EP33.03 Comparison of 2D ultrasound with power Doppler, saline infusion sonohysterography, 3D ultrasound and hysteroscopy in diagnosing intrauterine lesions

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Introduction
A non-invasive and more cost efficient modality can be done in low resource settings with the availability of advanced ultrasound technology

Objectives
To compare diagnostic modalities: 2DTVS with power Doppler 2DSIS, 3DTVS and hysteroscopy with histopathology in the diagnosis of intrauterine lesions.

Method
• cross-sectional prospective study
• women who underwent 2DTVS with power Doppler and 3DTVS.
• 2DSIS were also done prior to hysteroscopy.
• Specimens were sent for histopathologic examination.
• Descriptive statistics such as frequencies and percentages, and tests for association using Chi square and Fisher exact Tests were used. The sensitivity, specificity, positive predictive value, and negative predictive value of 2DTVS with power Doppler, 2DSIS, 3DTVS and hysteroscopy versus histopathology were determined.

Results
• sensitivity of 2DTVS with Power Doppler, 2DSIS, 3DTVS and hysteroscopy were 93.2%, 95.5%, 100%, 95.5%, respectively.
• specificity of the modalities in the diagnosis of endometrial polyps were: 90.9% for 2DTVS with power Doppler, 81.8% for 2DSIS, 77.3% for 3DTVS and hysteroscopy. The PPV for 2DTVS with Power Doppler, 2DSIS, 3DTVS and hysteroscopy were 95.3%, 91.3%, 89.8%, and 89.9%, respectively.
• NPV for 2DTVS with Power Doppler was 87.0%; for 2DSIS was 90.0%; for 3DTVS was 100%; and hysteroscopy was 89.5%.
• sensitivity, specificity, PPV, NPV in the diagnosis of submucous myomas were: for 2DTVS with power Doppler – 84.2%, 97.9%, 94.1%, 93.9%; 2DSIS- 89.5%, 97.9%, 94.1%, 93.9%; 3DTVS – 84.2%, 97.9%, 94.1%, 93.9% and Hysteroscopy – 84.2%, 97.9%, 94.1%, 93.9%.

Conclusion
• This study showed that 2DTVS with power Doppler, 2DSIS, 3DTVS can be used in the detection of intrauterine lesions.
• The 3DTVS is significantly comparable with 2DSIS and hysteroscopy in characterization and localization of intrauterine lesions thus can be used in preoperative planning prior to hysteroscopy.