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Case Report

A rare case of ectopic pregnancy: cornual pregnancy following salpingectomy

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ABSTRACT

The implantation of a fertilized egg outside the uterine cavity is known as an ectopic pregnancy, and usually occurs in the fallopian tubes. Few cases, have been reported where implantation has occurred in atypical sites. We report the case of an ectopic pregnancy that occurred in the residual stump after salpingectomy. It seems that a pregnancy implanted in this location is very uncommon, making correct diagnosis difficult. This paper includes a brief description of the case, a review of the different diagnostic and therapeutic methods available to this day, and a brief review of the literature.

Keywords: Interstitial pregnancy, Post-salpingectomy, Laparoscopy, Cornual pregnancy, Ectopic

INTRODUCTION

Ectopic pregnancies, found in about 1-2% of all pregnancies, most commonly occur in the fallopian tubes. However, implantation in unusual locations has also been documented, posing serious risks to maternal health.¹

About 10% of patients who have had an ectopic pregnancy will experience a recurrent ectopic pregnancy. Tubal stump pregnancy is unusual, Ko et al reported that tubal stump pregnancy after salpingectomy had a prevalence of about 0.4%.² We report a case of spontaneous tubal stump pregnancy after total salpingectomy.

CASE REPORT

A 29-year-old female patient presented to the emergency department complaining of sudden onset of pain in the left iliac fossa. Gravida 3 para 1 with a history of left ectopic pregnancy treated by total salpingectomy.

She had amenorrhea for 7 weeks. Her serum human chorionic gonadotropin (HCG) level was 5430 IU/L and a

pelvic transvaginal ultrasound showed an empty uterus, with no latero uterine mass or effusion in the cul sac.

This clinical scenario involved a pregnancy of indeterminate location. thus, emergency laparoscopy was performed. At laparoscopy, there was no free blood in the pelvic cavity, and on the left salpingeal stump, an ectopic pregnancy was noted (Figure 1).

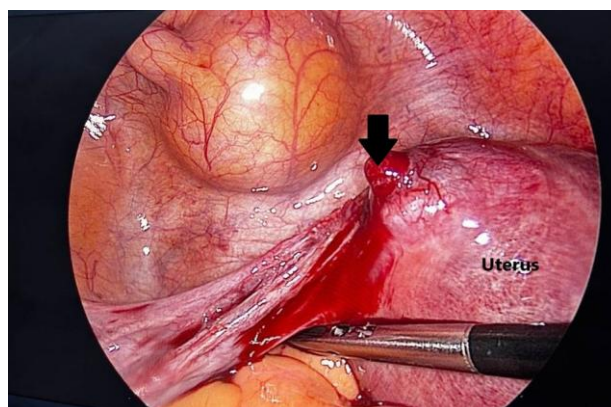


Figure 1: The pregnancy in the left tubal stump (Black arrow).

The uterus was of normal size, its surface was smooth, and no abnormalities were seen in the bilateral ovary morphologies. No obvious abnormalities were found in the right fallopian tube. The left salpingeal stump tube was removed, and villous tissue was found in it (Figure 2).



Figure 2: The villous tissue was present within the pregnancy sac of the left tubal remnant.

The pelvic cavity was washed with saline solution, and the operation was ended. On the first day following the surgery, the patient's HCG levels decreased to 850 IU/L. The blood HCG levels continued to decline, and the patient's recovery proceeded without complications. The patient was discharged on the second postoperative day and received follow-up care in an outpatient setting. Histological analysis indicated the presence of trophoblastic tissues, confirming the diagnosis of an ectopic pregnancy.

DISCUSSION

Ectopic pregnancy, a condition where the fertilized egg implants outside the uterine cavity, most commonly occurs in the fallopian tubes (95%).³

However, implantation in a residual tubal stump after salpingectomy is a rare phenomenon, with few cases noted in the literature, the reported incidence of such pregnancies ranges from 0.3% to 4.2%.⁴

The present case highlights several important aspects of ectopic pregnancies in residual tubal stumps. First, the clinical presentation was non-specific, with symptoms of lower abdominal pain and elevated serum HCG levels, but imaging studies failed to localize the ectopic pregnancy. This underscores the diagnostic difficulty, as traditional methods such as transvaginal ultrasound may not always detect the implantation site.

Three main theories have been proposed to explain the phenomenon of ectopic pregnancies following ipsilateral

salpingectomy. The first suggests that fertilization occurs in the contralateral fallopian tube, after which the fertilized ovum migrates through the endometrial cavity to the remnant of the affected tube. The second theory posits that incomplete salpingectomy, possibly due to insufficient diathermy, allows recanalization, enabling the ovum from the affected side to reach the tubal remnant. The third theory hypothesizes that spermatozoa traverse the functional fallopian tube and fertilize an ovum on the previously damaged side.⁵⁻⁷

Usually, the management of ectopic pregnancy is determined by the progression of gestational age and individual analysis of the clinical situation, such as GS size, presence of fetal heartbeat, β -hCG levels, vaginal bleeding, hemodynamic status, pelvic pain and fertility goals. Typical approaches include surgical procedure such as salpingectomy or salpingostomy, treatment with methotrexate (MTX) or expectant management.⁸

In cases of cornual pregnancy following salpingectomy, resecting the fallopian tube and ensuring adequate coagulation of the remaining tissue may help prevent recurrence.

Given the risk of severe hemorrhage and mortality, emergency clinicians should include this diagnosis in the differential for patients with a history of ipsilateral salpingectomy. Prompt recognition, the use of appropriate imaging techniques, and early consultation with obstetrics can significantly reduce morbidity and mortality in these cases.⁹

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