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Laparoscopic Treatment of Torsion of the Adnexa in Pregnancy: A Case Report

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ABSTRACT. To report a case of laparoscopic untwisting of the adnexa in pregnancy followed by unilateral salpingo-oophorectomy. Case Report and literature review. A 26-year old, G1 PO, 12 week pregnant woman was admitted with a sudden onset of lower abdominal pain. Examination showed that the lower abdomen was tender. Pelvic examination revealed a 12-week sized uterus and exquisite tenderness with ill-defined fullness in the right adnexa. Ultrasonography confirmed the presence of 10 x 8 cm right adnexal mass. At laparoscopy, a 10 x 8 bluish-black, ischemic adnexa was seen. With gentle manipulation, the adnexa was untwisted 720 degrees around the ovarian pedicle. Nevertheless, normal color did not reappear and there was no evidence of normalization of ovarian perfusion. Therefore, right adnexectomy was performed through a Pfanenastiel incision. Final pathology confirmed infarcted and necrotic adnexa. Conservative laparoscopic treatment of adnexal torsion is gaining popularity. Presented here is a case of infarcted adnexa despite untwisting. Lack of normal color and ovarian perfusion after laparoscopic untwisting calls for removal of the adnexa.

Keywords: Laparoscopic, Pregnancy, Adnexa

Introduction

Adnexal torsion is a serious gynaecological emergency. The exact incidence is not known. However, it is estimated that it accounts for 3% of all operative gynaecological emergencies[1]. Traditionally, the treatment of adnexal torsion has been unilateral salpingo-oophorectomy[2]. This is prompted by the assumption that a bluish-black ap-

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pearing adnexa is nonviable, and the concern of thromboembolism from the thrombotic vessels in the twisted pedicle. Adnexal torsion occurs most commonly in the reproductive years. Hence, untwisting and preservation of the adnexa had been advocated[3,4], and even recommended[5], for young women.

A case of laparoscopic untwisting of the adnexa during pregnancy will be presented and the literature regarding adnexal torsion will be reviewed.

Case Report

A 26-year-old (G1 P0, 12-weeks pregnant) was admitted with sudden onset of lower abdominal pain. Examination showed a tender lower abdomen. Pelvic examination revealed a 12-week-size uterus and exquisite tenderness with ill-defined fullness in the right adnexa. Laboratory values were within normal range. Ultrasonography confirmed the presence of a 10x8 cm right adnexal mass. Operative laparoscopy was performed using a three-puncture technique. The uterus was 12 weeks in size and the left adnexa was normal. On the right there was a 10x8 cm right bluish-black ischemic adnexa. With gentle manipulation, the adnexa was untwisted 720 degrees around the ovarian pedicle. Nevertheless, after a period of observation, normal color did not reappear and there was no evidence of normalization of ovarian perfusion. Therefore, right adnexectomy was performed through a Pfannenstiel incision. The patient was discharged home on the 3rd postoperative day. Final pathology confirmed infarcted and necrotic adnexa. Follow-up ultrasound 2 weeks later documented a viable fetus. She subsequently had an uneventful pregnancy and gave birth to a full-term baby.

Discussion

The exact incidence of torsion of the adnexa is not known. However, it is estimated that it accounts for 3% of all operative gynaecological emergencies[1]. In pregnancy, adnexal torsion is an unusual and serious complication occurring most frequently in the first trimester. It is often difficult to diagnose due to non-specific clinical and ultrasonographic findings.

The treatment of adnexal torsion, traditionally, has been unilateral salpingo-oophorectomy since ischemic-looking adnexa is thought to be nonviable and there is a risk of thromboembolism with conservative management. Unfortunately, adnexal torsion occurs most commonly in the reproductive years. To avoid the tragic loss of the ovary and Fallopian tube in young women, Way[3] in 1946, based on 15 cases, suggested untwisting of the adnexa and preservation of adnexa if normal color reappeared. Similarly, McGowen[4] in 1964, based on 11 cases, proposed that detorsion is a safe alternative to salpingo-oophorectomy in the young woman.

In 1993 Oelsner *et al*[5] challenged the rationale for salpingo-oophorectomy for adnexal torsion. They reported a case series of 40 patients with ovarian detorsion. Bluish-black ischemic adnexa was not a contraindication for detorsion and preservation

of the adnexa. This report contained data on follow-up of patients after conservative management. Thirty-seven patients had a mean follow-up of 4.07 years (range 1 to 10 years). In 35 of 37 women, a normal-size ovary with follicles were documented. Thirteen of 18 women desiring pregnancy were able to conceive.

In 1993 McHutchison *et al*[6] quoted <15% salvage rate of the adnexa with detorsion when they reviewed the literature from 1946 to 1992. This rather low salvage rate may reflect the delay in diagnosis. Early diagnosis and treatment are of paramount importance to allow conservative management. Recently, color Doppler ultrasonography was found to be highly specific in ovarian torsion[7].

In 1994 Busine and Murrilo[8] characterized the frequency of conservative laparoscopic treatment of adnexal torsion during pregnancy as "very few". This may stem from the fact that operative laproscopy during pregnancy requires special training and is not practiced by many gynaecologists.

The case reported herein illustrates the usefulness of observation for return of normal color and ovarian perfusion after laparoscopic untwisting. Lack of normal color and perfusion of the adnexa after untwisting suggested infarction and prompted removal of the adnexa. Final pathology confirmed infarcted and necrotic adnexa.

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استخدام التنظير البطني لعلاج التواء الأجزاء التابعة للرحم (قناتي فالوب، المبيضين) أثناء الحمل

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المستخلص. الهدف من هذه الدراسة هو تقرير حالة من حالات التنظير البطني لحل أو فك الأعضاء المجاورة للرحم مثل قناتي فالوب والمبيضين، ثم تلتها بعد ذلك عملية إزالة قناة فالوب والمبيض المصاحب لها جراحياً. كانت الحالة لسيدة بالغة من العمر ٢٦ سنة، حامل في حوالي ١٢ أسبوعاً، عندما أدخلت إلى قسم التنويم كانت تشكو من ألم مفاجيء في أسفل البطن. من خلال الفحص وجد أنها تعاني من آلام موجعة عند اللمس، كما أظهر فحص الحوض لديها أن حجم الرحم يدل على مضي ١٢ أسبوعاً من الحمل. مع وجود ألم حاد عند اللمس، مصحوب بانتفاخ في أعضاء الجانب الأيمن من الحوض، كما أثبت الفحص بإستخدام الأشعة فوق الصوتية (باستخدام الموجات ما فوق ٣٠٠,٠٠٠ هيرتز) وجود كتلة في أعضاء الحوض كان حجمها ٨×١٠سم. ومن خلال استخدام التنظير البطني ظهرت كتلة حجمها ٨×١٠ سم وكانت زرقاء اللون تميل إلى السواد، حيث كانت قناة فالوب، وكانت هذه الكتلة تفتقر إلى وجود الدم بها (نظراً لوجود عقبات تعترض تدفق الدم في الشرايين المغذية لها) وبمعالجة رقيقة باليد، وباستخدام وسائل ميكانيكية تم فك قناة فالوب بحوالي ٧٢٠ درجة حول عنق المبيض، ومع ذلك لم يستعاد اللون الطبيعي ولم يكن هناك مؤشر أو دليل على استعادة الدم المغذي للمبيض إلى حالته الطبيعية ولذلك فقد تم استئصال توابع الرحم (قناة فالوب اليمنى والمبيض المتصل بها) جراحياً من خلال عمل شق بفانيناستيل (وهو عبارة عن شق مستعرض يُجرى

خلال الغلاف أو الغشاء الخارجي لعضلة البطن المستقيمة بحوالي بوصة واحدة فوق عظمة العانة، حيث يتم شق وفصل العضلة في اتجاه خيوطها، وينسب هذا الشق للطبيب الألماني هيرمان جوهان أخصائي أمراض النساء والتوليد عام ١٨٦٢-١٩٠٩. أخيراً، أشارت دراسة معمل الباثولوجي إلى وجود انسداد يعيق وصول الدم من الأوعية الدموية مثل الشرايين والأعصاب إلى أجزاء الجزء المصاب نتيجة لالتوائه، كما دلت أيضاً على موت الأنسجة الحية لتوابع الرحم (قناة فالوب والمبيض). نستنتج أن الوسيلة الوقائية باستخدام التنظير البطني لمعالجة التواء توابع الرحم قد نالت الاستحسان .