

CASE REPORT

Management of Tubal Stump Pregnancy after Salpingectomy

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ABSTRACT

Ectopic pregnancies constitute around 1–2% of all pregnancies, out of which 0.4% will be tubal stump ectopic pregnancy. Tubal stump pregnancy is a type of pregnancy implanted in the remnants of the fallopian tube post-salpingectomy. We describe a rare case of ectopic pregnancy in a 33-year-old gravida 2 on the tubal stump despite previous salpingectomy done on the ipsilateral side due to ectopic in the ampullary portion of the fallopian tube. In the previous pregnancy medical management was tried, however, beta-HCG continued to rise and the patient had to undergo laparoscopic surgery. She conceived normally again 4 months later and an early scan at 5 weeks again suggested ectopic on the same side. Being early gestation, methotrexate was tried again but the patient presented with hemoperitoneum 2 days later. During the laparoscopic procedure, it was discovered to be a tubal stump ectopic on the ipsilateral side where salpingectomy was previously done. The tubal stump was completely removed with electrocautery. The patient needed one packed cell transfusion; however, she recovered well and was discharged after one day. Tubal ectopic pregnancy is difficult to diagnose and treat compared to regular ectopic pregnancy. The chances of rupture are higher due to the location of the pregnancy which increases morbidity and mortality. Hence even after salpingectomy, the tubal stump ectopic should be considered in diagnosis.

Keywords: Case report, Hemoperitoneum, Salpingectomy, Tubal stump pregnancy.

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INTRODUCTION

Implantation in an isthmic portion of the tubal remnant of a previous salpingectomy is termed a tubal stump pregnancy. It's a rare form of ectopic pregnancy with an incidence of 0.4% of all ectopic pregnancies.¹ The mortality in such cases is high (around 2.0–2.5% compared to 1.4% with all other ectopic pregnancies). Both the diagnosis and treatment are a little tricky and comparatively more difficult. We present a case of ectopic tubal stump pregnancy where the patient presented with pregnancy in the ipsilateral tube, after a previous salpingectomy, with hemoperitoneum (Fig. 1).

CASE DESCRIPTION

In February 2022, the patient a 33-year-old gravida 2 was diagnosed with right-sided ectopic pregnancy. Initially, medical management was tried but beta HCG continued to increase and hence she underwent right salpingectomy. The pregnancy was in the ampullary part of the tube and it was confirmed by histopathology. She again missed her periods in July 2022 and beta-HCG was 1215 mIU/mL. Since she was previously ectopic, an early pregnancy scan was suggested. The first scan could not localize the gestational sac intra- or extrauterine. A repeat scan was done after 2 days which raised the possibility of adnexal ectopic on the right side. Assuming the unusual scenario, methotrexate was given. The beta HCG decreased from 4500 to 4000 after 2 days. However, the patient presented with low BP, dizziness, and loose motions raising the possibility of intra-abdominal hemorrhage which was confirmed on the scan, and a decision for laparoscopy was taken.

During surgery hemoperitoneum was present. The ectopic was found in the right adnexal region as a tubal stump in form of the bulbous out pouching which had ruptured and constant oozing was observed. The left tube was healthy. The right tubal stump was completely excised using cautery and hemostasis was achieved. Peritoneal wash was given. Excised tissue was sent for

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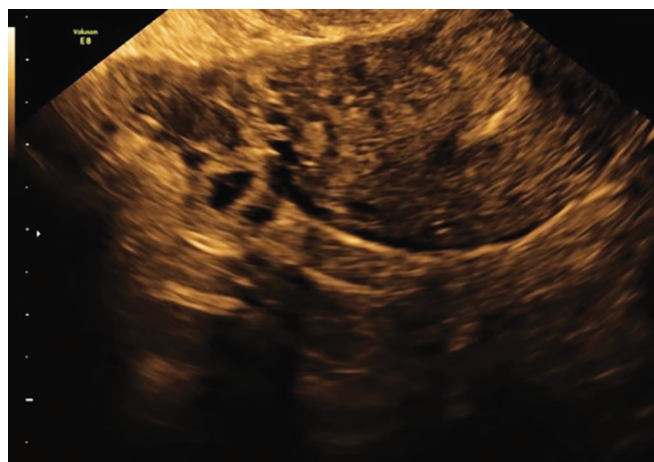


Fig. 1: Ultrasound picture of ectopic pregnancy

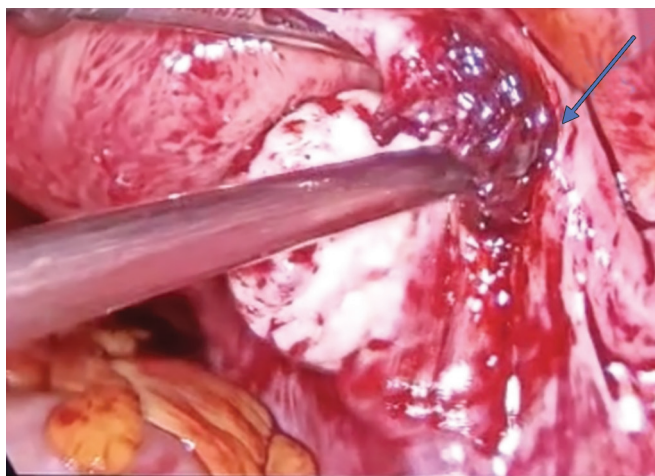


Fig. 2: Pregnancy tissue protruding from tubal stump (arrow)

histopathology. She was transfused with one unit of packed cells (Fig. 2).

DISCUSSION

Ectopic pregnancy is always a threat. About 1–2% of all pregnancies turn out to be ectopic, of which 90% are in the ampulla of the tube. The chances of ectopic pregnancies are rising due to lifestyle changes. Women who become sexually active earlier, and might contract *chlamydia* and *gonococcus* due to multiple partners. Childbearing age is also getting advanced with many such pregnancies coming through IVF, which contributes to increased incidences of ectopic over natural conception.² The chances of recurrence of ectopic pregnancy are 15% after one ectopic pregnancy and up to 30% after two. Even if a salpingectomy is performed, there is a remote chance that the tubal stump can have ectopic pregnancy on the ipsilateral side. Stump ectopic pregnancies are defined as implantation in the isthmic portion of the remnant tube after a previous salpingectomy.

There are two theories for the pathogenesis of tubal stump pregnancy. The first one says that a small foramen forms in the stump and fertilized ovum from the ovary implants into the tube directly. The second one says that fertilized ovum picked by the contralateral tube travels through the uterus and implants on the tubal stump.

The incidence is only 0.4% with few cases reported over the last decade. The delay in diagnosis and the chances of rupture in such pregnancies are high increasing the maternal mortality and morbidity to 2.0–2.5% as compared to 0.14% in regular ectopic pregnancies. The chances of rupture and internal bleeding remain high due to the inability of the tube to distend and due to high vascularity in that area. Ultrasound is the first diagnostic tool to detect such pregnancy.³ Diagnostic dilemma can arise due to close proximity to the ovary and it can be mistaken as a dominant follicle of the ovary. The ‘interstitial line sign’ is a specific sonographic method to diagnose interstitial or tubal stump pregnancy. It involves visualization of a line that is echogenic in intensity going into an interstitial ectopic mass of the mid portion of the tubal

stump. However, it is still not universally accepted. The use of high-resolution transvaginal scan or 3D scan can be helpful.

The treatment modalities include either medical management by methotrexate or surgery. The surgical management depends on the blood loss, the patient’s physical health, and comorbidities. Either laparotomy or laparoscopy can be chosen. The technique of laparoscopy tubal stump removal is almost the same as that of interstitial pregnancy. An incision is made from the serosa to the myometrium. The products of conception are removed by blunt, sharp, or hydrodissection or they might spontaneously get extruded. Vasopressin is also helpful in decreasing the vascularity of dissection.⁴ Electrosurgical coagulation also helps to control the hemorrhage. Occasionally sutures are required.

To prevent recurrence, how much of the tube should be left? The literature search does not yield any recommendations or guidelines. The isthmic portion of the tube is more vascular. Up to 20% of the blood supply for the ovary is derived from an isthmic portion of the tube. The use of electrocautery or incision can affect the ovarian reserve. Hence, it is a common practice to leave a stump of tube. There are two schools of thought. Many gynecologists feel that given the risk of recurrence, the remnant portion should be left as small as possible. Fulguration should be done sufficiently. However, Gaughran et al.⁵ proposed that the length of the stump should be left fairly long as it is the susceptibility of the patient to develop repeat ectopic and not the length of the tube which is important. They feel that bleeding risk is lower in longer stumps and surgery is less difficult in case of tubal stump ectopic.

CONCLUSION

Tubal stump pregnancy is difficult to diagnose, treat, and even get accepted by the patients. A high level of suspicion should be maintained at the time of scanning to arrive at the diagnosis. Even after near total salpingectomy recurrence is possible. Therefore, it should be kept in mind to look for tubal stump ectopic even when a history of salpingectomy is given.

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