

Objective

This case highlights an interesting approach in managing interstitial ectopic pregnancy in a patient with cardiomyopathy.

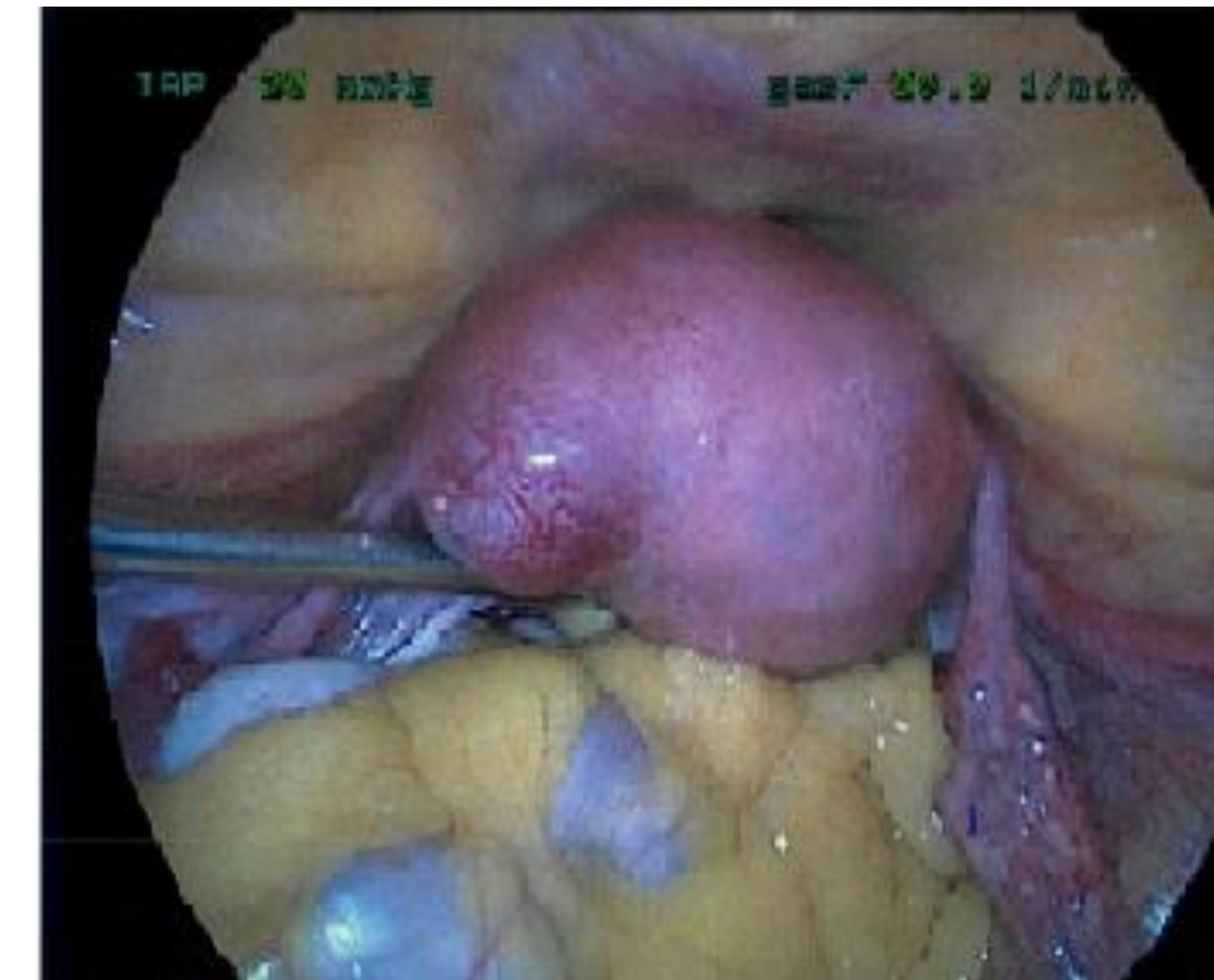
Case report

A 36-year-old woman, G5P3+1, presented to A&E with a 3-day history of mild vaginal bleeding and left iliac fossa pain. She was 6 weeks pregnant based on her last menstrual period. Past medical history included hypothyroidism and postpartum cardiomyopathy. She was on bisoprolol and ramipril for cardiomyopathy. She was haemodynamically stable. Clinical examination was unremarkable. Her β HCG was 13,325 IU/L and transvaginal ultrasound scan revealed a gestation sac with foetal pole measuring 7.4 mm (6 weeks 4 days) and a foetal heart beat. The sac was close to the left cornual region of the uterus. Free fluid was seen in POD.

She underwent diagnostic laparoscopy that confirmed a left interstitial ectopic pregnancy with signs of impending rupture. Given her history of cardiomyopathy, vasopressin or ergometrine injection, to control bleeding at the time of excision, were relatively contraindicated. Proceeding with laparotomy was therefore considered to be the best option to manage a potential haemorrhage. The ectopic was ligated at the superior and inferior end. An incision was made on top of the left uterine angle near tubal insertion and gestation sac scooped out intact. Following removal of the ectopic, continuity with uterine cavity was confirmed which supported the diagnosis of interstitial ectopic pregnancy. The uterine wall was closed in two layers and a left salpingectomy performed. Estimated blood loss was <100ml. Patient made an excellent recovery and β HCG was in the non-pregnant range in 3 weeks.

Discussion

Interstitial ectopic pregnancy constitutes 5% of all tubal ectopic pregnancies. It is associated with high morbidity and mortality therefore early management is crucial. The main challenge is difficulty in clinicosonographic diagnosis. Such cases have been reported to be successfully managed laparoscopically. Cardiomyopathy in our case posed an added challenge due to limited experience with the use of vasopressin or ergometrine in this condition. Ergometrine and vasopressin are known to cause marked constriction of coronary arteries and the resulting coronary spasm may lead to myocardial hypoxia¹.



Methotrexate was not considered due to presence of a fetal heart and high β HCG. Intra-sac hypertonic KCl to produce cardiac asystole combined with systemic methotrexate could potentially improve outcome in live ectopic gestations with very high serum BHCG titres². Failure rates reported are higher with systemic methotrexate alone in live ectopic gestations. However, individualized treatment with a stringent follow-up regime is mandatory in such cases³. Laparotomy was the preferred approach in our case and gave good outcome with minimal blood loss.

Conclusion

Interstitial pregnancies in patients with underlying cardiac conditions present unique challenges in management. We recommend an algorithm based approach for a successful outcome. Use of medications (methotrexate, vasopressin, ergometrine) should be carefully considered. Further research into the role of KCl and local/systemic methotrexate injections is needed.

References

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3. Dadhwal, V., Deka, D., Ghosh B. and Mittal, S. (2009) 'Successful management of live ectopic pregnancy with high beta-hCG titres by ultrasound-guided potassium chloride injection and systemic methotrexate', Archives of Gynaecology and Obstetrics, 280(5), pp. 799-801. doi: 10.1007/s00404-009-0983-6.