Laparoscopic Conservative Management of an Ovarian Ectopic Pregnancy: A Case Study

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INTRODUCTION

Ovarian ectopic pregnancies are a rare subtype comprising 0.3 - 3% of all ectopic gestations [1]. Although their aetiology is unknown, they have been most heavily associated with fertility management (18.1%) and contraceptive device use (19.3%) [2]. The management of ovarian ectopic pregnancy often dictates surgical resection of the ovaries. This case addresses the scarce incidence of ovarian ectopic pregnancies and the possibility of preserving ovarian function through rapid diagnosis and conservative management.

CASE REPORT

A 30-year-old female patient presented to A&E with sharp, sudden onset lower abdominal pain that had referred to her right shoulder with gradually increasing intensity over a 3-hour period. She described losing consciousness, accompanied with sweating, dizziness, blurred vision, nausea, and vomiting. She had two previous spontaneous vaginal deliveries.

At presentation, her blood pressure was 90/46, IMEWS score 3. Resuscitation was initiated immediately, and abdominal examination demonstrated severe lower abdominal tenderness and guarding. An urgent bedside ultrasound revealed fluid in the Pouch of Douglas and an appearance suggestive of internal bleeding. There was no evidence of an intrauterine pregnancy. Urgent serum B-hCG and other investigations were requested, with B-hCG levels found to be 4671 iu/L. A clinical diagnosis of ruptured ectopic pregnancy was made and the patient was counselled for a diagnostic laparoscopy and salpingectomy/oophorectomy.

Under general anaesthesia, a three-port laparoscopic entry was performed providing a good view of the peritoneal cavity. Approximately 700ml of blood and clots were aspirated. Laparoscopy revealed a normal looking uterus, tubes and right ovary. The lateral pole of the left ovary was bleeding and covered with a large, adherent blood clot. Once removed, a friable mass of trophoblastic tissue was revealed. This was removed with a grasper and a 1cm deep crater with minimal but active bleeding was noted. The edges and floor of the crater were cauterised and the bleeding was arrested.

Throughout the laparoscopic procedure, the following points of the Spiegelberg's criteria [3] were fulfilled :
(1) an intact ipsilateral tube, clearly separate from the ovary;
(2) a gestation occupying the normal position of the ovary;
(3) a gestational sac connected to the uterus by the utero-ovarian ligament;
(4) ovarian tissue in the wall of the gestational sac.

No further intervention was undertaken, and the ovary was conserved. Suction and irrigation was performed, and an intraperitoneal drain was inserted. Estimated blood loss was 1600mL. The patient recovered well and was discharged home 3 days postoperatively. Serum B-hCG dropped to 192iu/L on day 6, 24iu/L on day 13, and finally <5iu/L on day 20. Surgical specimen histopathology confirmed left ovarian ectopic pregnancy.

Figure 1: Laparoscopic image showing the left sided ovarian ectopic pregnancy.

DISCUSSION

Management of ovarian ectopic is typically surgical involving ovarian wedge resection, with oophorectomy or adnexectomy required in more advanced cases. Methotrexate use in early stage and unruptured cases has also been reported successful[4].

This case demonstrates that cauterisation of affected ovarian tissue without resection can also be effective if performed early. This approach enables minimal functional ovarian loss without sacrificing histopathological diagnosis, and may provide better patient outcomes by minimising surgical trauma and recovery. Considering the importance of fertility-preservation and swift recovery times for many patients, this makes cauterisation an important alternative option to be considered for the management of early ovarian ectopic pregnancy.

CONCLUSION

Surgery remains the gold-standard diagnostic and first-line management option for ovarian ectopic pregnancy, with wedge resection particularly preferred as a means of conserving the ovary [5]. However, our case demonstrates that cauterisation can be a viable alternative that enables safe management of the ectopic pregnancy whilst also conserving ovarian function. This highlights that, despite the existing progress in the treatment of ectopic pregnancy, there are still further conservative techniques to be explored [6].

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