Saline-infusion *sonoPODography*: a novel technique to visualise and understand the pouch of Douglas

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Introduction

- Endometriosis can affect the pouch of Douglas (POD) and posterior compartment.
- Knowledge of disease severity is relevant and valuable to both the patient and surgeon; essential to optimise surgical planning.
- TVS can directly visualise disease in posterior compartment; sliding sign can detect POD obliteration.
- Fluid may provide acoustic window into posterior compartment.

Hypothesis

- SonoPOD, which adapts sonohysterogram, may advance the diagnostic accuracy of TVS in the detection of posterior compartment disease, particularly of the USLs and various states of POD obliteration.

Methods

- Sixteen sequential patients.
- Prospectively observed through routine SIS or HyCoSy procedures.
- 10-20 mL of saline is used to assess the cavity.
- 10-20 mL of aerated gelofusion with saline to assess tubal patency.
- POD assessed for evidence of fluid collection, obliteration, intra-abdominal adhesions, and fixed pelvic structures. Using 3D capabilities, volumetric data was collected and the POD was reconstructed.

Results

- SIS and HyCoSy were indicated in 6 and 10 patients, respectively.
- 9 of 16 (56.3%) patients had fluid collection in the POD.
- 3D volume analysis ranged from 1.01 to 10.42 cm³, with a mean of 6.74 cm³.
- Intra-abdominal adhesions were identified in the POD of 3 patients with POD fluid collection.

Conclusion

- We believe sonoPOD is a novel technique that can be used to visualise and better understand the POD.
- We believe sonoPOD will become a reliable method to visualise USLs.