



Pregnancy Luteoma: The Masquerading Ovarian Enigma - A Case Report with Literature Review

Dr. Gaurang Narayan/ Dr. Sachin Wankhede/ Dr. Prachi. C. Thool

Indira Gandhi Government Medical College and Hospital, Nagpur, Maharashtra, India

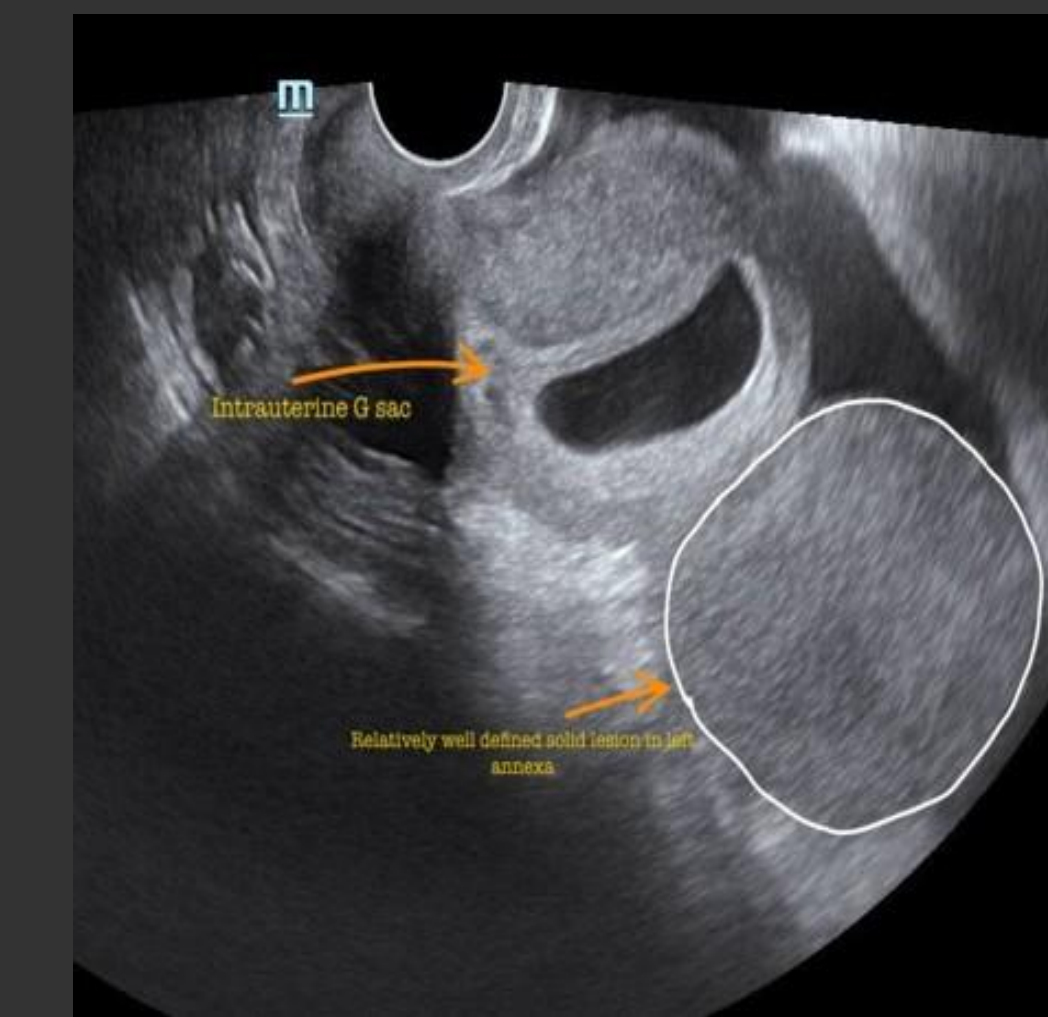
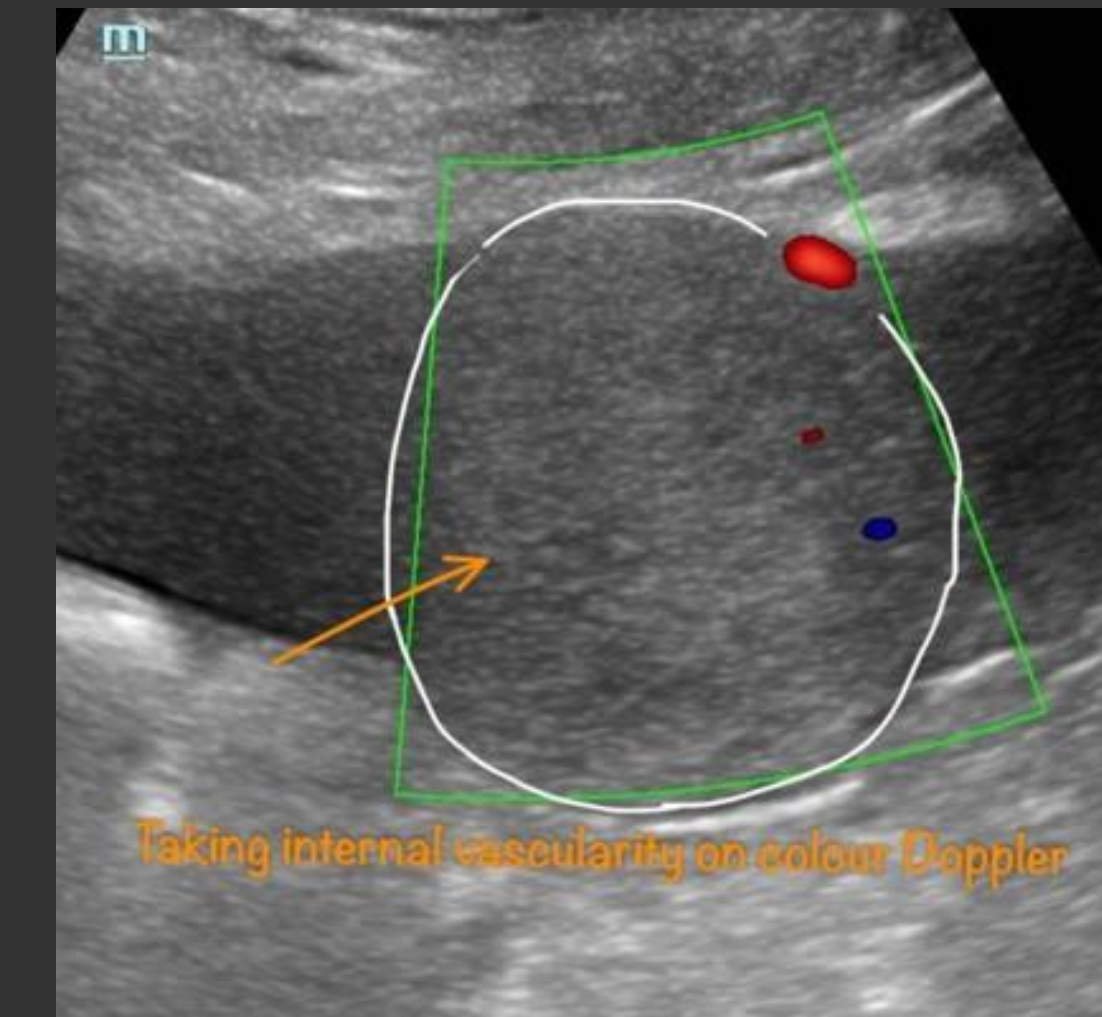
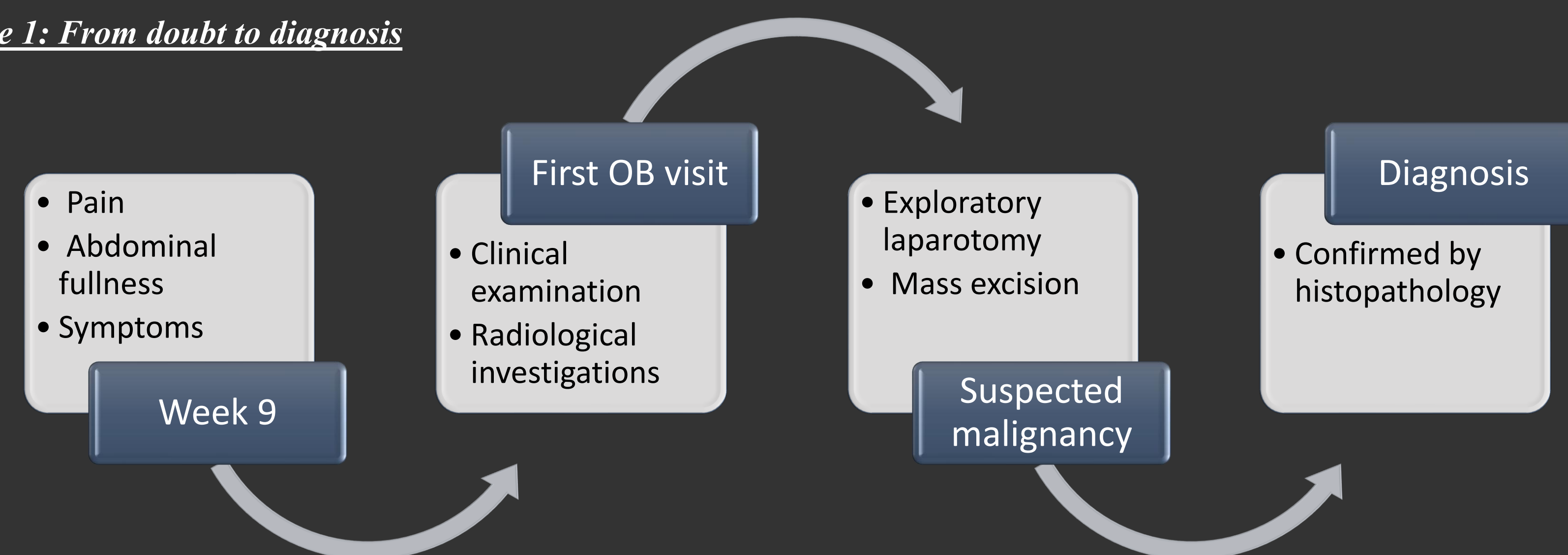


Introduction:

Rare, benign ovarian tumor-like lesion that arises during pregnancy due to hormonal stimulation, particularly hCG. (1) Typically, non-neoplastic and regresses spontaneously postpartum. (2) Often asymptomatic and detected incidentally during cesarean or imaging; sometimes mimics ovarian malignancy. (3) Presents risk of maternal or fetal virilization in symptomatic cases, affecting up to 70% of female fetuses. (4) Fewer than 200 cases have been reported globally, making it an exceptionally rare clinical entity (5)

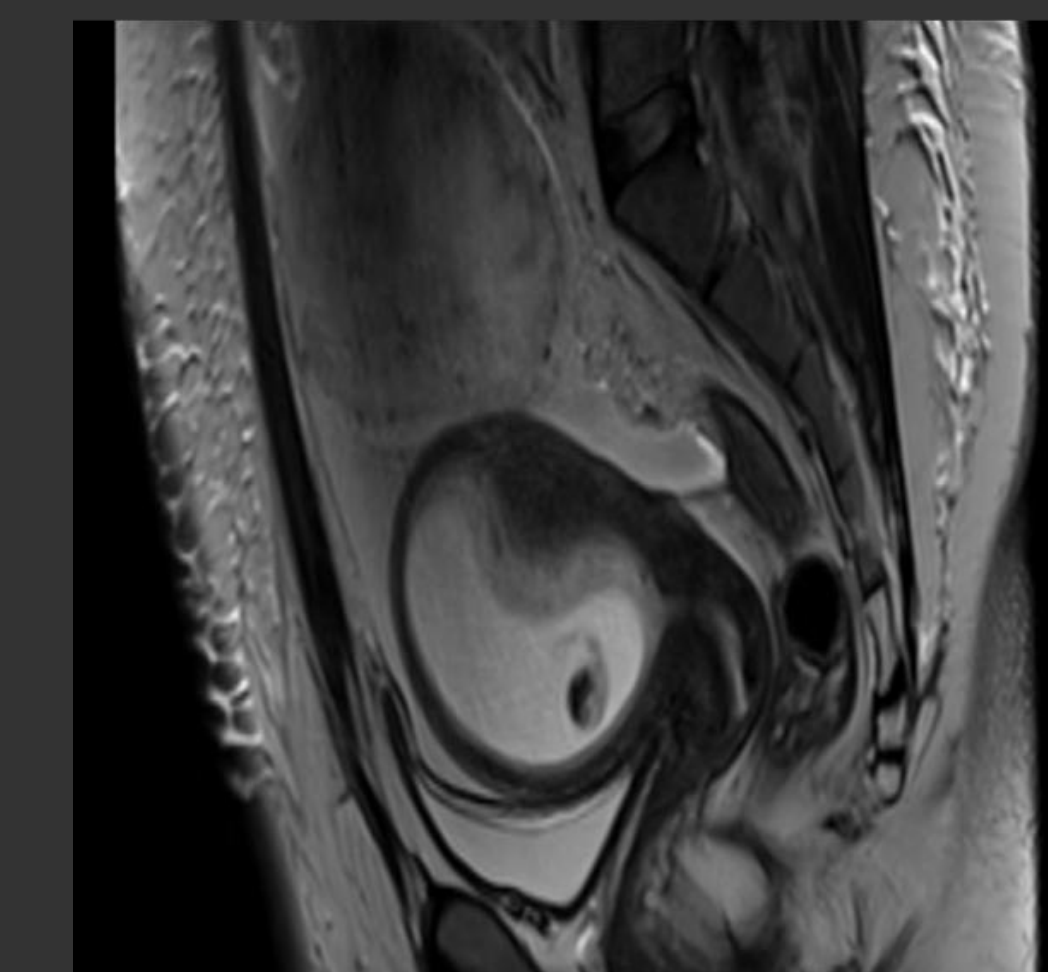
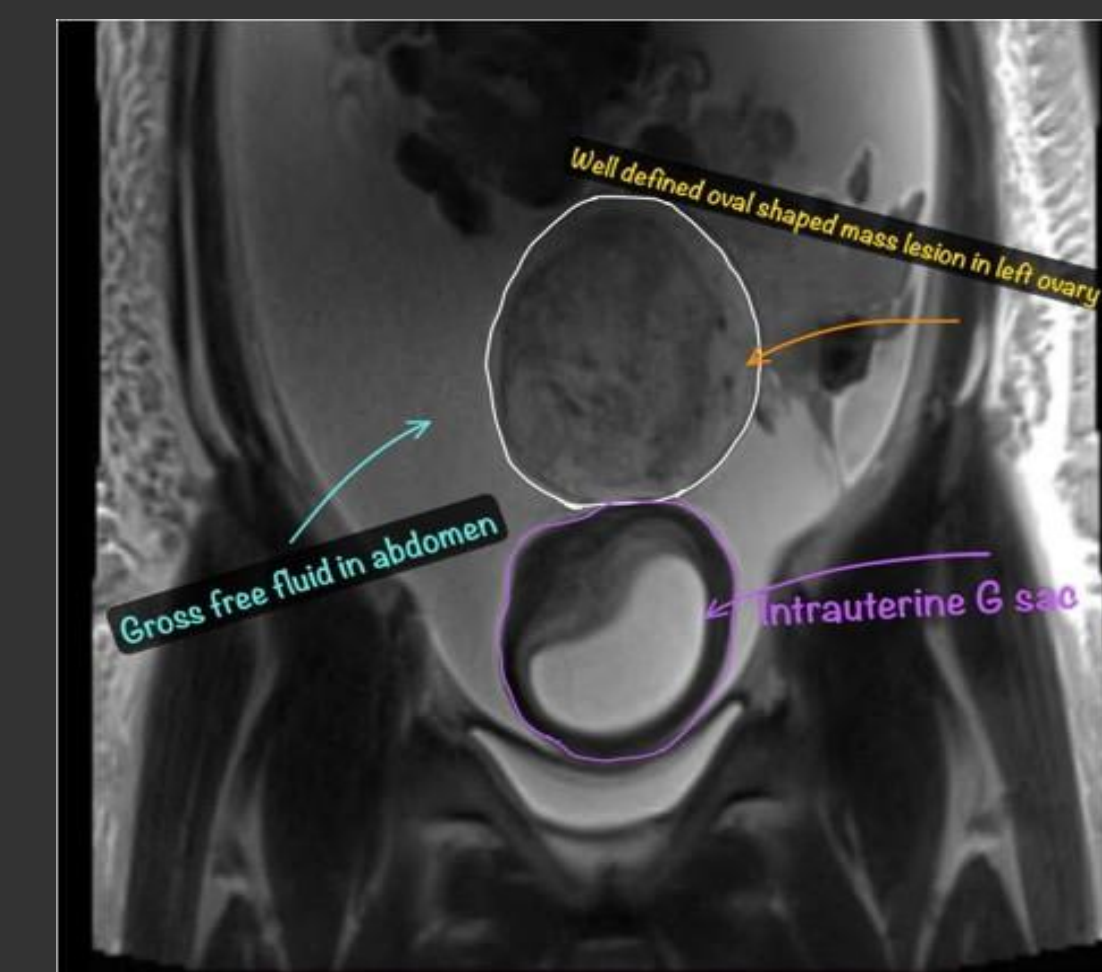
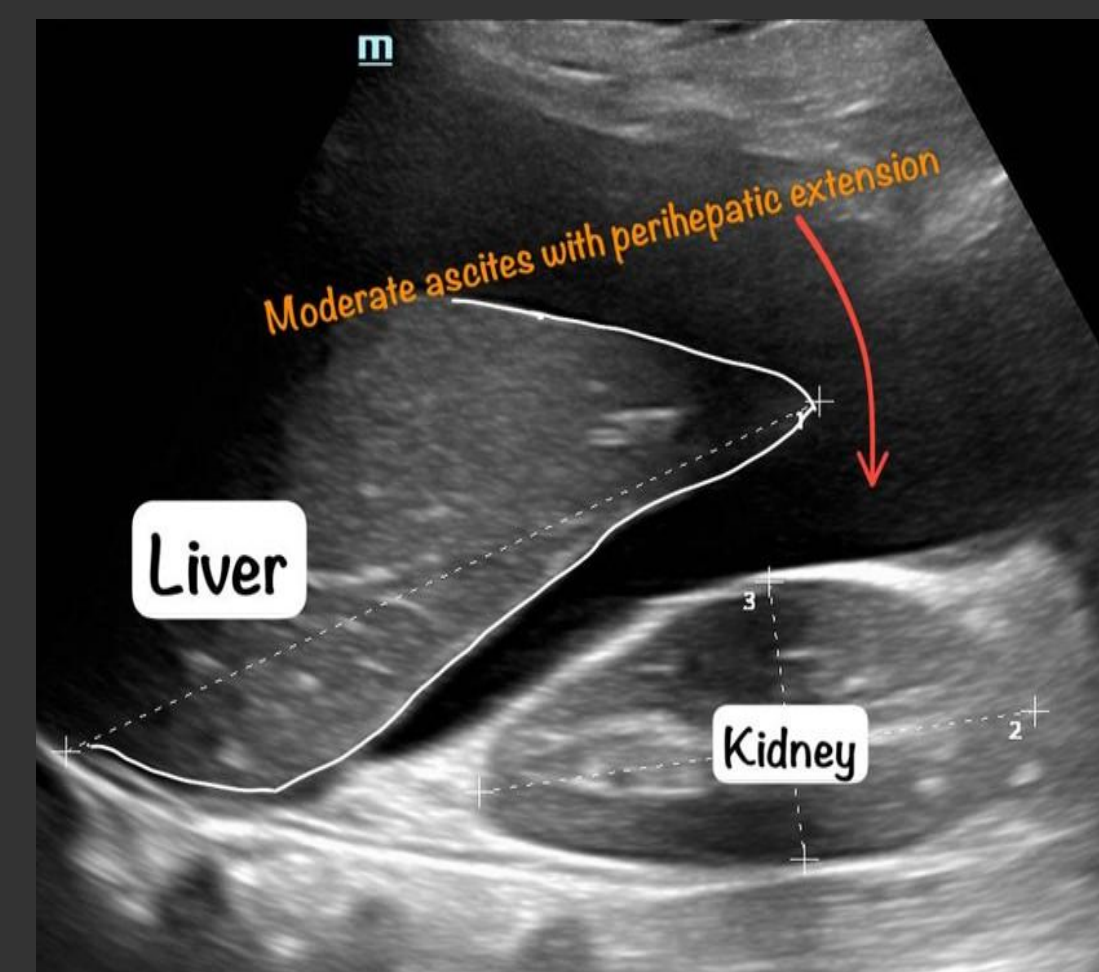
Case Report: A 27-year-old primigravida presented with early pregnancy-associated abdominal distension and respiratory distress. Clinical examination revealed massive ascites, uterine size corresponding to 16 weeks' gestation, and a palpable ovarian mass. Imaging identified a large solid-cystic right tubo-ovarian complex with pleural effusion. Elevated CA-125 levels raised the suspicion of an ovarian fibroma or thecoma. Exploratory laparotomy revealed an ovarian mass necessitating a right salpingo-oophorectomy. Post-operative recovery was uneventful, with normalization of CA-125 levels, confirming the benign nature of the condition. Histopathological examination confirmed the presence of a luteoma. The patient continued her pregnancy and delivered a full-term healthy child at 39+4 weeks of gestation by a lower segment cesarean section delivery, done in view of thick meconium stained liquor with fetal distress.

Figure 1: From doubt to diagnosis

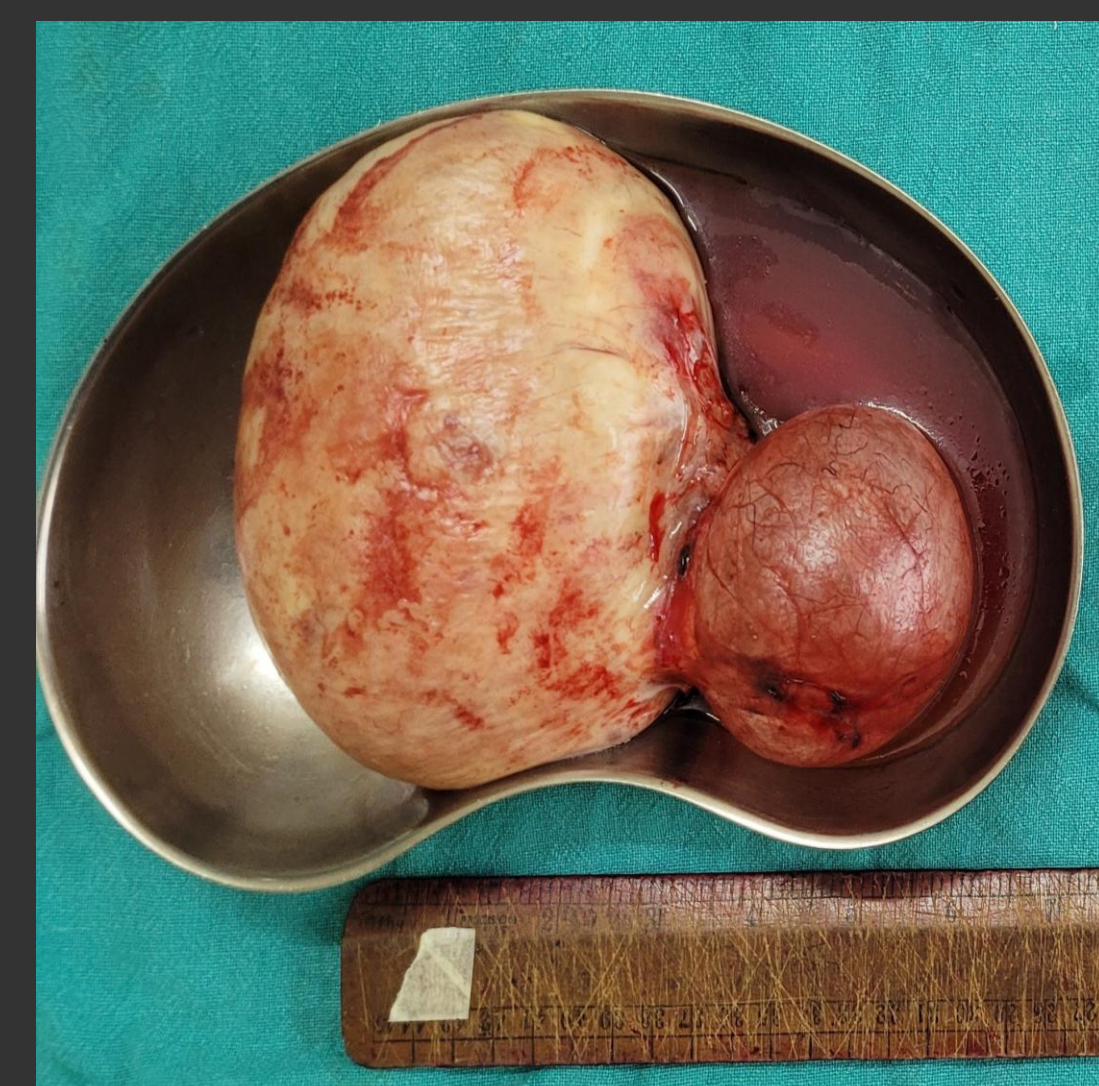


Figures 2, 3, 4, 5: Ultrasound images of the abdomen and pelvis

- Obstetric scan revealed a single-live intrauterine gestation corresponding to 16 weeks.
- Pelvic scan revealed a well defined solid lesion in the left adnexa with interal vascularity on colour doppler.
- There was also moderate ascites with perihepatic collection.

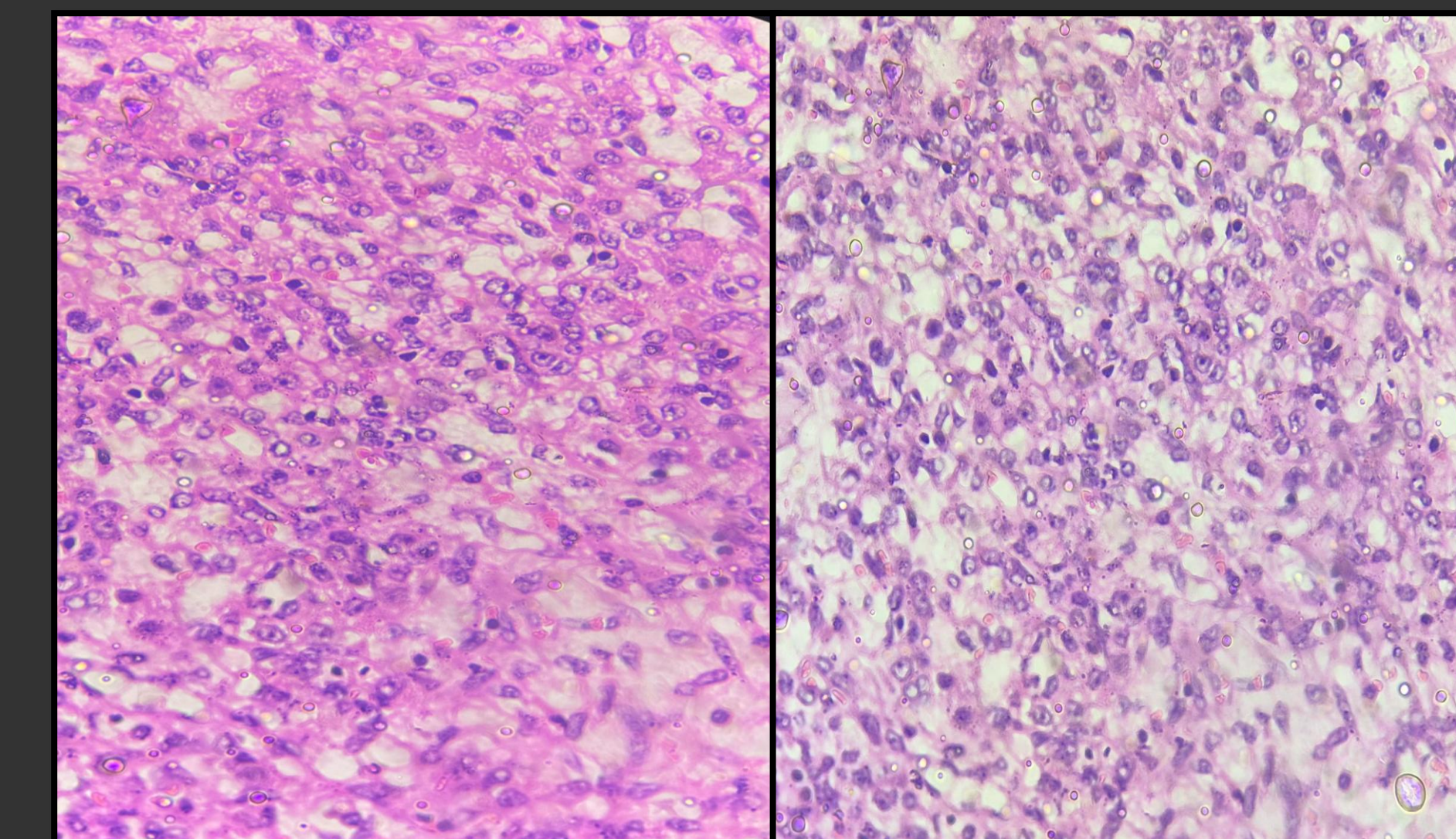


Figures 5, 6: MRI images of the abdomen and pelvis: MRI pelvis Showing mass lesion and ascites



Figures 7, 8 & 9: Gross and Microscopic Image of Luteoma

Histology shows a well-circumscribed lesion with cells in sheets and follicles. Cells are round to oval with eosinophilic cytoplasm, vesicular nuclei, and prominent nucleoli. Oedematous stroma with follicle-like spaces and mild inflammatory infiltrate confirms pregnancy luteoma.



Discussion:

- Pregnancy luteoma is a rare, benign, hormone-induced ovarian lesion during gestation.
- Mimics **ovarian malignancy** on imaging due to solid nature, vascularity, ascites, and raised CA-125.
- The present case involved a **solid-cystic mass with ascites and pleural effusion**, leading to suspicion of malignancy and surgical intervention.
- Literature supports **conservative management** if asymptomatic and identified later in pregnancy, as most regress postpartum.
- **Surgical exploration** is warranted in symptomatic cases or when malignancy cannot be ruled out.
- Misdiagnosis may lead to **unnecessary oophorectomy**, risking maternal-fetal complications.

Conclusion:

Pregnancy luteoma should be considered in the differential diagnosis of ovarian masses during pregnancy, particularly in patients with ascites and pleural effusion. A cautious diagnostic approach, including imaging and exploratory surgery, when necessary, can ensure appropriate management while avoiding overtreatment.

Dr. Gaurang Narayan, MBBS, PGDMLE,
Resident OBGY, IGGMCH – Nagpur,
Reach out at: gaurang.narayan@gmail.com