried out in the labour room and antenatal ward of Victoria Hospital, Kollam, Kerala, India. A total of 100 primigravid women were recruited by convenience sampling (50 in the control and 50 in the experimental group). Each woman was interviewed using a questionnaire to collect their sociodemographic data and their knowledge on childbirth. The experimental group received two to three sessions of childbirth education which include the process of labour, nutrition during labour, non-pharmacological pain relieving measures (especially breathing and relaxation techniques), common medical procedures and care during labour, bearing down efforts and the initiation of breast feeding. Their childbirth knowledge was reassessed a week before childbirth. On day one after 6 hours of labour, women were asked to self-rate their satisfaction over their childbirth experience using the Maternal Satisfaction Scale. The study revealed that childbirth education has improved the knowledge of primigravid women ($t = 155$, $P < 0.001$). The experimental group had significantly greater maternal satisfaction ($t = 84.20$, $P < 0.001$) compared with the control group. The Pearson correlation coefficient test indicated a positive correlation between knowledge of childbirth and maternal satisfaction ($r = 0.78$, $P < 0.001$). The childbirth education programme appears to be a very promising intervention for promoting maternal satisfaction in primigravid women. Implementing childbirth education as routine during antenatal check-ups will improve women's knowledge and attitudes towards childbirth and subsequent childrearing.

Molar Pregnancies in a Tertiary Care Hospital

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A retrospective descriptive analysis was undertaken of cases at the Royal Hospital (RH), Oman with a diagnosis of gestational trophoblastic disease (GTD) during the period 1st January 2006 to 30th September 2013. All cases registered in the RH as outpatient or inpatient in obstetrics and gynaecology and medical oncology were included and studied retrospectively. Data was collected from electronic hospital records. The total number of deliveries in 7 years was 53,504 and the total number of molar pregnancies was 112 giving an incidence of 2 per 1,000 deliveries. Of the 112 cases, 49 were complete moles, 63 partial moles and 3 had invasive moles. All patients were managed and followed-up according to the hospital protocol. A total of 38.7 % of patients with complete and 6.3 % of patients with partial moles required chemotherapy, while 56% of patients who developed GTD were over 35 years old. The incidence of GTD and partial mole requiring chemotherapy was higher than described in literature. All patients with partial mole should be followed-up more vigilantly. Age more than 35 years was a significant risk factor for developing persistent GTD.

Pregnancy with Anemia and Severe Thrombocytopenia: *A rare presentation*

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A 24-year-old Saudi patient, gravida 3, para 2 and 35 weeks pregnant, was admitted as an emergency case complaining of dizziness and fatigability. She had suffered nausea throughout her pregnancy. She had history of delivery of anencephaly and was a known case of hypothyroidism. Upon admission, she was pale but not jaundiced. Her Hb was 4.9 gm/dL, mean corpuscular volume 82.30 fl (80–101), mean corpuscular hemoglobin 28.80 pg (27–33), retics % 0.18 (0.2–2), her platelet count dropped from 40,000 to 27,000/ mm3 3 days after admission. The lactate dehydrogenase was 5175 and blood pressure 120/80 with no proteinurea; the aspartate aminotransferase and alanine aminotransferase were within normal limits. She received three units of packed red blood cells on admission. Based on the thrombocytopenia, high ESR and splenomegaly, the diagnosis was connective tissue disease and the patient received pulse methylprednisolone for three days, but with no response. Later, the repeated blood film and serum B12 level showed hypersegmented neutrophil and serum B12 (31.9 pmol/L; N = 148–616). The cause of severe thrombocytopenia was vitamin B12 deficiency. So cyanocobalamine injections were started which led, after less than 10 days from starting the vitamin B12 injections, to marked improvement in the platelet count up to 260.000/ mm3, Hb 11.7 g/dL, retics % 10.9. The patient continued her pregnancy and delivered spontaneously a 2,270 gm baby with a good Apgar score. It is concluded that vitamin B12 deficiency should be considered as a possible though rare cause of severe thrombocytopenia.

Conservative Management of Twisted Ischaemic Adnexa in Early Pregnancy

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Adnexal torsion is the fifth most common gynaecological emergency. Diagnosing torsion can be difficult especially in cases of intermittent torsion. Delay in diagnosis can lead to necrosis and loss of the affected ovary compromising the reproductive capacity. The ovarian function can be safely preserved by untwisting and conserving the affected adnexa regardless of the necrotic appearance. A 22-year-old primigravida at 10 weeks of gestation presented with severe left iliac fossa pain associated with nausea of one day's duration. On examination, she was afebrile and tachycardic with marked tenderness in the left iliac fossa. An ultrasound examination showed a live fetus of 10 week's size, an enlarged and oedematous left ovary with a clear cyst of 76 x 63 mm, with flow to the ovary. The right ovary appeared normal. With a provisional diagnosis of left adnexal torsion she was taken for emergency surgery. The left adnexa was found twisted twice with dark purplish discoloration. Torsion was successfully managed by detorsion and cystectomy conserving the tube and

the ovary. Serial scans showed normal sized ovaries with good flow and an appropriately growing fetus. Ovarian torsion usually presents with acute onset pelvic pain, nausea, vomiting, tachycardia and low grade fever. The diagnosis of torsion can be difficult due to the atypical presentation in many cases leading to misdiagnosis or delay resulting in the loss of ovarian function. The ultrasound appearance of torsion can be highly variable. Though abnormal Doppler signals are common, a complete absence of perfusion may be a late sign and the presence of flow within the ovary does not exclude ovarian torsion. Diagnosis of ovarian torsion requires a meticulous approach: a thorough history taking, examination and investigation with a high index of suspicion. Delay in diagnosis can lead to necrosis and loss of the affected ovary thus compromising the reproductive capacity. The clinical appearance of a torted adnexa does not correlate well with the residual function. The affected ovary can be preserved by untwisting, even if ovary appears dark purple or blackish in colour.

Ruptured Rudimentary Horn Pregnancy diagnosed by Preoperative Magnetic Resonance Imaging resulting in Fetal Salvage

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Pregnancy in a rudimentary horn is extremely rare with a reported incidence of 1 in 76,000–150,000. Rudimentary horn pregnancies result in rupture of the horn in 80–90% of cases in the second trimester and only 10% reach term and fetal salvage is very rare. A 31-year-old, gravida 5 para 2 woman at 32weeks of gestation presented with generalised abdominal pain of one week's duration. She was haemodynamically stable with diffuse abdominal tenderness. The uterine contour appeared globular and the height of uterus corresponded to the gestation. A cardiotocogram revealed a reactive fetal heart with no uterine contractions. Vaginal examination showed a long closed cervix. An abdominal ultrasound revealed an appropriately grown fetus, the presence of free fluid and a possible cervical fibroid. An urgent magnetic resonance imaging (MRI) scan suggested pregnancy in a rudimentary horn/abdominal pregnancy. Her Hb dropped from 9 gm/dl to 7.8 gm/dL and an emergency laparotomy was performed. There was haemoperitoneum of 800 ml with clots. The rudimentary left horn harboured the pregnancy with active bleeding from a 1 cm rent in the posterior surface. The unicornuate uterus with the right tube and ovary was normal and connected to the left horn through a fibrous band. A baby girl weighing 1,510 gm with good Apgar score was delivered by incising the horn. The rudimentary horn with the placenta was excised along with left salpingoophorectomy. The patient received 4 units of packed red blood cells, 4 units fresh frozen plasma and 4 units of cryoprecipitate. The postoperative period was uneventful. The histopathology report of the placenta was consistent with placenta increta. Rupture of a rudimentary horn pregnancy is an obstetric emergency which can be life threatening for the mother and the fetus. Preoperative diagnosis of such pregnancies can be quite challenging and they are usually diagnosed intraoperatively. MRI is a very useful diagnostic tool especially in patients presenting in advanced pregnancy. The advent of MRI has resulted in preoperative diagnosis of conditions which were usually diagnosed during laparotomy. A definite preoperative diagnosis helps in counselling the couple and preparing them for appropriate surgical intervention.

Distress during the Menopausal Transition: *A review of literature*

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The menopause is a time in a woman's life when biological and social changes can adversely influence their quality of life. While most women traverse the menopausal transition with little difficulty, others may undergo significant stress. It is a challenge to the healthcare professionals to appreciate and manage the symptoms experienced by women during the menopause. Even in developed countries, there is limited focus on menopausal related research and hence it is challenging to meet the demands of menopausal women. The purpose of this review was to assess the literature concerning the menopausal symptoms experienced by women in various countries worldwide. A database search was conducted in CINAHL, PubMed, Google Scholar, and Medline for the period 2007–2013 using the specific terms "menopause", "perimenopause", "menopause symptoms", "midlife and quality of life". A total of 15 studies were identified which met the inclusion criteria. The results revealed that the burden of menopausal symptoms experienced by women worldwide, which were vasomotor, somatic and urogenital, were found to be affecting their quality of life. There is a great diversity across cultures both in symptom frequencies and ways of coping with them. There is a need to explore the current perceptions of menopause among women, the prevalence of menopausal symptoms and the coping strategies adopted by them. Based on these findings, healthcare professionals can use various culturally-relevant approaches to educate and treat women with menopausal symptoms and concerns. Successful strategies for coping with the menopause across cultures are self-care practices, education, having an accepting and positive attitude toward life transitions, and medication including herbs. With appropriate counselling, health information and an understanding of the menopause and its dimensions, menopause can become a time of beginning, rather than an end.

A Rare Case of Twin Pregnancy with a Live Fetus and Co-Existing Hydatidiform Mole

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A hydatidiform mole co-existing with a normal live fetus in a twin pregnancy presents a significant management dilemma for the physicians in charge of the patient. This is an extremely rare phenomenon with the incidence ranging from 1 in 22,000–100,000 pregnancies. A gravida 3, para 2, woman at 13 weeks gestation was diagnosed with a twin pregnancy on ultrasound scan. One fetus was normal with its placenta covering the os, and the other one was a molar pregnancy. Both ovaries were enlarged with large theca lutein cysts. The serum beta human chorionic gonadotropin (hCG) level was 1386570.0 IU/L. After detailed counselling, the couple opted to continue the pregnancy with close follow-up. The patient presented at 17 weeks of gestation with vaginal bleeding, tachycardia and a significant drop in haemoglobin levels. After placing uterine artery balloon catheters, a hysterotomy was performed. Molar tissue weighing 1,040 gm was evacuated with a fetus weighing 105 gm and a normal placenta of 65 gm. The histopathology report confirmed a complete hydatidiform mole with a co-existing normal fetus. Her serum beta hCG level returned to normal three months after the surgery and, one year later, there was no evidence of any persistent trophoblastic disease. In dizygotic twins with one hydatidiform mole, the live fetuses are chromosomally normal and potentially viable. Traditionally, termination of pregnancy was indicated due to

the very high risk of complications such as haemorrhage, early onset pre-eclampsia, thyrotoxicosis and an increased risk of persistent trophoblastic disease. In the past decade, however, some authors have supported the option of conservation under strict hospital-based observation and follow-up which has resulted in a few live births. Clinicians should rely on thorough counselling and close follow-up of the patients, being ready to deal with any emergency situation as and when it arises while managing this rare clinical entity. As seen with our case, conservative management with close surveillance in a tertiary care centre can be offered to patients with this rare presentation, although the chances of delivering a live fetus after the period of viability is low.

Idiopathic Intracranial Hypertension: *An unusual cause of postpartum headache*

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Headache is a common symptom in the postpartum period affecting up to 39% of parturients. Common causes of postpartum headaches include tension headaches, migraine, pre-eclampsia/eclampsia, post-dural puncture headache, cortical vein thrombosis, subarachnoid haemorrhage, space-occupying lesions, cerebral infarction and meningitis. Idiopathic intracranial hypertension (IIH) or benign intracranial hypertension (BIH) is a rare condition with the triad of headache, papilloedema and elevated intracranial pressure in the absence of focal neurologic deficit/pathology. The diagnosis is made when the lumbar cerebral spinal fluid (CSF) opening pressure is >25cm of water. A 32-year-old, para 1, woman underwent Caesarean section for prolonged second stage of labour under spinal anaesthesia. She was discharged on the fourth day but readmitted on 18th day with severe headache. A detailed history revealed generalised headache with no associated vomiting, convulsions visual or hearing disturbances. The headache was not affected by changes in posture or with straining. The patient had previously had infrequent episodes of headache. On examination, she was afebrile, normotensive and complete blood counts, urea electrolytes, liver function tests and C-reactive protein were normal. Anti-nuclear antibody, anti-nuclear cytoplasmic antibodies and anticardiolipin antibodies were negative. A fundoscopic examination revealed papilloedema. A computed tomography scan of the brain was normal with no signs of venous thrombosis or intracranial lesions. A lumbar puncture showed clear CSF with opening pressure >40cm of water; cytology, biochemistry and viral serology tests were negative; hence, the diagnosis of IIH was made. She responded well to acetazolamide and mannitol. To date, the patient is on regular follow-up to date with a neurologist and the asymptomatic papilloedema has subsided. IIH is a rare cause of postpartum headache and needs to be diagnosed by exclusion. Pregnancy, obesity, polycystic ovarian disease, certain drugs and hormones can promote or worsen the condition. No adverse effect on the fetus is reported. The aim of treatment is to relieve pain and prevent visual loss, as blindness may occur in up to 10% of cases. There is no convincing evidence that either the vaginal or Caesarean mode of delivery is advantageous in cases of IIH. Regional anaesthesia is a better choice than general anaesthesia for Caesarean delivery as general anaesthesia can increase CSF pressure. IIH should be considered as one of the differential diagnoses of postpartum headache.

Teenage Pregnany in Oman: *Maternal and neonatal outcomes*

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Adolescents between 15–19 years give birth to approximately 13 million children annually; over 90% of these births occur in low-income countries. Teenage pregnancy has major social and financial implications. The young mothers are financially dependent, their school drop-out rate is high and the possibilities of further resumption of education usually remote. Teenagers face greater risks of pregnancy complications than their adult counterparts. Conflicting results regarding maternal and neonatal outcomes are presented by several studies including an increased incidence of maternal and perinatal mortality, preterm birth, pre-eclampsia, cephalopelvic disproportion, low birthweight, anaemia and an increased risk of abortion-related morbidity and mortality. This study aimed to evaluate the obstetric and perinatal outcome in teenage pregnant Omani girls at a tertiary care University hospital in Oman. A retrospective case control study was conducted at the Sultan Qaboos University Hospital, Muscat, between 2007 and 2011. All teenage mothers aged 13–19 years at the time of delivery were the study group. The following two consecutive deliveries in the age group 20–30 years served as controls for each case. Data retrieved from the computerised hospital database and maternity register were analysed using the Statistical Package for the Social Sciences, Version 17. A *P* value <0.05 was considered statisti-cally significant. Maternal, fetal and neonatal outcomes were compared. The incidence of teenage pregnancies was 2.2%. A total of 252 teenage mothers formed the study group and 504 mothers, the controls. There was a statistically significant increase in anaemia, pre-eclampsia, eclampsia, preterm premature rupture of membranes (PPROM) and low birthweight in the teenage group. In the control group, gestational diabetes mellitus and polyhydramnios were significantly increased. Teenage pregnancy is an important social and public health issue in developing countries and also in Oman. An increasing incidence in recent years could be attributed to the early onset of puberty, early sexual activity in girls and relative lack of awareness of birth spacing. Adolescent marriage is still a common practice in some countries including Oman. Conflicting results have been published regarding maternal and neonatal outcomes. Adolescents are also at increased risk of abortion-related morbidity and mortality due to unsafe abortion practices. Teenage pregnancy in Omani girls is associated with anaemia, pre-eclampsia, low birth weight and PPROM. Creating public awareness and increasing the health education of girls would optimise outcomes.

Intramural Ectopic Pregnancy following IVF-ET Successfully Managed with Systemic Methotrexate

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Intramural ectopic pregnancy is one of the rarest forms of ectopic gestation, characterised by a gestation within the uterine wall completely surrounded by the myometrium and separated from the uterine cavity and fallopian tube. To date, less than 30 cases have been reported in the literature. Intramural ectopics are difficult to diagnose, may not have unusual presenting symptoms, rarely go beyond 12 weeks gestation and if they do, may present with bleeding and uterine rupture between 11–30 weeks gestation often necessitating a hysterectomy. We present a case of intramural ectopic pregnancy following *in vitro* fertilisation and embryo transfer (IVF-ET) diagnosed early by ultrasound and successfully managed with systemic methotrexate. A 28-year-old Omani woman with primary infertility underwent IVF-ET at another centre. She presented at 7 + weeks gestation, asymptomatic for follow-up. The pelvic examination revealed an 8-week sized uterus. A vaginal ultrasound scan showed an endometrial thickness of 16 mm, an intramyometrial

gestational sac in the fundus, fetal pole crown-rump length = 7 + 4 weeks, no cardiac activity. Magnetic resonance imaging confirmed the findings of a sac within the fundus 4.4 x 4.6 cm with marked thinning of the fundal myometrium. Serum beta human chorionic gondatropin (hCG) was 20,797 iu/L. She was treated with two doses of systemic methotrexate one week apart. The beta-hCG levels regressed to normal in 7 weeks and serial scans showed the intramural ectopic decreasing in size with no vascularity. The patient is well to date and has resumed normal periods. IVF-ET is associated with an increased risk of intramural ectopic pregnancy. Early ultrasound diagnosis and intervention can preserve fertility.

An unusual presentation of Gartner's duct cyst

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Gartner's duct cyst is a rare condition consequent to an unfinished disappearance of the mesonephric duct in females. Usually, they present as a lateral vaginal wall cyst in the upper third of vagina. We report the case of a 27-year-old woman who was referred with a suspected an anterior vaginal wall tumour. Clinically and radiologically the tumour had solid and cystic components and was infiltrating to the anterior vaginal wall. The histopathological examination after excision of the tumour revealed a Gartner's duct cyst. The clinical, radiological and histopathological features are presented and correlated with a literature review.

Controversies on Abortion and the Period of Ensoulment: An islamic perspective

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A 16-week pregnant Muslim woman was informed that the ultrasound scan was showing spina bifida, the laboratory results, showing raised maternal serum alpha-fetoprotein, confirmed the diagnosis. The child would have various complications and most probably need medical care for life. With the consent of her husband she decided to terminate the pregnancy. Her decision sparked controversies among the Muslim clerics of her community. There were those who were against abortion after 40 days from conception, for whatever reason, unless the life of the mother was seriously threatened. In their opinion "ensoulment" occurs at about 40 days after conception. Hence, abortion after "ensoulment", as in this case, is a serious crime, the perpetrator being liable to pay diya (full blood money). A second group of clerics held contrary views regarding the period of "ensoulment". In their opinion "ensoulment" occurs at about 120 days after conception. Therefore, the clinical results of the diagnosis justified the abortion. The third group was of the opinion that the clinical picture presented above is not convincing enough to justify abortion. The fetus has a right to life, and destroying the 16-week-old fetus holds the parent liable to pay 1/10 of the full diya referred as al ghurrah. This paper first reviews the philosophical and theological arguments of the pro-life group which emphasises that human life should be preserved from conception regardless of circumstances involved, giving absolute priority to the life of the fetus over the life of the mother. Second, the paper examines the pro-choice arguments that a woman should have the right to control her body to the point of absolutising her right over the natural phenomenon of development of the fetus. Third, the paper examines the views of the "delayed ensoulment theory" and the "immediate ensoulment theory" and their correlation to the beginning of life concept—and how theologians apply the moment of ensoulment as the cut-off point in determining the legislation on abortion. Finally, the paper expounds on the three views presented above of the 16-week pregnant woman who terminated her pregnancy for medical reasons. What is the Islamic position regarding different categories of abortion, the woman's autonomy and 'fetal rights' or the fetus as a patient?

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Rectovaginal and Bladder Involvement in Stage Four Endometriosis

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We report a case of stage four endometriosis with rectovaginal and bladder endometriosis which was managed operatively. A 31-year-old nulliparous woman known to have stage four endometriosis with bilateral endometriomas was followed-up and managed to relieve her symptoms and improve her fertility. She presented with history of primary infertility, postcoital bleeding and dysparunia in addition to constipation and bloody stools. She was found to have microscopic haematuria. Symptoms improved after receiving the gonadotropin-releasing hormone agonist (GnRH) agonist, triptorelin. The patient underwent laparoscopy, laparotomy, bilateral ovarian cystectomy, adhesiolysis, hysteroscopy, colonoscopy and cystoscopy with retrograde pyelogram and stenting of the right ureter. The pathology of the bladder and rectal mucosal biopsies confirmed endometriosis. Advanced endometriosis requires a multidisciplinary approach. Colonoscopy and cystoscopy are indicated in cases where patients are symptomatic or have evidence of rectovaginal septum endometriosis on magnetic resonance imaging.

Pregnancy Outcome following Bariatric Surgery

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Obesity is defined as a body mass index (BMI) of ≥30 Kg/m^2 and is a growing health problem globally. About 25% of women are affected by obesity. Pregnancy with obesity has increased the incidence of complications like gestational diabetes mellitus, gestational hypertension, pre-eclampsia, fetal macrosomia, Caesarean deliveries and anesthesia-related complications. With bariatric surgery and subsequent weight loss, these morbidities related to obesity can be reduced. We report two cases of pregnancy following bariatric surgery. A 39-year-old woman, gravida 3 para 2 both vaginal deliveries, had gastric stapling and abdominoplasty for cosmetic purpose. Her BMI prior to surgery was 32 and dropped to 22 after surgery. She became pregnant two years after surgery. Throughout the pregnancy she had vomiting and a feeling of fullness but no electrolyte imbalance. The weight gain during pregnancy was 5 Kg. Serial scans showed a small for gestational age fetus. At 37 weeks, she delivered a baby girl of 2.63 Kg with a good Apgar score. A 28-year-old woman, gravida 4, para 3, with two previous lower segment Caesarean sections had had laparoscopic gastric banding 8 years previously for morbid obesity. Her BMI prior to surgery was 47 which then dropped to 35. This was her second pregnancy after bariatric surgery. The weight gain during pregnancy was 5.5 Kg. She developed gestational diabetes and was on metformin. She had difficulty in eating,

shortness of breath and vomiting requiring intravenous fluids throughout the pregnancy. She had an elective Caesarean section at 38 weeks and delivered a baby girl of 2.790 Kg with a good Apgar score. An increasing number of women in the reproductive age group are undergoing bariatric surgery for obesity. Complications associated with obesity and diabetes can be reduced after bariatric surgery. With nutritional supplements and careful monitoring, pregnancies following bariatric surgery can be managed well. Delaying pregnancy for 12 to 18 months is advisable after weight-loss surgery. This minimises the complications related to nutrition, miscarriage, preterm labour and lower mean birth weight. Pregnancy after bariatric surgery is safe and not associated with an adverse perinatal outcome. Such pregnancies should be managed in a multidisciplinary setting with proper nutrition and prenatal vitamin supplementation.

Angular Ectopic Pregnancy Diagnosed Intraoperatively at 33 + weeks of Gestation

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Interstitial pregnancy is a major therapeutic challenge which can have fatal consequences if not diagnosed in time. It accounts for 2–4% of all ectopic pregnancies. We report the case of a gravida 2, para 1 woman who was diagnosed with placenta previa and was being followed-up both in the Armed Forces Hospital and a Ministry of Health hospital. She underwent a lower segment Caesarean section at 33+ weeks due to poor fetal Doppler results. Intraoperatively, the patient was diagnosed as a case of angular pregnancy which had slowly ruptured and was growing into the abdominal cavity with a normal uterus lying separately lower down in the abdominal cavity. This is an extremely rare finding as there are only three reported cases in the literature of angular pregnancies reaching such an advanced stage gestation. Clinicians should be aware of the difficulties they might encounter in dealing with such cases and the benefit of early diagnosis and careful prenatal care as the condition can have disastrous outcomes. The patient even had a magnetic resonance imaging scan at 27 weeks of gestation due to chronic pelvic pain but no definitive diagnosis could be made at that time. This condition and its management are a surgical challenge.