

incomplete miscarriage usually require subsequent surgical management.

**Methods:** All women in the Viewpoint system in our institution from 01/01/2012 to 31/12/2016 with 'incomplete miscarriage' in the conclusion were identified. Images were viewed to collect information on vascularity, volume of RPOC, type of ultrasound machine and machine Doppler settings. Clinical management, number of subsequent ultrasound scans, days to resolution and subsequent need for surgery were obtained from the electronic clinical records.

**Results:** Three hundred and twenty of 567 women (56.4%) with incomplete miscarriage had vascular RPOC. 50% of those with vascular RPOC and 7% of those with nonvascular RPOC had unsuccessful expectant management and required surgical intervention [OR 6.9 (95% CI 4.6–10.4)  $p < 0.0001$ ] after adjusting for volume of RPOC]. Expectantly managed women with vascular RPOC had 22% more ultrasound scans than women with nonvascular RPOC. The positive correlation between vascularity and surgical management was not confounded by the Doppler setting or brand of machine.

**Discussion:** Increasing volume and vascularity of RPOC was associated with surgery, but it is unclear if this was due to a higher failure of nonsurgical management or clinician preference. It may be necessary to counsel women with vascular RPOC that surgical management is often required. This could reduce the number of ongoing ultrasound scans and early pregnancy clinic visits.

### 100 Complications – A Personal Series of Incontinence and Prolapse Surgery

H WARD

*Centre for Women's Reproductive Care*

**Introduction:** Surgical audit has been strongly advocated and now mandated by the recent Senate enquiry into transvaginal mesh (TVM) use. Complication rates have led largely to most TVMs being withdrawn from the market with the exception of a few mid-urethral slings

**Methods:** One hundred complications are presented according to the IUGA classification system Categories 1–7 on 914 patients undergoing 1140 procedures over 128 months between September 2006 and April 2017. A single surgeon with public and private case load performed the surgery and conducted follow-up for 12 months. TVM meshes used are individually reported, and combined surgeries assigned attributable responsibility.

**Results:** One hundred complications are presented. Erosion total 30/914 (3.28%) – reoperation/excision rate 5/914 (0.54%). Seven of 52 cases occurred with concomitant hysterectomy. Category 4 – urinary tract occurred in 17/785 cases involving anterior wall or vault. –10/293 related to mid-urethral sling, four needed division, six had prolonged catheterisation. 7/492 of the anterior compartment TVM, sustained 3 cystotomies, three retention and one fistula. One of 574 TVM cases had a posterior late enterotomy noticed at 1 yr postsurgery (Category 5). Musculoskeletal pain was experienced in 11 cases Category 6 :1/286 transobturator sling groin pain, and 10/574 (1.74%) cases of buttock pain after sacrospinous fixation. Five had immediate postsurgical transrectal release, three had eventual explants, two had reoperation to excise lateral arms. Seven of 914 patients had systemic compromise – three with hysterectomy, all recovered well.

**Conclusion:** Complication rates in this series compared favourably with published data.

### The Vaginal Microbiome during Pregnancy and Its Impact on Preterm Birth – A Systematic Review

K WICIK

*University of Notre Dame*

**Introduction:** Ascending infection from the vagina into the amniotic space is one factor involved in the aetiology of preterm birth (PTB). Identifying bacteria with culture-independent methods has broadened our understanding of the vaginal microbiome. The objectives of this study were as follows: 1) to identify the bacteria in the vagina during pregnancy using 16S rRNA methods; 2) investigate associations between the presence of bacteria and PTB or full-term birth (FTB); and 3) to study the composition of bacterial taxa by trimesters and pregnancy outcome.

**Methods:** A systematic review was performed in PubMed, MEDLINE and EMBASE between 01 Jan 2006 and 08 Dec 2016. Inclusion criteria were studies performed in humans, included pregnant data and used 16S rRNA culture-independent methods with primers. Data collected included sample size, race, swab collection site, methods of bacterial identification and taxa found.

**Results:** Of 412 studies screened, 18 met the inclusion criteria. *Lactobacillus* and *Prevotella* species were the most prevalent of the 263 different bacterial taxa identified in the vagina. The results of this review did not identify taxa uniquely associated with PTB or FTB, or unique populations present at different trimesters. This review highlighted significant heterogeneity between different study methods, data collection and results.

**Discussion:** The relationships between bacteria identified with 16S rRNA methods in the vagina and PTB, FTB and trimesters were unclear based on analyses performed on these data. Further studies that directly address the topic, account for risk factors, and take samples from the same women longitudinally throughout pregnancy would help to further explore this topic.

### 'If they Don't ask, I Won't tell': Perinatal Mental Health Screening for Women of Refugee Background

S WILLEY<sup>1</sup>, R BLACKMORE<sup>1</sup>, M GIBSON-HELM<sup>1</sup>, R ALI<sup>2</sup>, L BOYD<sup>3</sup>, J MCBRIDE<sup>2</sup> and J BOYLE<sup>1,4</sup>

<sup>1</sup>Monash Centre for Health Research and Implementation (MCHRI), <sup>2</sup>Refugee Health & Wellbeing Service, Monash Health, <sup>3</sup>Executive Director, Nursing and the Cabrini Institute and <sup>4</sup>Department of Obstetrics and Gynaecology, Monash Health

**Introduction:** Women of refugee background have a higher risk of perinatal mental health illness due to the refugee experience and resettlement stressors. In 2016, we established a perinatal mental health screening programme at a dedicated refugee antenatal clinic in Melbourne, Australia. The Edinburgh Postnatal Depression Scale and a psychosocial assessment were administered in common refugee languages using a digital platform. Score-based, language appropriate information for women and management guides for midwives were generated immediately. Codesigned, refugee-appropriate referral pathways were provided. We aimed to assess the feasibility and acceptability of the perinatal mental health screening programme from the perspective of women of refugee background.

**Method:** One focus group (five participants) and semi-structured interviews (n = 9) were held in April/May 2018 with

Afghan and Burmese women. Audio-recorded narratives were transcribed verbatim, prior to thematic analysis.

**Results:** Findings indicate women value the screening programme, it makes them feel cared for by the maternity healthcare professionals which in turn allow women to feel confident in disclosing sensitive information. Women support the programme and would recommend it to others in their community. Improvements such as the availability of an audio version of screening measures are considered to be a vital component especially for women with low literacy. Programme refinement and scale-up will be made based on these results.

**Discussion:** Perinatal mental health screening in pregnancy is feasible and acceptable to women of refugee background. Screening enables discussion of sensitive issues, early intervention and referral. This evaluation has identified key components required for a sustainable and effective programme applicable across maternity services.

### **Fertility Preservation for Serous Borderline Ovarian Tumour**

K WILSON<sup>1</sup> and A SAYASNEH<sup>1,2</sup>

<sup>1</sup>*Guys and St. Thomas Hospital and* <sup>2</sup>*Department of Surgery and Cancer, School of Medicine, Imperial College London, Hammersmith Hospital*

Twenty-one-year-old woman diagnosed with a serious borderline ovarian tumour (BOT). Full surgical staging was performed including a right salpingo-oophorectomy and preservation of the uterus and the left fallopian tube and ovary. She was disease-free for 4 years until she developed a recurrence in the left ovary. Intraoperative ultrasound was performed to differentiate the 2 cm recurrence from the corpus luteum and to try to preserve the maximum ovarian tissue possible. The pelvis was filled with normal saline to provide an acoustic window. A transvaginal ultrasound was performed while laparoscopic identification of the recurrent BOT was possible. Less than 12 months later, surveillance imaging suggested a second recurrence in the

preserved ovary. MDM decision was made to remove the remaining ovary. Intraoperative findings were keeping more with adhesions and an inclusion cyst. All biopsies taken were negative of BOT. The ovary was preserved for a second time, and this woman successfully conceived a pregnancy. This case highlights the advantage of intraoperative ultrasound to lineate the resection margins for small recurrent BOT.

### **Original Research: miRNA Expression in Tubal Ectopic Implantation**

T ZANDANOVA<sup>1,2</sup>, M HILL<sup>1</sup> and W LEDGER<sup>1,2</sup>

<sup>1</sup>*UNSW and* <sup>2</sup>*The Royal Hospital for Women*

**Introduction:** Fallopian tubes play an important role in early postovulatory reproductive process. Ectopic tubal pregnancy is an increasing health risk of women worldwide and continues to be the most common cause of first trimester maternal mortality and morbidity.

**Methods:** An open access human Fallopian tube biobank was established to study the molecular basis of human embryonic implantation and implantation failure, to investigate trophoblast invasion and a model for carcinogenesis and to investigate abnormal placentation leading to placental disorders. Global miRNA expression profile of Fallopian tubes bearing ectopic pregnancy was compared to intact healthy Fallopian tubes in order to elucidate molecular interactions and signalling pathways of fetal–maternal interface.

**Results:** Statistically significant differential expression of individual miRNAs and pregnancy-associated clusters of miRNAs were observed. Analysis of differential miRNA expression highlighted deregulation in immune modulation at the site of ectopic pregnancy implantation in Fallopian tubes, whereas biological events related to inflammatory processes were most prominent at the parts of Fallopian tube away from implantation.

**Discussion:** The results of this study suggest significant alteration in signalling mechanisms of fetal–maternal interface in ectopic tubal pregnancy.