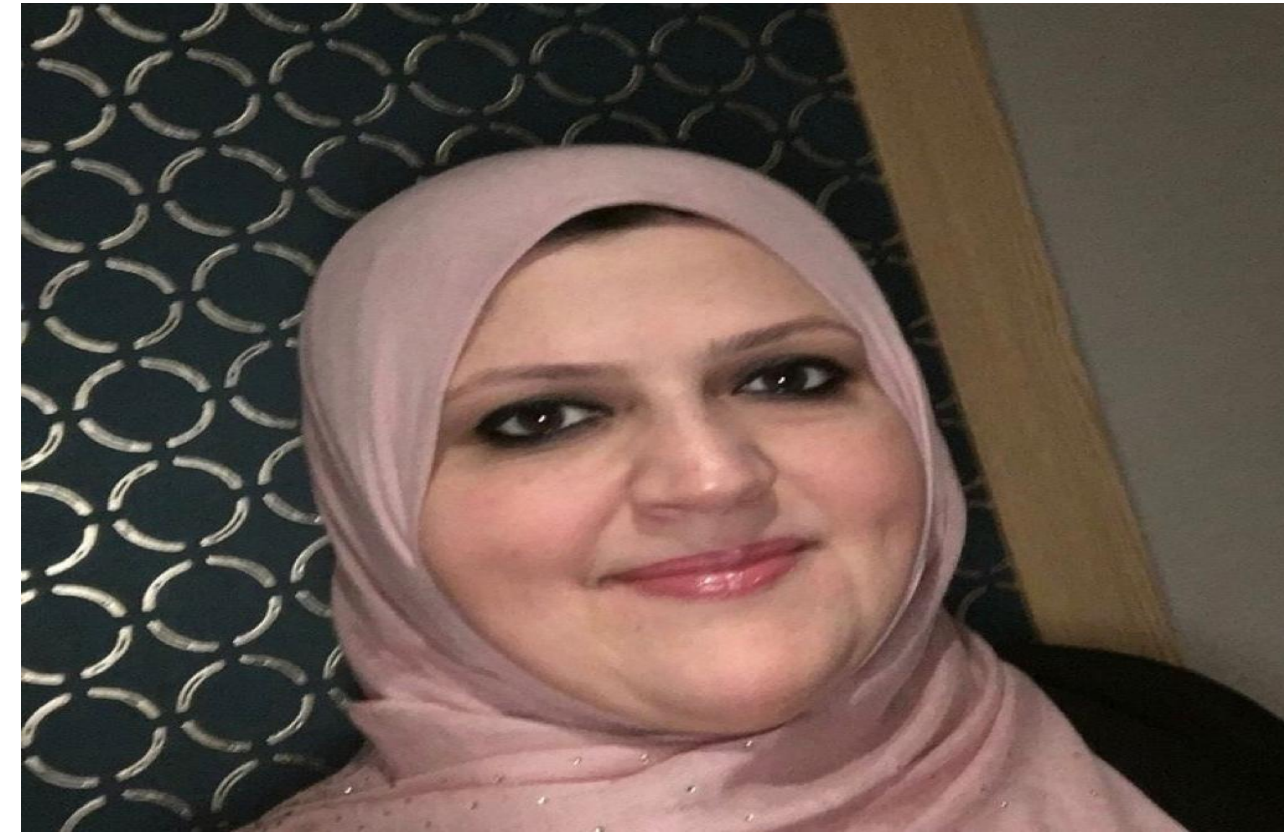


Progesterone Supplementation following laparoscopic management of heterotopic ectopic pregnancy

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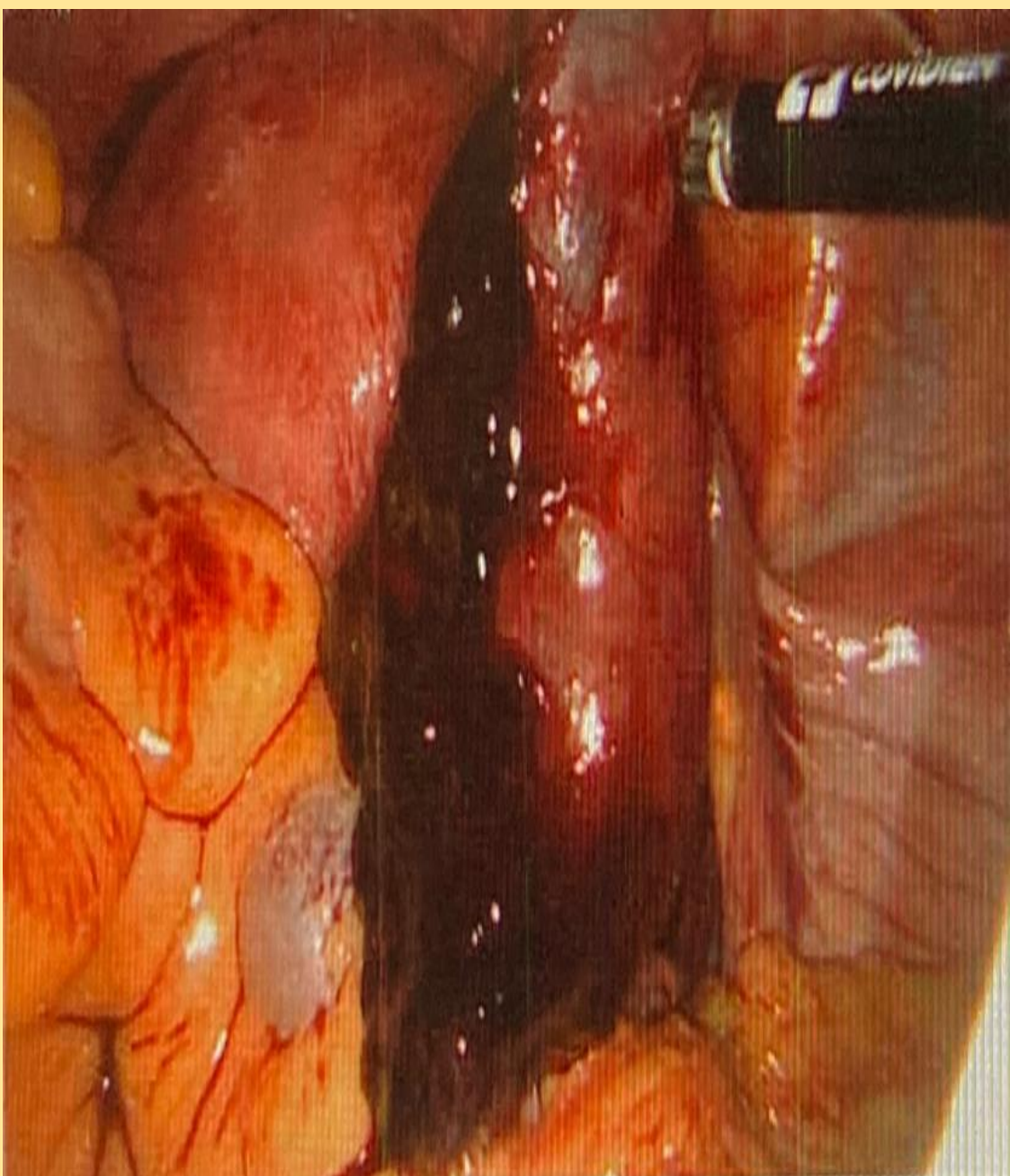


Introduction:

- Heterotopic pregnancy is defined as the coexistence of intrauterine and extra uterine pregnancies and is rare phenomenon with an incidence of 1 in 30,000 in spontaneously conceived pregnancies. TVS has a 33%¹ sensitivity therefore an index of suspicion is required to ensure patient safety and to avoid false reassurance.
- Women at increased risk of heterotopic pregnancy are likely also to have risk factors for poorer fertility outcomes, and salpingectomy in itself will reduce their future live birth rate, particularly relevant for women for whom both tubes are absent or damaged. Eom et al² demonstrated good intrauterine pregnancy outcomes following laparoscopic management of heterotopic pregnancies.
- Progesterone supplementation is now used to support higher risk early pregnancies as per updated NICE guideline NG126³. However, there is no literature relating to progesterone support for heterotopic pregnancies making the cost hard to justify and preventing proper counselling.

Case Summary:

- A 30 year old female (P1+1) attended with increasing right iliac fossa pain at 6w+5d pregnant by LMP achieved by planned, spontaneous conception. She had a history of laparoscopic appendectomy, previous right ectopic pregnancy managed by methotrexate injection and term vaginal birth with no relevant medical history.
- Transvaginal ultrasound revealed a singleton intrauterine pregnancy (GSD 13.7mm, CRL of 7.4mm, positive FH) consistent with 6+4 weeks of gestation and a single corpus luteum. A second gestation sac with positive fetal heart was identified in the right adnexa with some pelvic free fluid. Her BHcg was 49020 mIU/mL.



- Uncomplicated laparoscopic right salpingectomy was performed, without intra-uterine instrumentation or disruption of corpus luteum. The pelvis appeared otherwise normal. Histopathology confirmed right tubal ectopic pregnancy.
- The patient received vaginal micronized progesterone 400 mg twice daily with an ongoing pregnancy noted at 6+6 weeks of gestation but sadly suffered a missed miscarriage at 7weeks of gestation.

Conclusion:

- Existing evidence demonstrates good outcomes for women treated laparoscopically however this relies on careful assessment and prompt diagnosis.
- Ideally RCTs are required to evaluate the role of progesterone supplementation however due to the rarity of these cases, case presentations are likely to yield initial results, informing treatment planning and patient counselling. In the case, progesterone supplementation did not prevent miscarriage.

References:

- 1 Soares C et al: Early diagnosis of spontaneous heterotopic pregnancy successfully treated with laparoscopic surgery.
<http://dx.doi.org/10.1136/bcr-2020-239423>
- 2 Eom JM et al: Surgical and obstetric outcomes of laparoscopic management for women with heterotopic pregnancy.
<https://pubmed.ncbi.nlm.nih.gov/23875926/>
- 3 NICE guideline NG126 (update) Ectopic pregnancy and miscarriage: diagnosis and initial management [C] Progestogens for preventing miscarriage Evidence review underpinning recommendations 1.5.2 and 1.5.3 and research recommendations in the NICE guideline November 2021.