

Correlation of sonographic and histopathological findings in women undergoing surgical management for retained products of conception

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Introduction

- Retained products of conception (RPOC) is a common complication following first trimester pregnancy loss, for which many women undergo surgical management by suction curettage [1,3].
- RPOC is often diagnosed by ultrasound (US), however the sonographic features of RPOC are non-specific, with previous studies reporting very high false positive rate of ultrasound in diagnosis of RPOC (25-33%) [1-3].

Method

- We conducted a retrospective audit of women who underwent suction curettage for RPOC at our hospital following a first trimester pregnancy, where RPOC was suspected on ultrasound.
Excluded: surgery for clinical emergency (heavy bleeding/ infection, gestational sac on US, suspected molar pregnancy)
- RPOC was confirmed by the presence of chorionic villi on histopathology and reported ultrasound features were compared between the confirmed RPOC and no RPOC groups.

Results

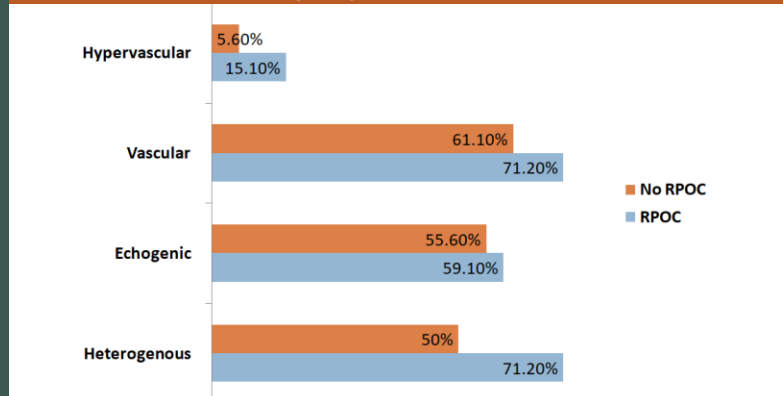
- 84 cases were identified over a retrospective period of 24 months.

- The presence of chorionic villi on histopathology confirmed RPOC in **78.6%** of these cases [Table 1].
- A mass in the endometrial cavity was the most sensitive sonographic feature of RPOC (98.5%), but was not specific (16.7%). A separate endometrial thickness was not commonly reported.

Table 1: Demographics, RPOC confirmed vs no RPOC groups

	RPOC (n=66)	No RPOC (n=18)
Average maternal age	31.6 years	30.6 years
Average time from US to surgery	3.98 days	2.3 days
Average gestation	8.1 weeks	8.1 weeks

Figure 1: Sonographic features of endometrial mass in RPOC confirmed vs no RPOC groups



- Endometrial mass was significantly larger in the RPOC group than the non-RPOC group ($p < 0.01$), with all non-RPOC measuring $< 30\text{mm}$, and was more commonly described as either heterogenous or echogenic in the RPOC group (90.9%, $p = 0.01$) [Figure 1].
- Vascularity was common in both groups with hypervascularity demonstrating a specificity of 93.3%.

Conclusion

- The presence of a large, hypervascular endometrial mass is suggestive of RPOC, but there is low positive predictive value of ultrasound alone in diagnosis of RPOC.
- Clinicians need to be aware of the limitations of sonography in the diagnosis of RPOC, with the need to balance the surgical and anaesthetic risks of suction curettage with the potential complications of persistent RPOC.

References

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