Hysterosalpingo-Contrast Sonography and saline infusion scan reporting

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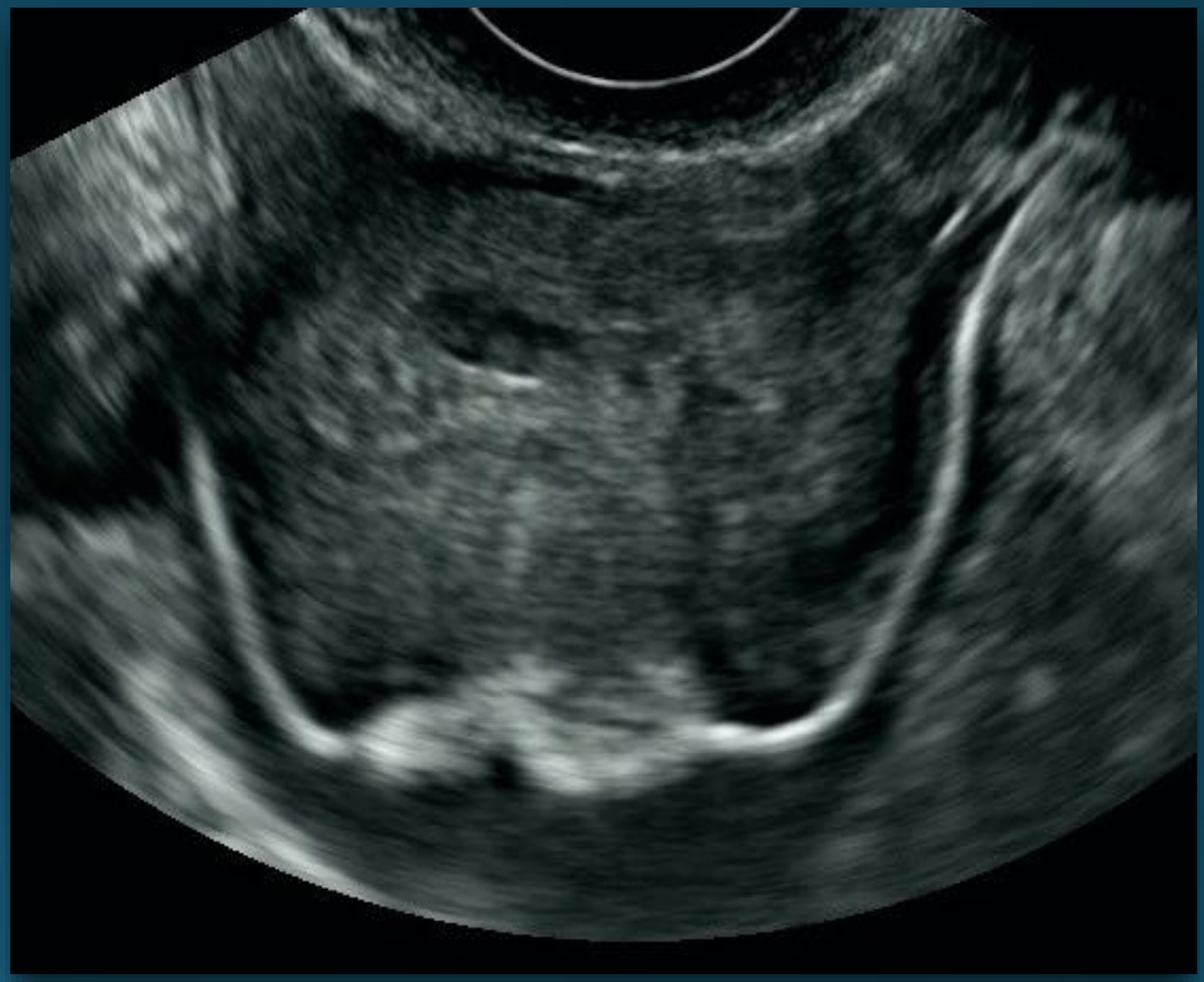
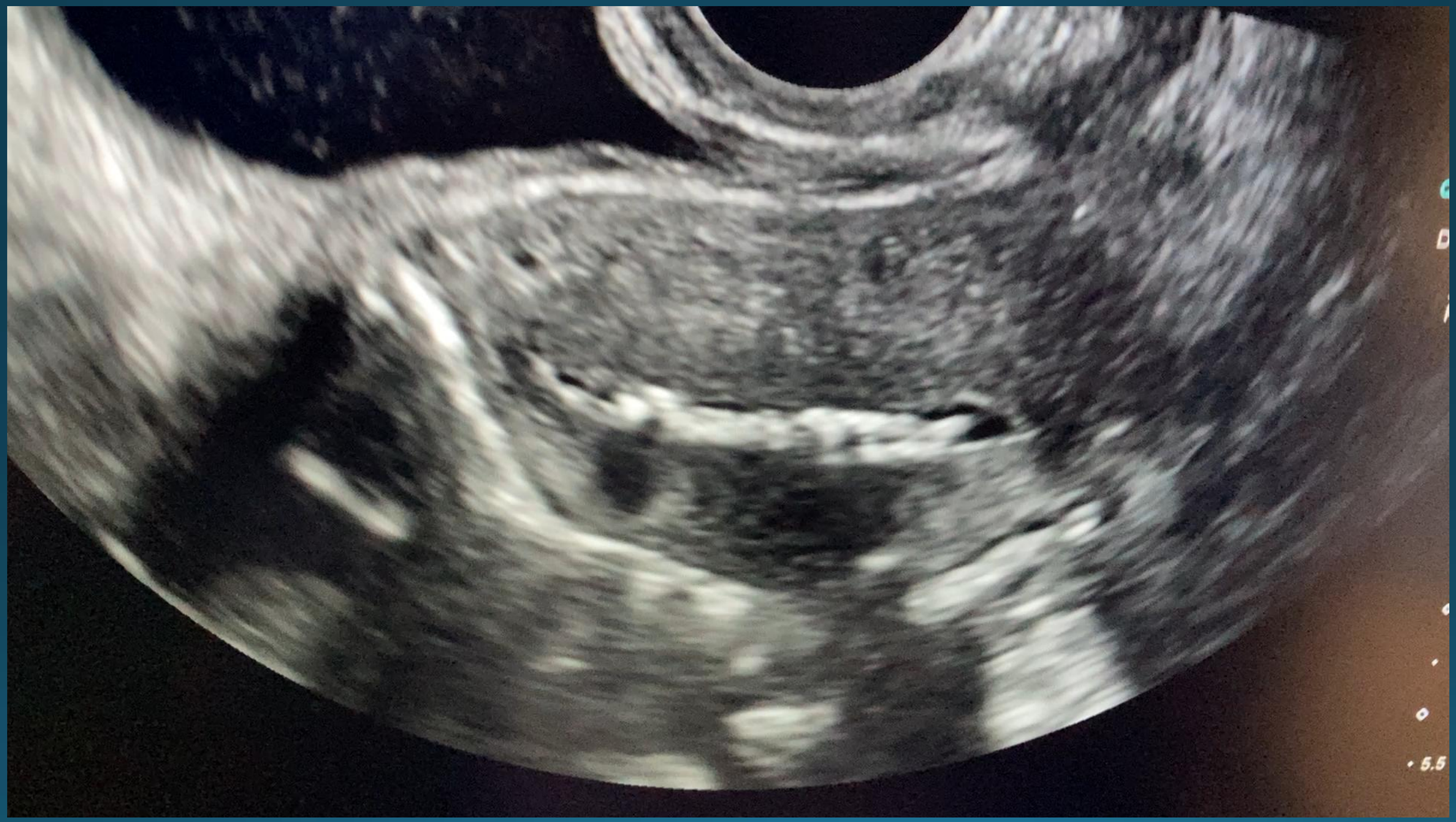
13/06/26



Overview

- Identifying and reporting normal findings
- Abnormal tubal assessment findings
- Abnormal cavity findings
- Other aspects to report

Normal HyCoSy finding



Reporting tubal findings

Comment on :

- Absent, unilateral or bilateral spill
- Significantly delayed spill (particularly if painful)
- Abnormal appearances such as extravasation, salpingitis or hydrosalpinx

Checklist for HyCoSy procedure completed (see attached form).

TAS and TVS were performed with patient consent. DU7; Probe no. 07.

LMP = Day 9

The anteverted uterus is normal in size and sonographic appearance. The endometrium is proliferative and measures 6mm, consistent with the stage of the menstrual cycle.

Both ovaries are sonographically normal.

Antral follicle count on the right = 6 (includes a 13mm dominant follicle)

Antral follicle count on the left = 5

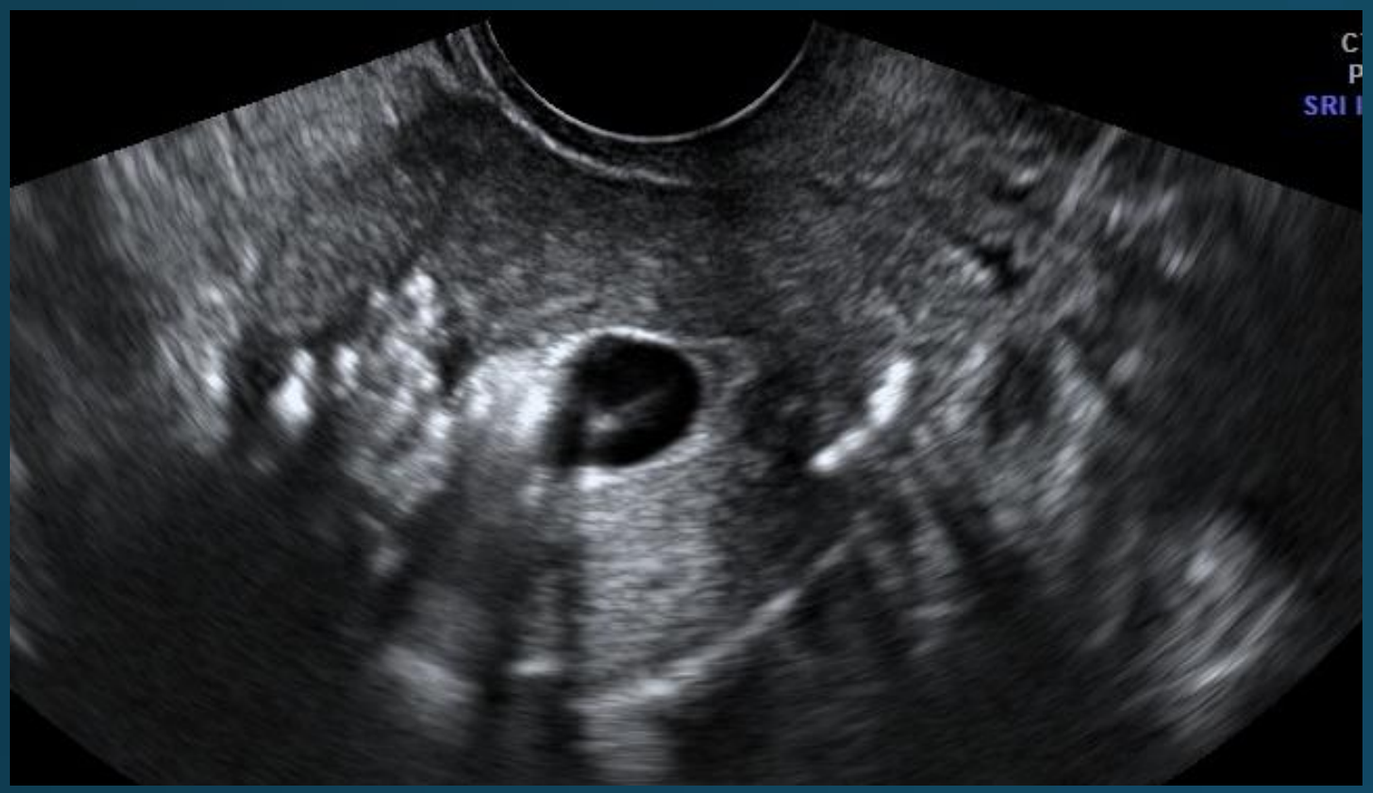
No adnexal masses or pelvic free fluid.

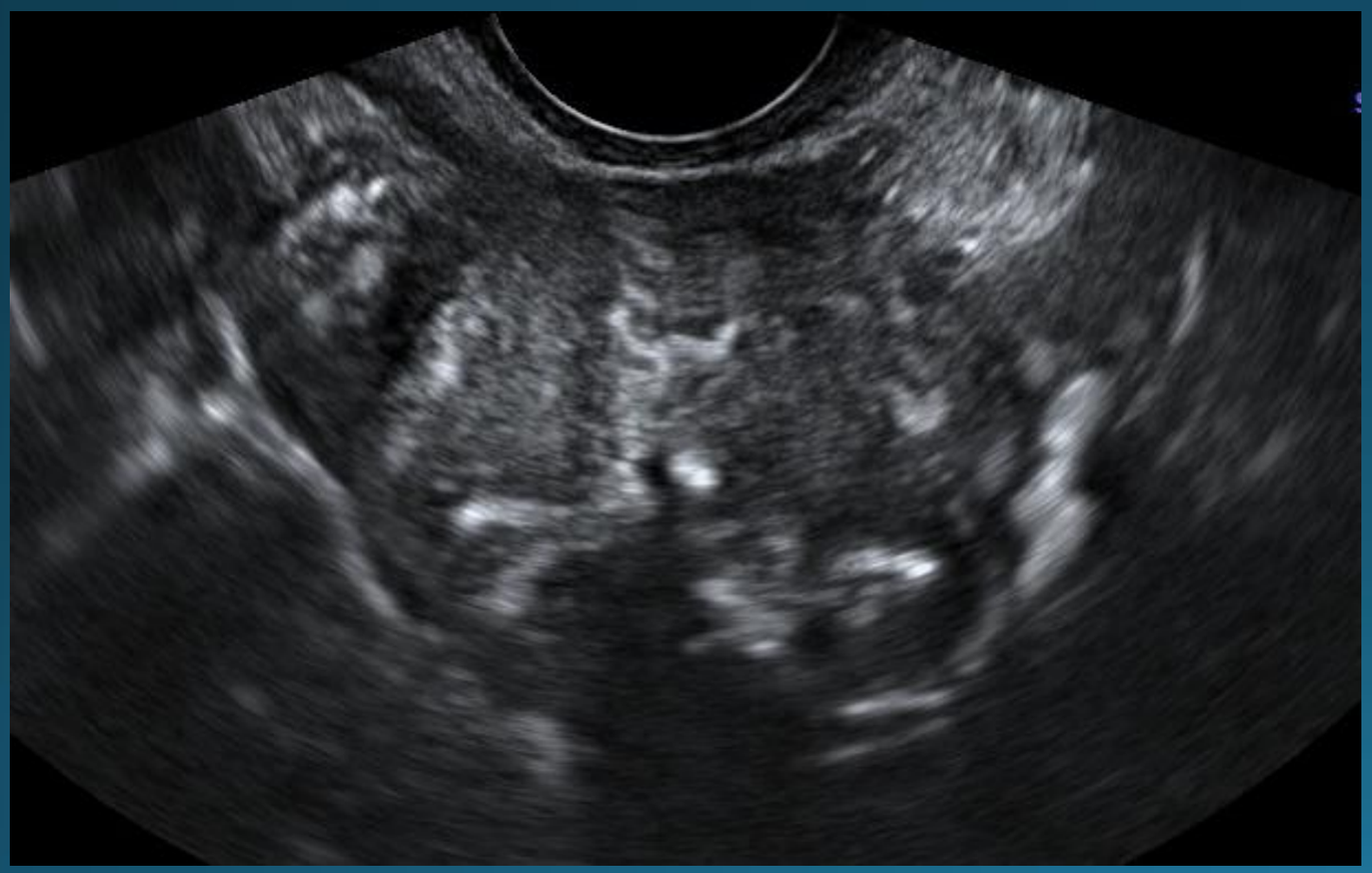
Cannulation of the cervix was straightforward. On instillation of 1-2mls of saline into the uterine cavity, a normal cavity appearance was demonstrated. On instillation of ultrasound contrast, there was normal fill and spill was then identified from both the right and left fallopian tubes.

There was no complication or significant discomfort experienced during the procedure.

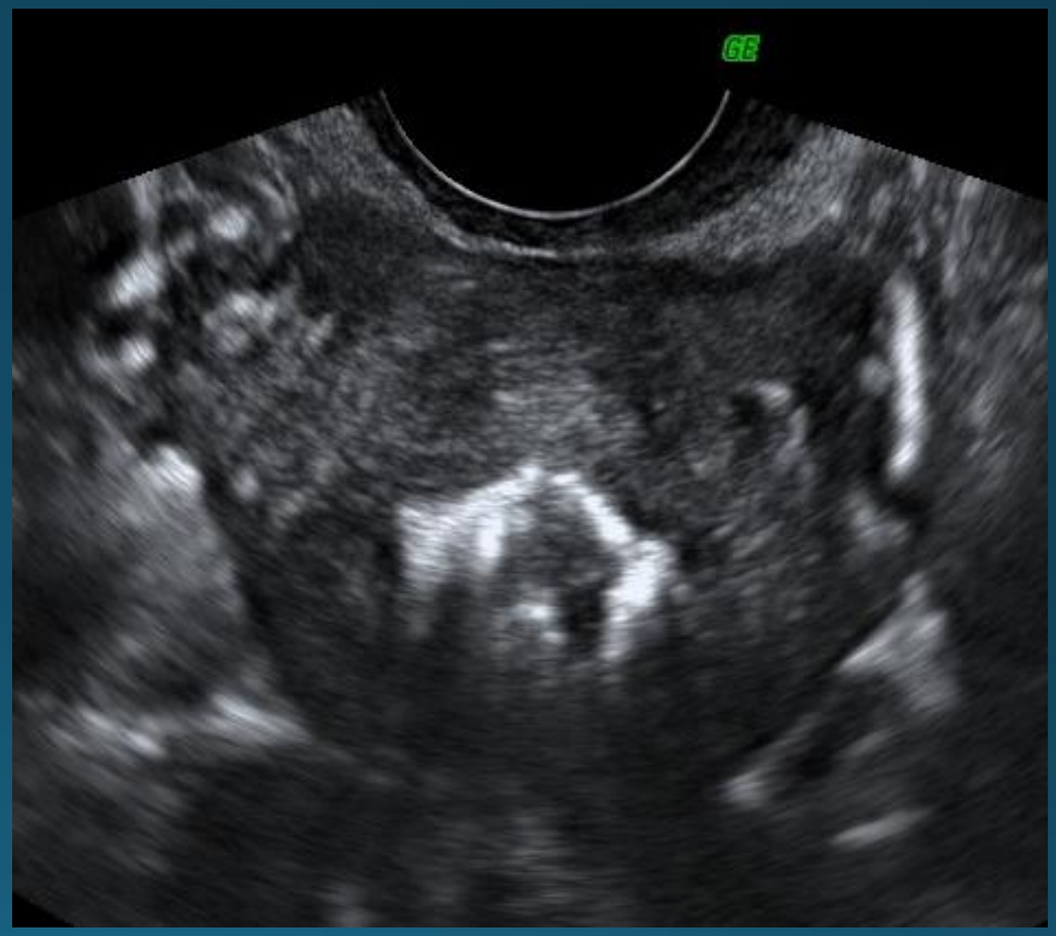
Conclusion: Normal pelvic ultrasound scan. Normal cavity appearance and bilateral tubal patency identified.

Extravasation

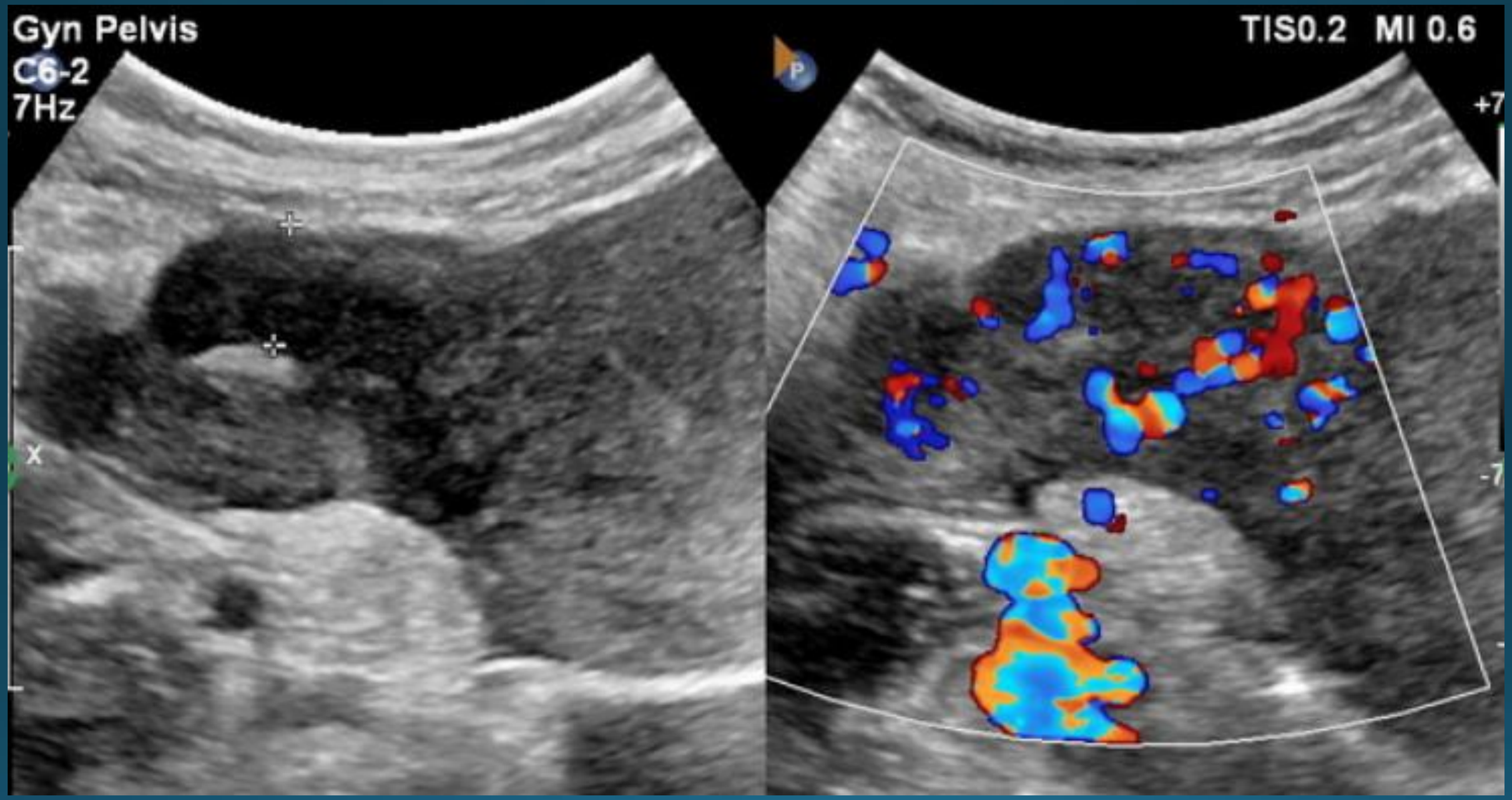




Particularly evident in tubal occlusion



Salpingitis



Salpingitis secondary to appendicitis | Radiology Case | Radiopaedia.org

Abnormal tubal findings

Complete, persistent absent fill and spill – ACTION

- Consider bilateral tubal spasm – allow some time for this to subside, try to get your patient relax as much as possible
- Check that the balloon has a good seal and/or is still inflated. Check for retrograde flow – (patient may report sensation of leaking fluid)
- Switch to saline as this is less viscous. You will still see contrast in the tubes as it takes a while for the contrast to be fully flushed from the cavity
- Consider using a second box of contrast

Be mindful of the amount of pain experienced. If pain is considerable, it may indicate bilateral blockage. You may not want to subject your patient to this pain for too long.

Unilateral spill with one tube not visualised - ACTION

- Try techniques above, it is possible to have unilateral spasm.
- Consider pulling back the balloon catheter slightly as it may be abutting one of the cornua (this can also be effective if you are worried about a good seal from the balloon)

Other abnormal tubal findings

Extravasation,'pearling' (salpingitis), hydrosalpinx etc – ACTION

- Continue assessment for appropriate period of time ie do not persistent if there is severe pain

- Make note of amount of pain

- Describe appearances – If there is shunting or poor flow and describe as could indicate a partial blockage/suboptimal tube

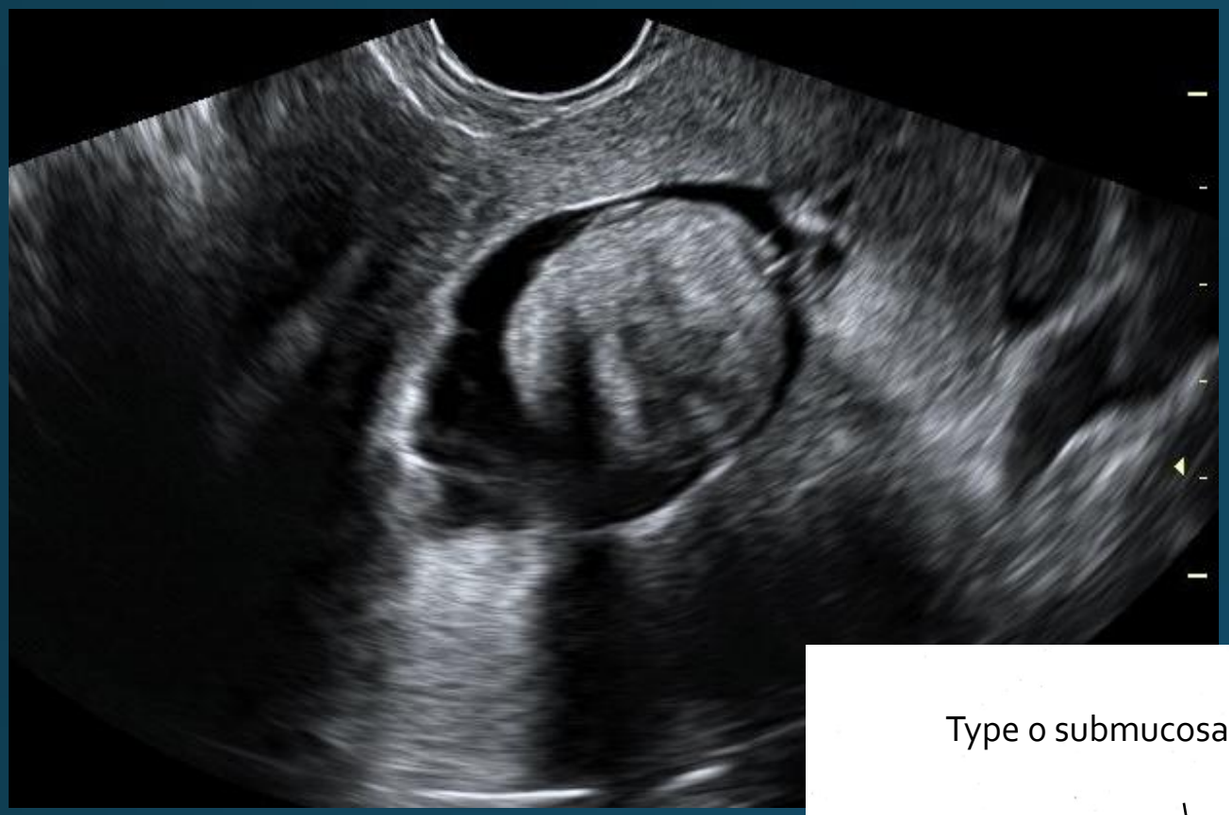
Remember: Tubes that do not fill and spill are often found to be patent if further assessed at laparoscopy, so bear this in mind if you give the results provisionally to the patient

Reporting abnormal cavity findings

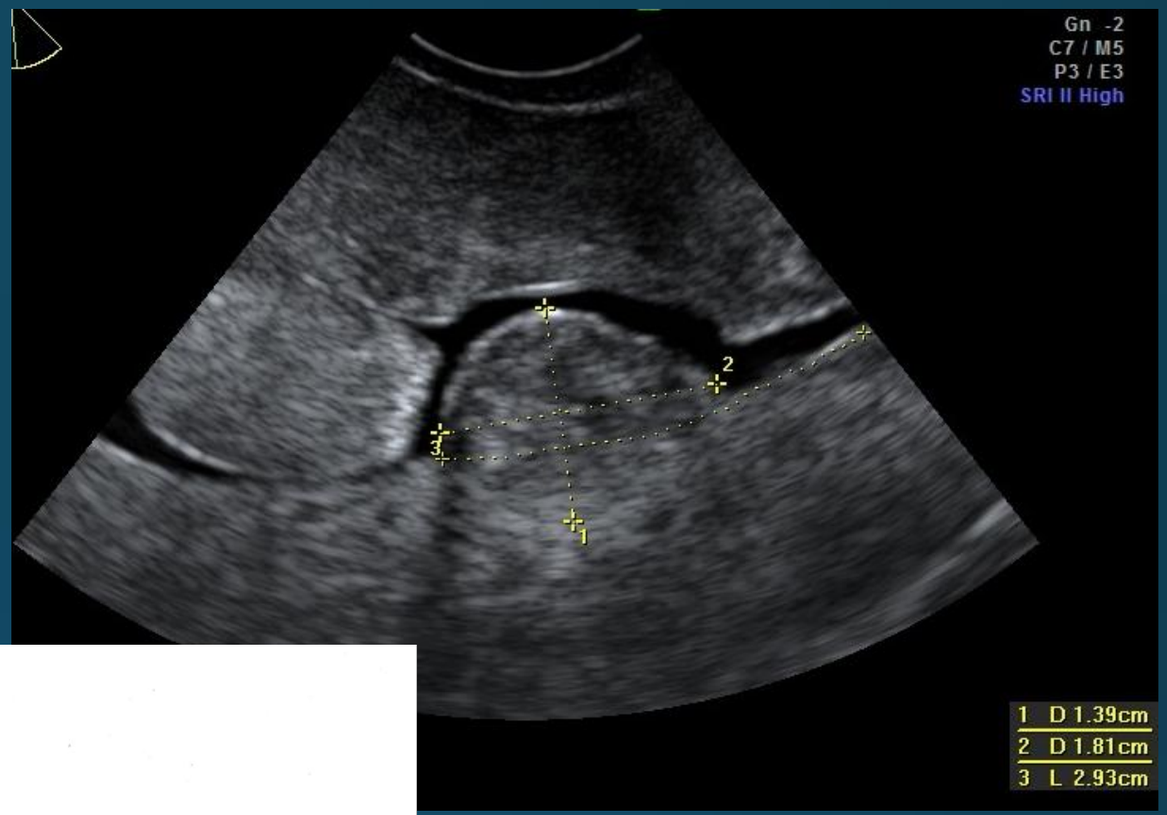
- Cavity lesions – state size, location and number

- When diagnosing a submucosal fibroid indicate its type, & percentage extending into cavity

Quantifying submucosal fibroids

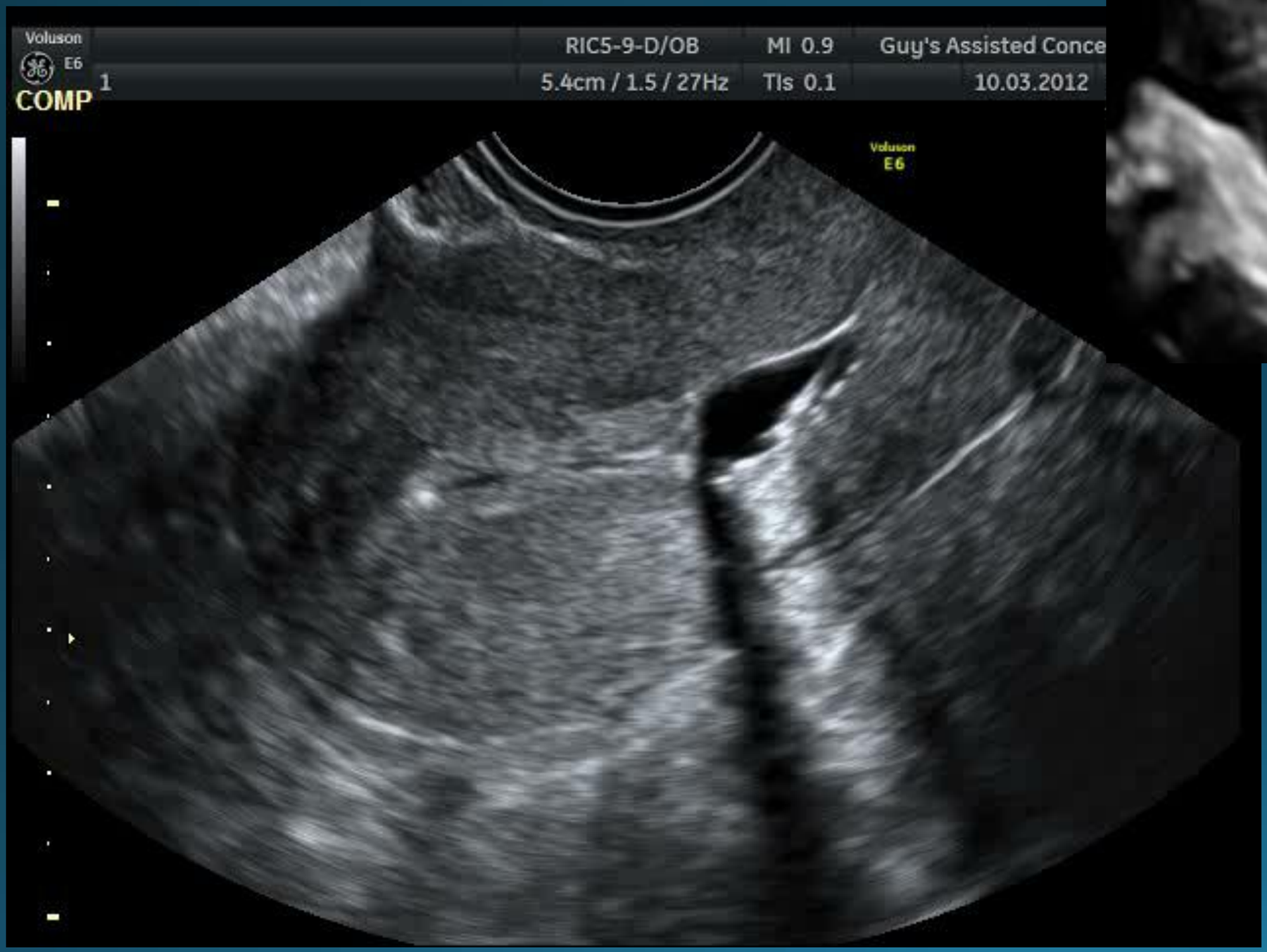


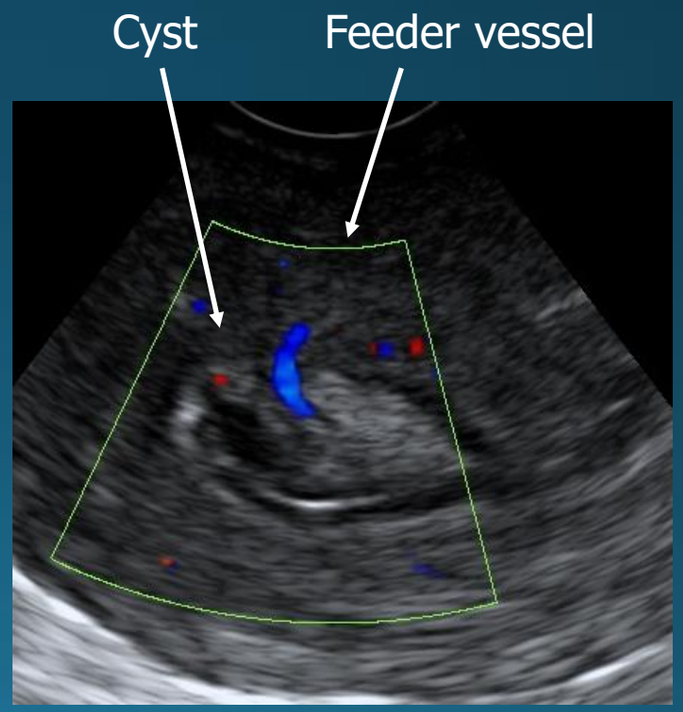
Type 0 submucosal fibroid – pedunculated into the cavity



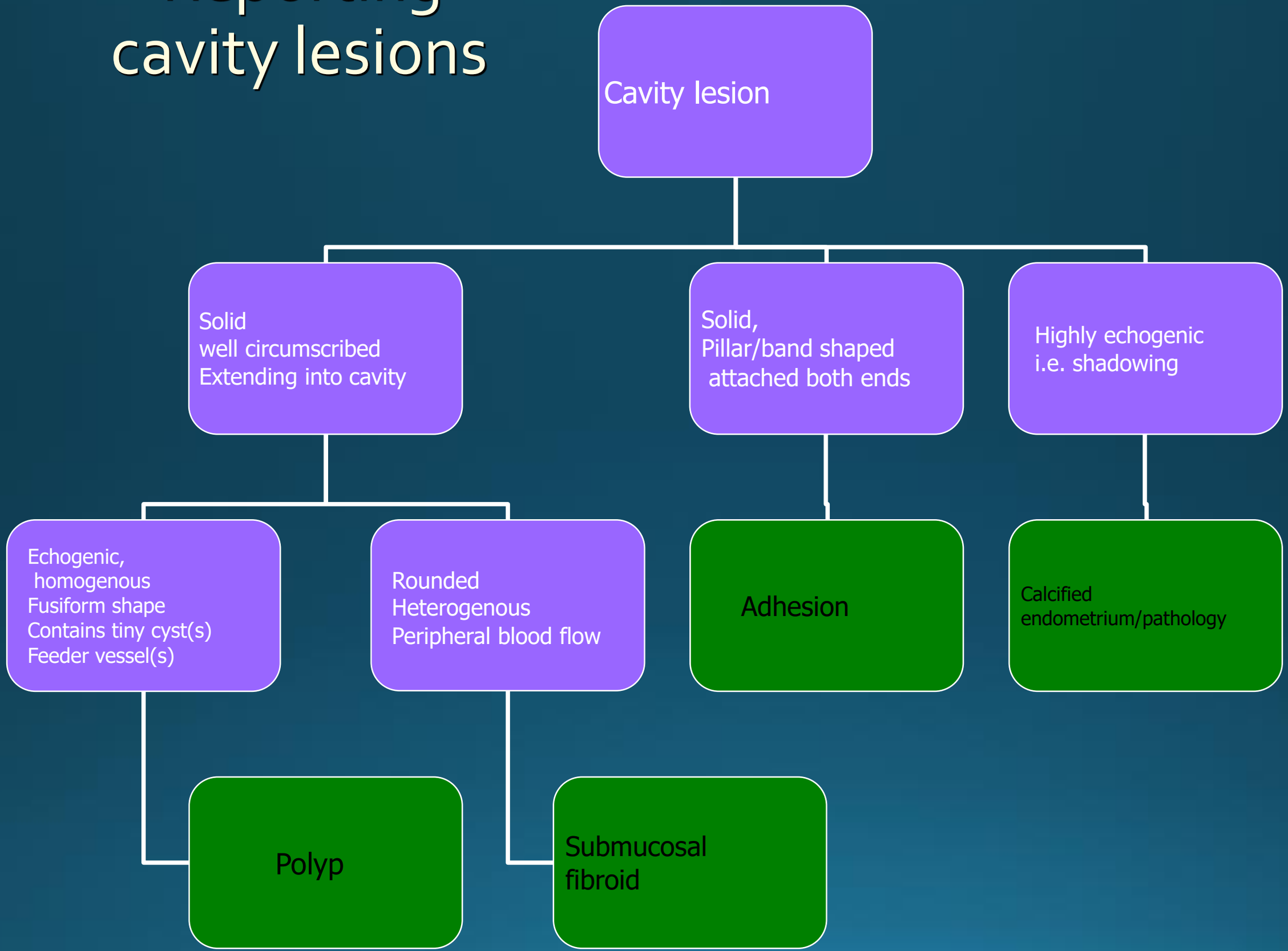
Type I submucosal fibroid - with 70% extension into the cavity

Endometrial Polyp(s)



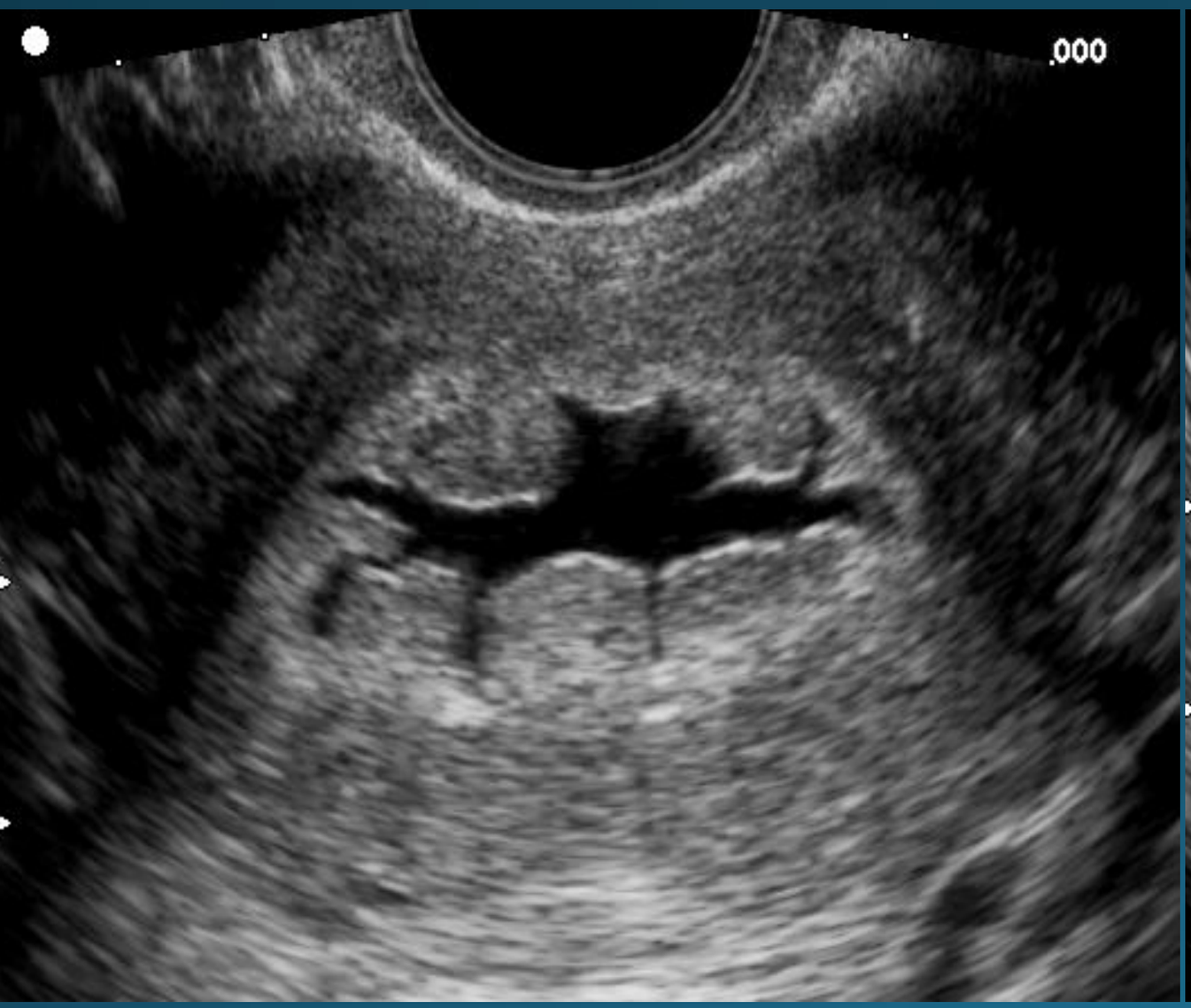


Reporting cavity lesions

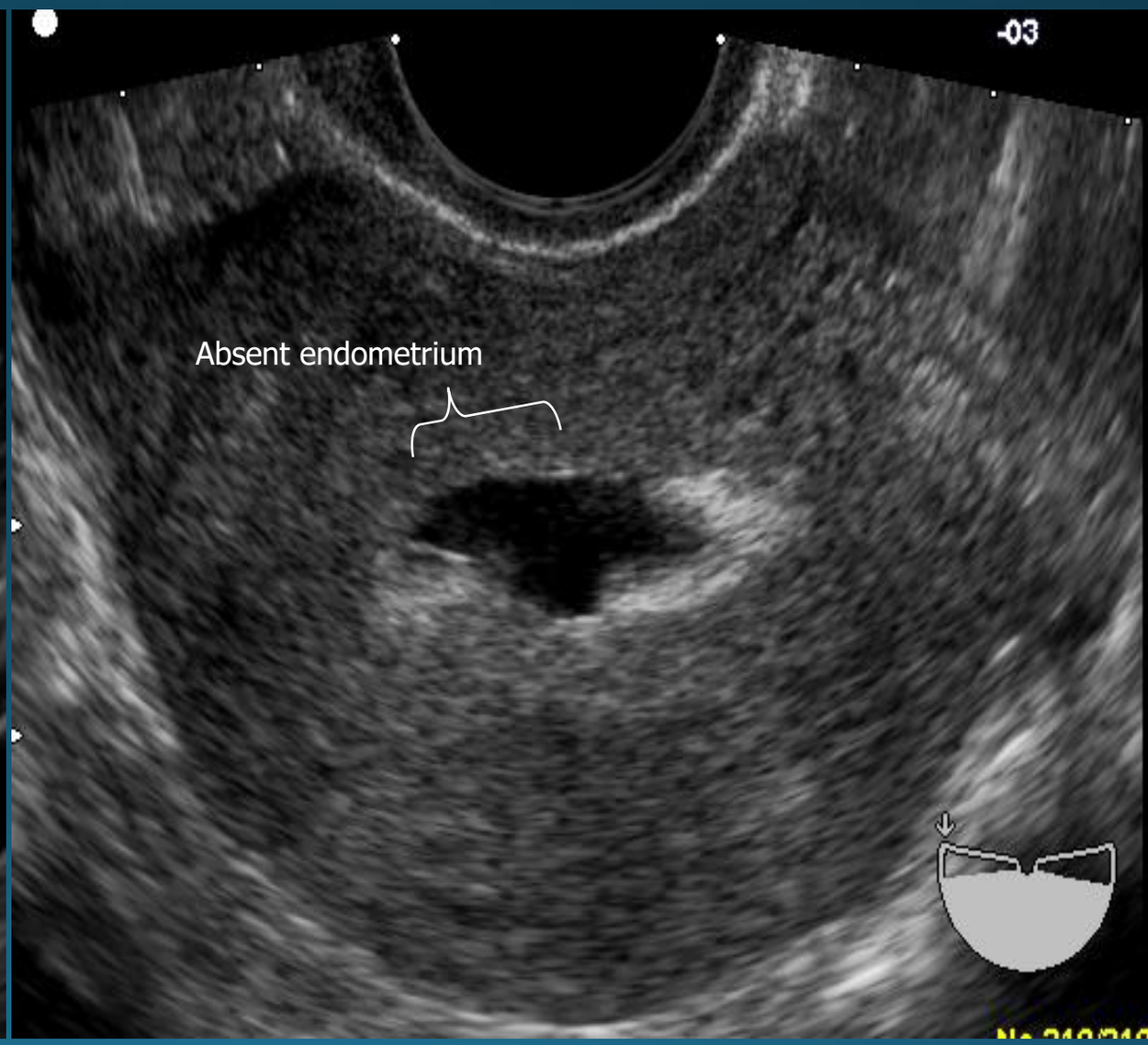


Other endometrial anomalies

Polypoid endometrium

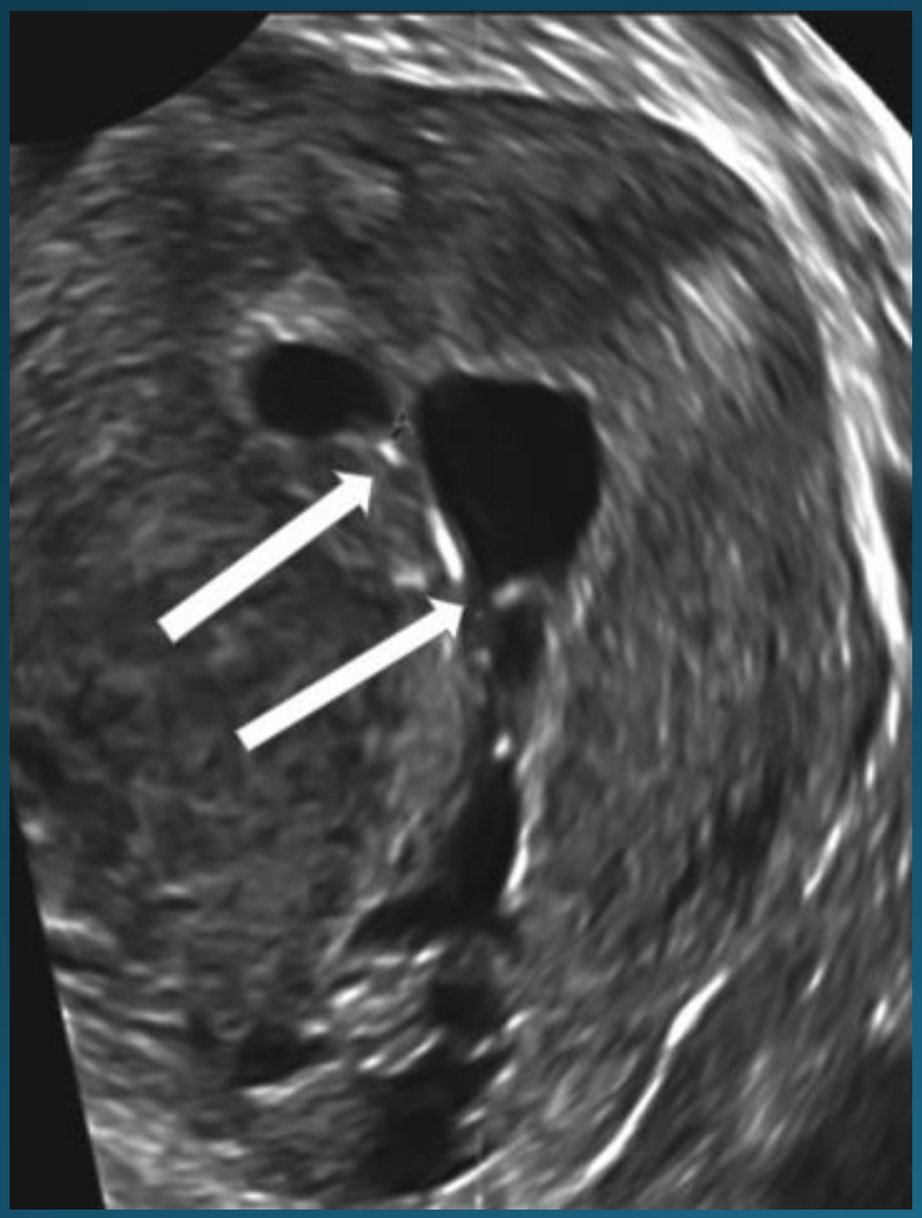


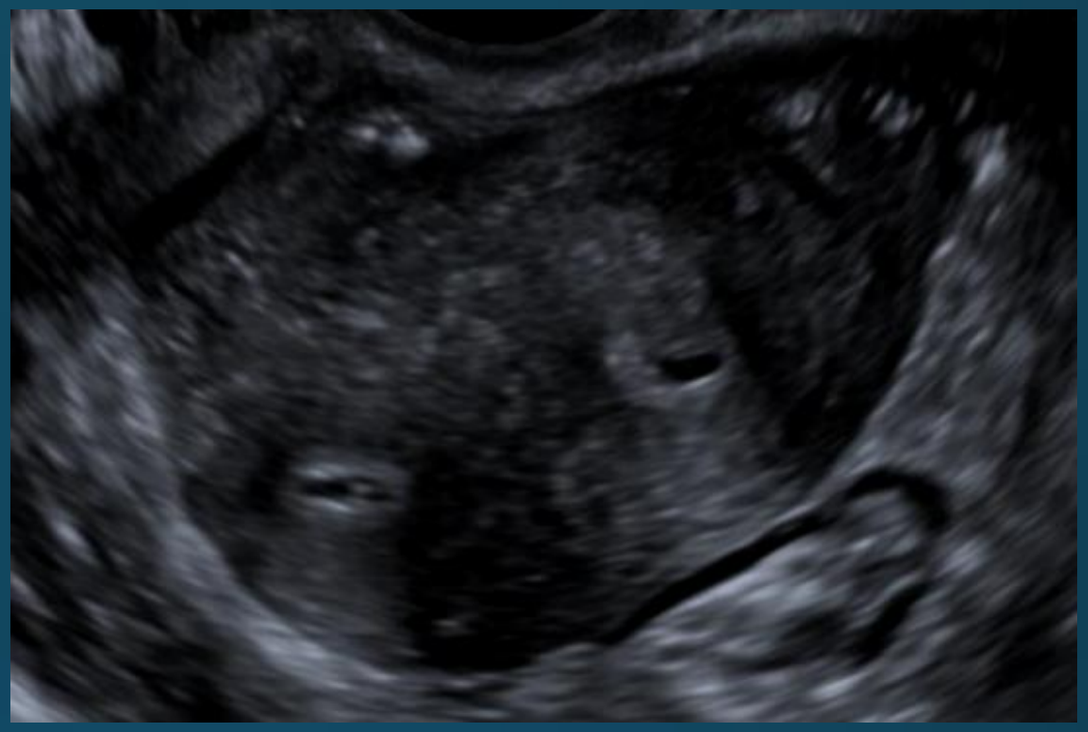
Scarring post-myomectomy



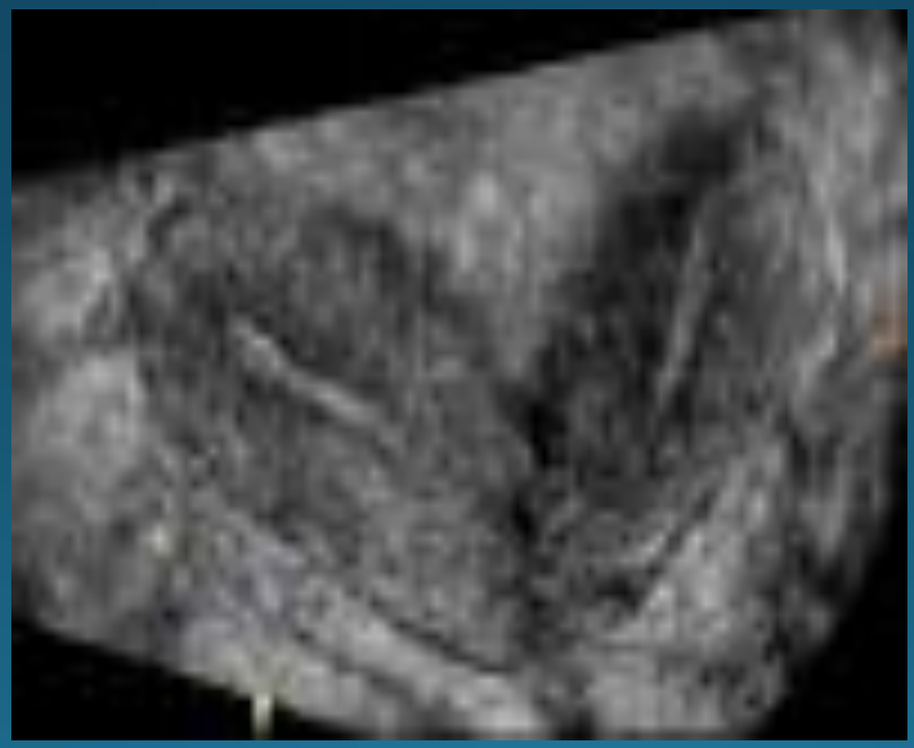
Reporting SIS/ 3D findings

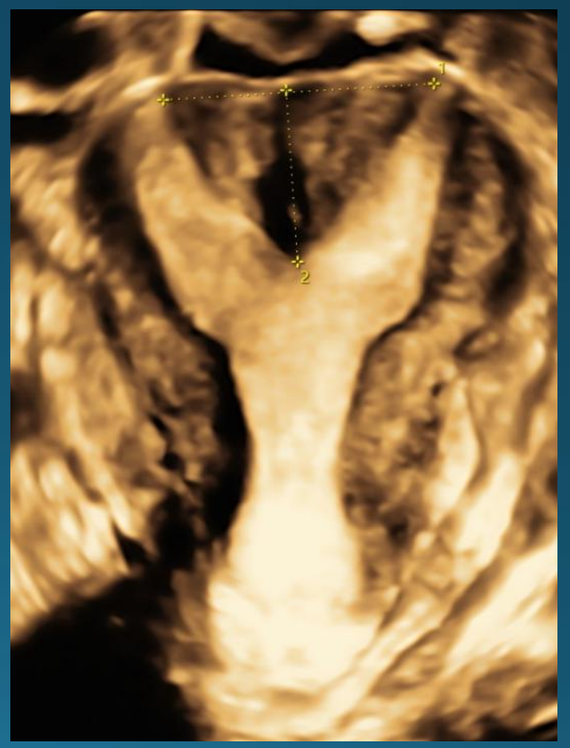
Adhesion location
(i.e fundus to side wall)



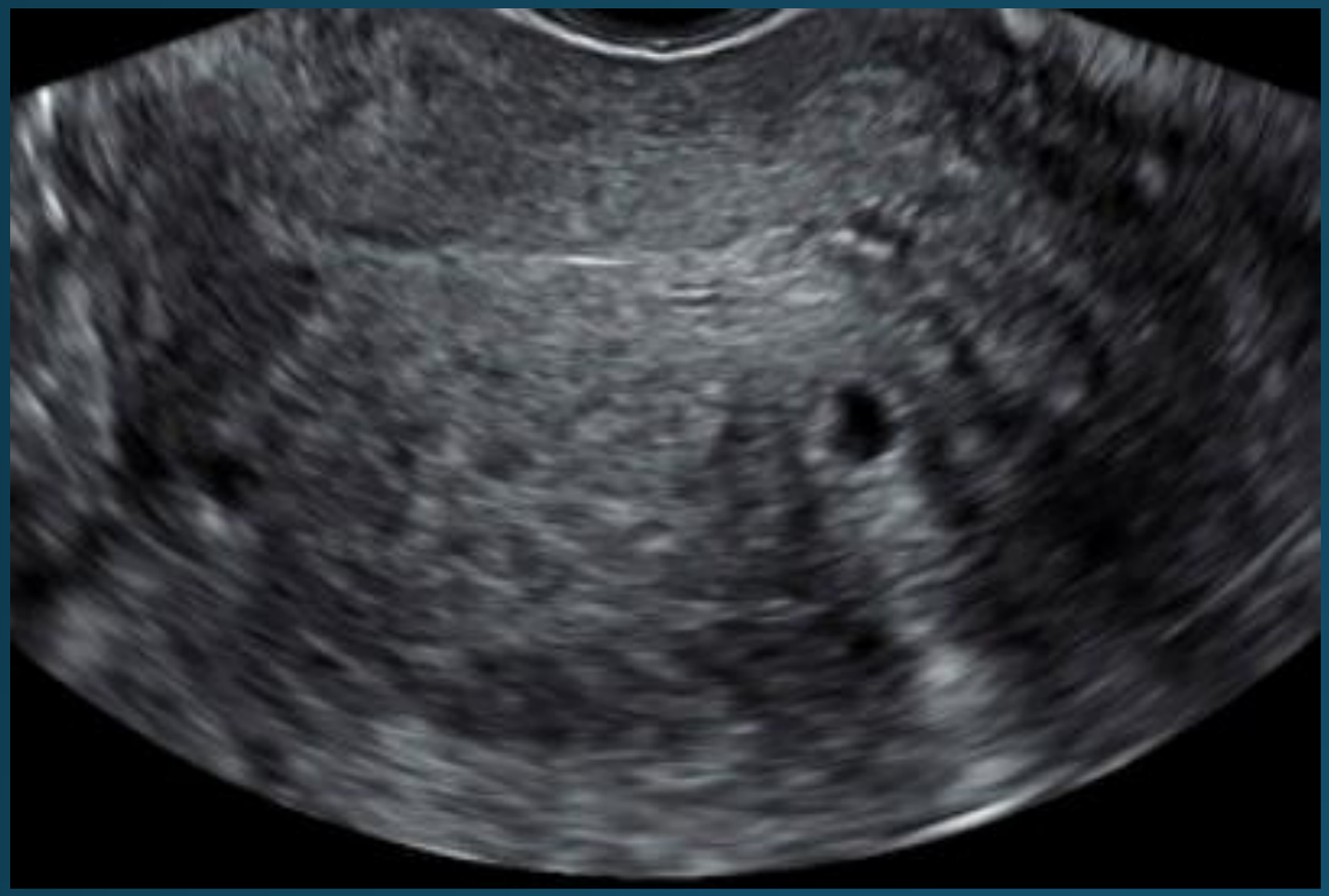


Uterine Malformations

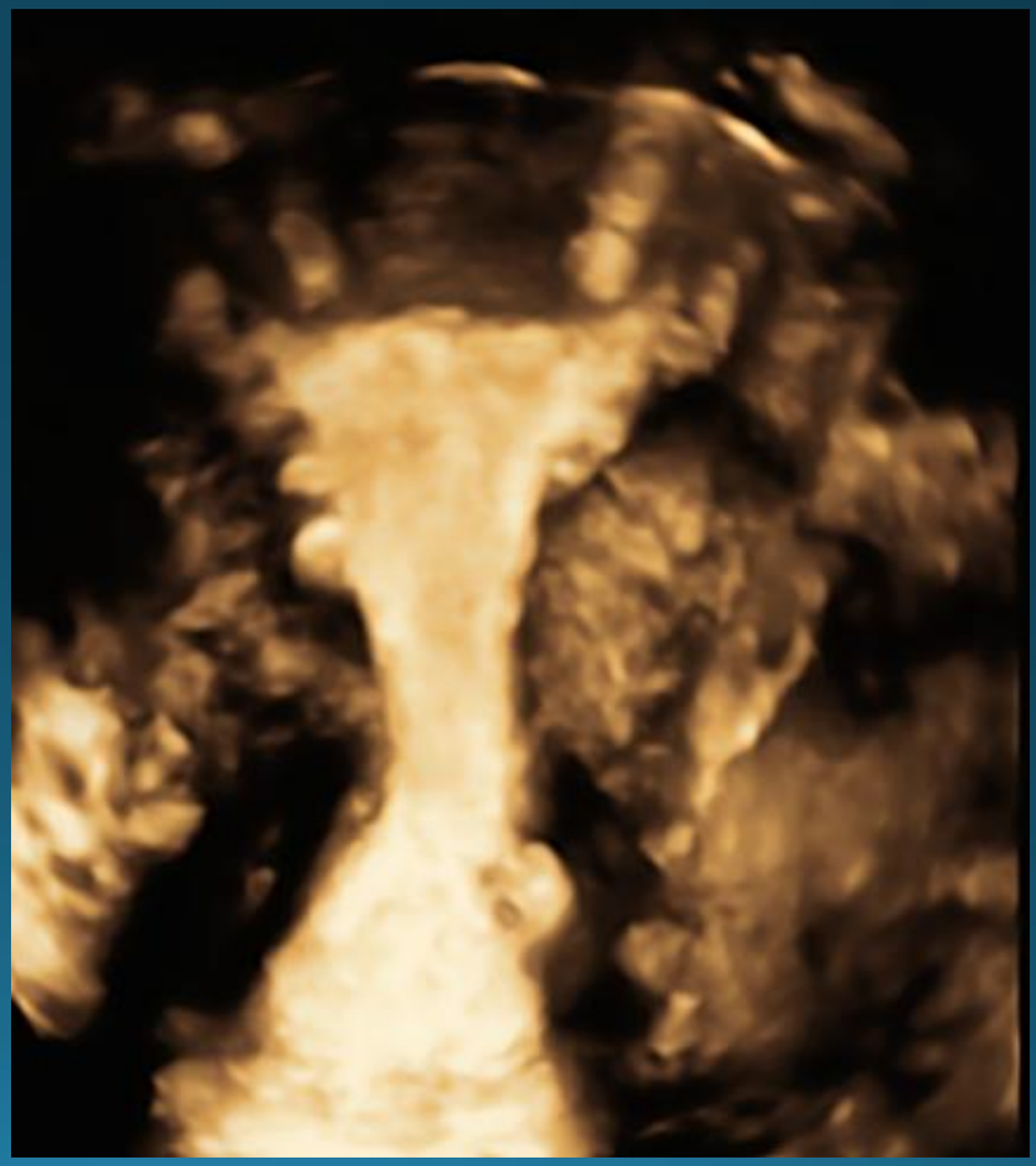




Adenomyosis – significant in fertility!



Conflicting research regarding junctional zone thickness and fertility outcomes. Ongoing research.

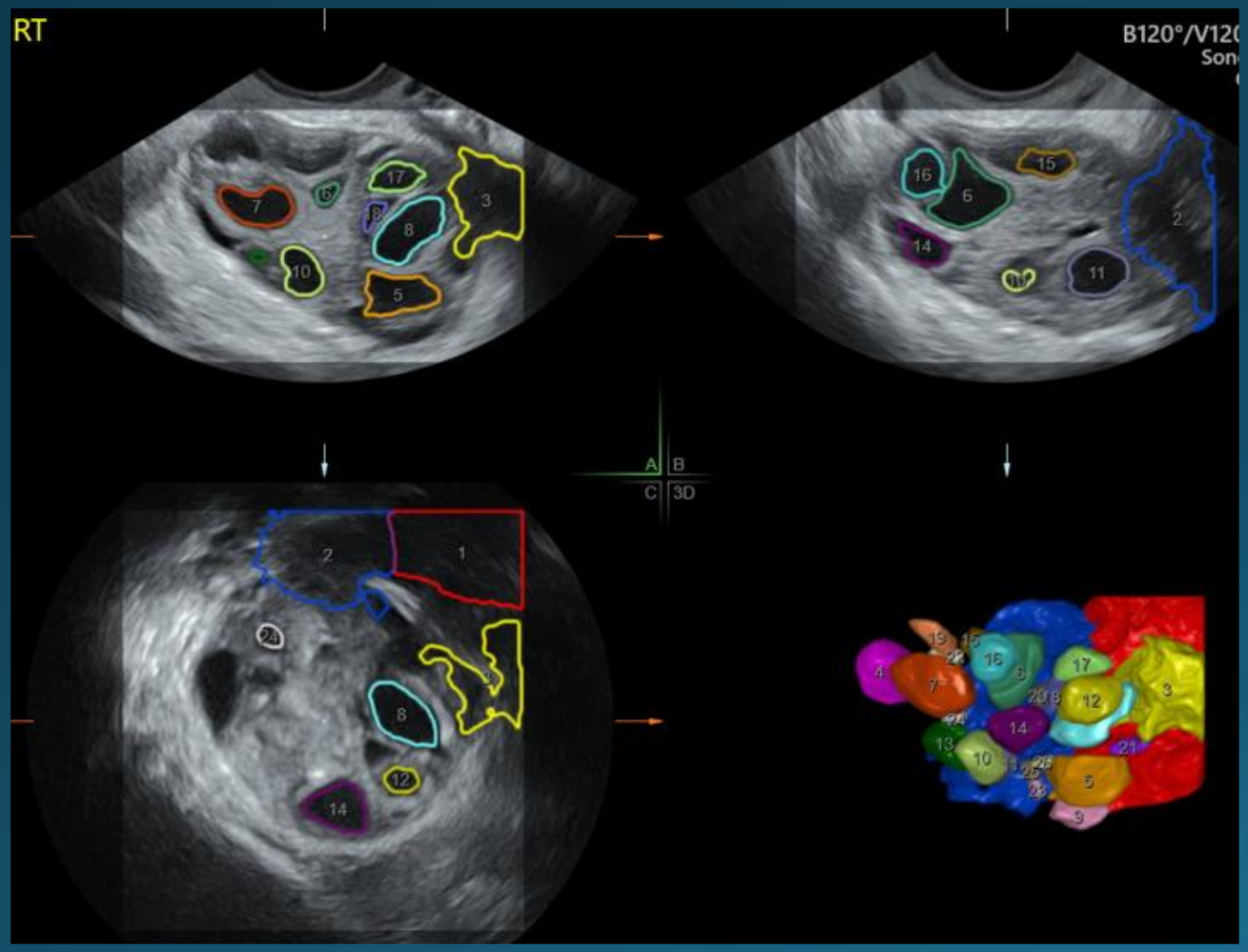


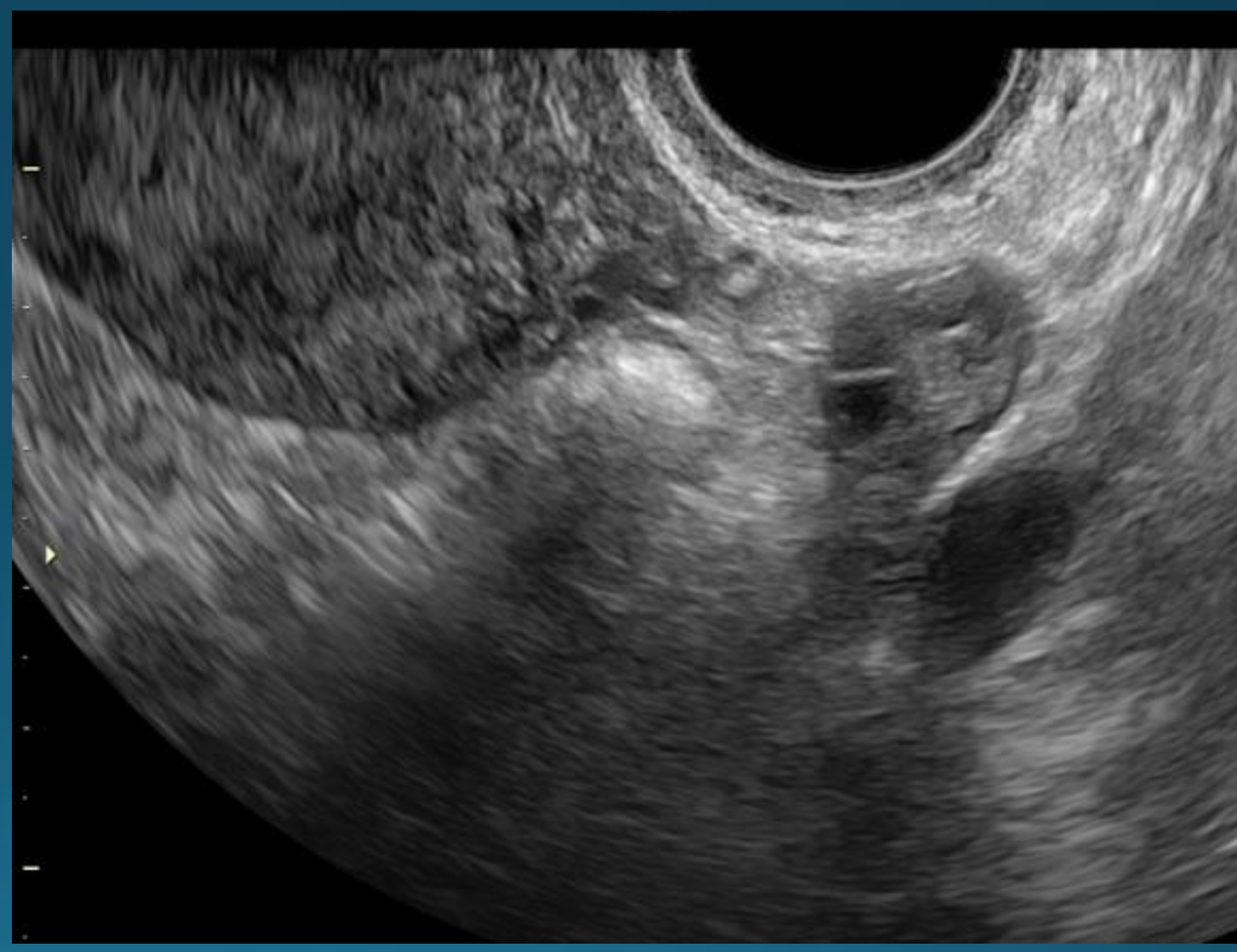
* Wang S, Duan H. The role of the junctional zone in the management of adenomyosis with infertility. (2023). Front Endocrinology (Lausanne). Vol.10 (14)

* Maged, A., Ramzy, A., Ghar, M., Shenoufy, H., Gad Allah, S., Wahba, A., ElKateb, Y., Hwedi, N. (2017). '3D ultrasound assessment of endometrial junctional zone anatomy as a predictor of the outcome of ICSI cycles'. *European Journal of Obstetrics & Gynecology and Reproductive Biology. V*ol. 212. Pp. 160-165

Ovarian aspects to report

- AFC (POF/ PMOS)
- Ovarian mobility/accessibility



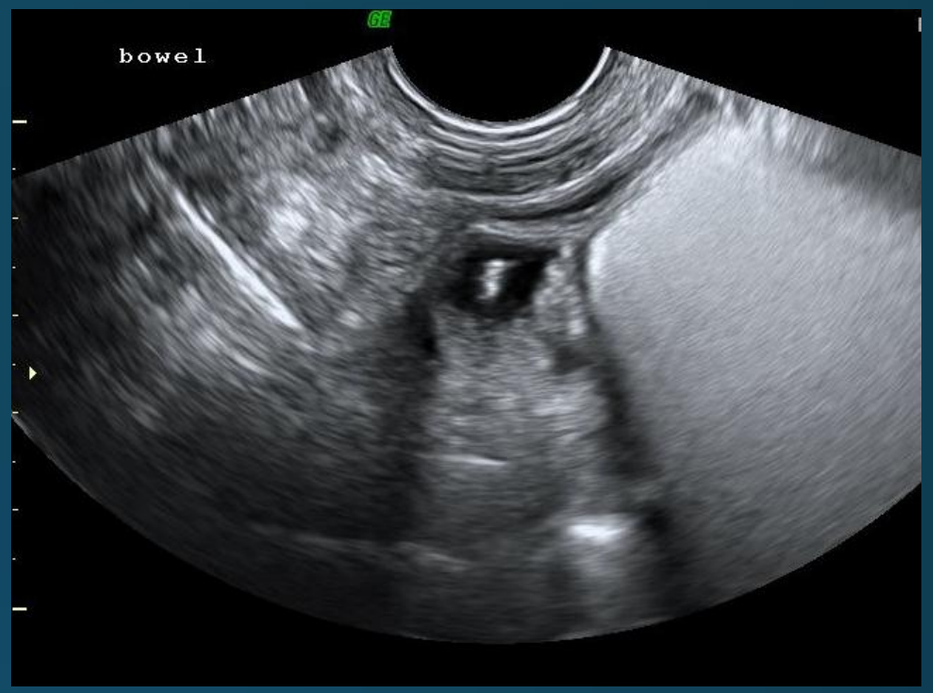


Potential pitfalls in interpretation

- Tubal spasm

(? Use of anti-spasmodics?)

- Position of the ovaries/uterus
- Pelvic pathology
- Gassy bowel (CD useful)
- Rapid migration of contrast from one side of the pelvis to the other



Conclusion

- If you are assessing suspected or incidental cavity pathology, consider removing the catheter to obtain a better view (inject generous amount of saline before deflating the balloon)

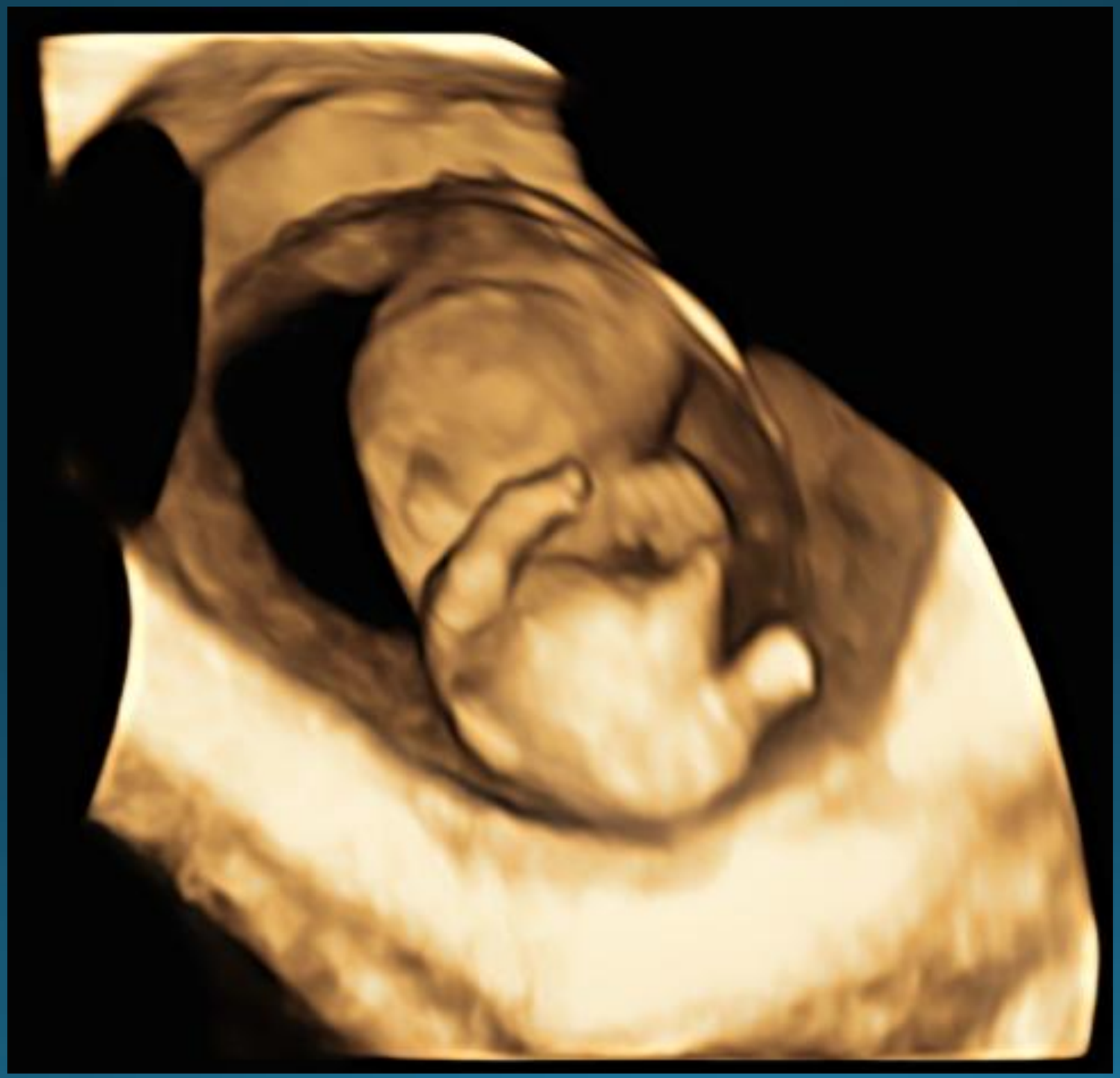
- When scanning a low-risk population expect normalcy and persist where possible to show fill and spill

- If tubal patency cannot be demonstrated this does not necessarily indicate tubal blockage

- Make note of severe pain and suboptimal fill and spill

- Include any extra tubal pathology (e.e Adenomyosis, uterine abnormalities, ovarian reserve – anything related to fertility)

Perfect outcome!



Thank You...

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