

EP01.22 : Sonographic Predictors of Endometrial Pathology Requiring Hysteroscopy in Infertile Women

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Objectives

To identify ultrasound features that predict endometrial pathology requiring hysteroscopy in infertile women and to evaluate their diagnostic performance for guiding clinical management.

Methods

Retrospective study (2018–2024) including **406 infertile women** who underwent transvaginal ultrasound and diagnostic hysteroscopy. Hysteroscopy was the **reference standard**. Sonographic features assessed included focal endometrial thickening, intracavitary lesions, endometrial heterogeneity, irregular endometrial–myometrial junction, and increased Doppler vascularity. Diagnostic performance was evaluated individually and in combination.

Results

Endometrial pathology was confirmed in **251 women**, mainly **polyps (38%)** and **submucosal fibroids (17%)**. **Intracavitary hyperechoic lesions** showed the best diagnostic performance. Focal endometrial thickening and an irregular endometrial–myometrial junction were also strongly associated with pathology, while endometrial heterogeneity and increased vascularity were less specific. Normal ultrasound findings showed a high **negative predictive value (92%)**. Combining ≥ 2 abnormal features further improved diagnostic accuracy.

Conclusion

Structured sonographic evaluation reliably identifies women who require hysteroscopy, optimizes patient selection, and reduces unnecessary invasive procedures. This approach can guide infertility management in a tertiary care setting.