Does the presence of vascularity of retained products of conception ultimately necessitate surgical management?

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Introduction
Can we avoid multiple scans, Early Pregnancy Assessment Service (EPAS) appointments and days off of work based on the initial incomplete miscarriage Ultrasound Scan (USS)? We set out to prove that the presence of vascularity on the initial incomplete miscarriage USS will signal ultimate requirement of surgical intervention.

Method
Retrospective cohort study at RPAH from 01/01/2012 to 31/12/2016. Women with incomplete miscarriage by USS. Viewpoint images re-evaluated to confirm presence of feeding vessel and vascularity of Retained Products of Conception (RPOC). Electronic medical clinical records perused for subsequent scans, days to resolution and need for surgery.

Results & Discussion
When vascular retained products were managed non-surgically, 46% of women eventually required surgery, compared with only 10% when the RPOC were not vascular (P <0.0001) (Figure 1). Vascularity was associated with surgical intervention after adjusting for volume of RPOC [OR 6.9 (95% CI 4.6 to 10)]. In the vascular RPOC group of women who initially chose expectant or medical management but then ultimately required surgical management for resolution the average volume of RPOC was 11.3mL, the average number of scans 2.3 and the average number of days to resolution 15 (with the longest being 60 days). In the non-vascular RPOC group of women who did not opt for surgery but then ultimately required surgical management for resolution the average volume of RPOC was 21.1mL, average number scans 2.3 and average days to resolution 17.2 (longest being 46 days).

Conclusion
Increasing vascularity of RPOC increases the likelihood of ultimately requiring surgery. This information is vital in the counselling of women after an ultrasound diagnosis of incomplete miscarriage and may avoid prolonged unsuccessful expectant management, repeated early pregnancy clinic visits as well as decreasing time and cost to both the women and the service providers.