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Case Report

Laparoscopic Conservative Management of an Ovarian Ectopic Pregnancy: Case Study

A Bou Kalfouni[1], H Abedlhafez[1], F Alhakmi[2], E Mimoglu[2] and R Sallam[3]*

[1]*Department of Obstetrics and Gynaecology, Regional Hospital Mullingar, Co. Westmeath, Ireland*

[2]*Imperial College London, London, United Kingdom*

[3]*St Luke's General Hospital, Kilkenny, Ireland*

***Corresponding Author:** R Sallam, St Luke's General Hospital, Kilkenny, Ireland.

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Abstract

Presentation: A 30-year-old female presented with sharp, sudden-onset lower abdominal pain referring to her right shoulder associated with loss of consciousness, sweating, nausea, and vomiting. She had a blood pressure of 90/60 and an IMEWS score of 3.

Diagnosis: Urgent bedside ultrasound revealed fluid in the Pouch of Douglas suggestive of internal bleeding, with no intrauterine pregnancy seen. A serum B-hCG level of 4671 iu/L led to a clinical diagnosis of a ruptured ectopic pregnancy.

Treatment: Laparoscopy revealed a friable mass of trophoblastic tissue on the lateral pole of the left ovary. Upon removal, a 1 cm deep crater with active bleeding was noted. This was arrested by cauterisation of the floors and edges.

Discussion/Conclusion: Cauterisation of affected ovarian tissue without resection can be an effective option for the management of ectopic pregnancy if performed early, enabling minimal functional loss without sacrificing histopathological diagnosis.

Keywords: *Laparoscopic Conservative Management; Ovarian Ectopic Pregnancy; B-hCG*

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 possibility of preserving ovarian function through rapid diagnosis and conservative management using cauterisation.

Case Report

A 30-year-old female patient presented to A&E with sharp, sudden onset lower abdominal pain referring to her right shoulder with gradually increasing intensity over a 3-hour period. Associated symptoms included losing consciousness, sweating, dizziness, blurred vision, nausea, and vomiting. She had two previous spontaneous vaginal deliveries. At presentation, her blood pressure was 90/46 and had an IMEWS score of 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 level was 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 700 ml of blood and clots were aspirated. The patient's uterus, tubes and right ovary appeared normal. 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 resected with a grasper, creating a 1 cm deep crater with minimal but active bleeding. Cauterisation of the edges and floor arrested the bleeding.

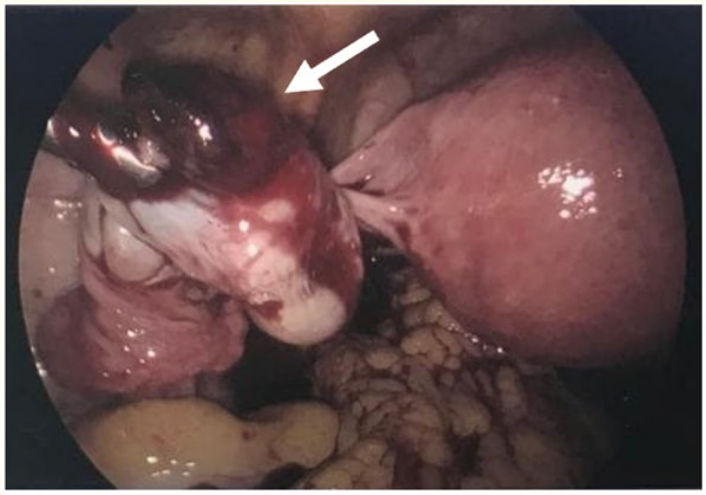

Figure 1: *Laparoscopic image showing the left sided ovarian ectopic pregnancy.*

Throughout the laparoscopic procedure, the following points of the Spiegelberg's Ovarian Ectopic pregnancies criteria were fulfilled [3]:

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 1600 mL. The patient recovered well and was discharged home 3 days postoperatively.

Serum B-hCG levels dropped to 192 iu/L, 24 iu/L, and finally < 5 iu/L on days 6, 13, and 20 respectively. Surgical specimen histopathology confirmed left ovarian ectopic pregnancy.

Discussion

Management of ovarian ectopic pregnancy is primarily surgical and typically involves ovarian wedge resection, with an oophorectomy or adnexectomy required in more advanced cases [4]. Methotrexate use in early stage and unruptured cases has also been reported successful [5].

Management of intraperitoneal bleeding to achieve haemostasis while preserving the ovary is a fundamental challenge to contemporary surgical techniques [6]. This case, alongside similar ones, demonstrates that cauterisation can be a viable alternative for safe early management of ectopic pregnancy by enabling minimal functional ovarian loss without sacrificing histopathological diagnosis [7,8]. This approach highlights that, despite significant developments in the management of ectopic pregnancy, there are still further conservative techniques to be explored that may provide better patient outcomes [9].

Conclusion

Cauterisation of affected ovarian tissue without resection can be an effective option for the management of ectopic pregnancy if performed early, enabling minimal functional loss without sacrificing histopathological diagnosis.

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