# Isolated Torsion of a Left Normal Fallopian Tube during Pregnancy

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### **Abstract**

We present here a case of isolated torsion of a left normal fallopian tube at 37 weeks' gestation. Although uncommon, especially on the left side, torsion of the fallopian tube should be included in the differential diagnosis of abdominal pain during pregnancy.

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Key words: isolated torsion, left normal fallopian tube, pregnancy

### Introduction

Isolated torsion of a fallopian tube is rare, especially in pregnancy<sup>1-5</sup>. For example, Origoni et al.<sup>1</sup> reported in 2009 that a Pubmed search for isolated fallopian tube torsion in pregnancy with surgical treatment yielded only 19 cases. We present here a case of isolated torsion of a left normal fallopian tube at 37 weeks' gestation.

# Case Report

A 37-year-old woman, gravida 1, para 0, whose antenatal care had been uneventful, was admitted with premature rupture of the membranes, sharp left lower abdominal pain, intermittent cramping, and nausea at 37 weeks' gestation. Abdominal examination revealed mild tenderness at the left uterine angle. There was no rebound tenderness. Ultrasonography showed no abnormal findings, such as cystic or solid structures in the abdomen. Body temperature and blood pressure were increased to 36.9°C and 180/90 mmHg, respectively. In addition, the hematocrit and platelet count were normal,

whereas the white blood cell count had increased from 5,510/mm³ at 35 weeks' gestation to 10,100/mm³ with 91% neutrophils at admission. Cesarean section was performed because of possible intrauterine infection and a severe hypertensive disorder.

The neonate was a healthy female weighing 2,360 g (appropriate for gestational age) with Appar scores of 9 and 9 at 1 and 5 minutes, respectively. The umbilical arterial pH was 7.362. The placenta weighed 528 g and showed no signs of infection. Because the left fallopian tube was slightly edematous and hyperremic and had twisted around itself twice (Fig. 1), left salpingectomy was performed. The resected left fallopian tube showed no evidence of inflammatory disease, adhesions, or anatomic abnormalities. In addition, there were no (para) tubal or (para) ovarian tumors or pelvic adhesive diseases. Histologic examination showed that the left fallopian tube had only edema and congestion associated with circulatory disturbance due to torsion. The right fallopian tube and both ovaries appeared normal. After cesarean section, the patient required antihypertensive medications for 4 days.

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Fig. 1 Intraoperative finding of isolated torsion of the left fallopian tube

### Discussion

Fallopian tube torsion has been reported more often on the right side than on the left1-5. For example, Origoni et al.1 has found a clear predominance of right-sided lesions (89.5%); to date only 2 cases of left fallopian tube torsion related to tube abnormalities (paratubal/paraovarian cysts) have been reported<sup>3,4</sup>. Therefore, to our knowledge the present case is the first of isolated torsion of the left fallopian tube without tube abnormalities during pregnancy. The predominance of right-sided lesions has been suggested to be due to the presence of the sigmoid colon on the left or to slow venous flow on the right side resulting in congestion of the tube<sup>1,2</sup>. Another possible reason is a greater willingness to explore right-sided abdominal pain because of the possibility of appendicitis; in contrast, left-sided cases may be missed and resolve spontaneously<sup>3-5</sup>.

Although the present patient had typical symptoms of fallopian tube torsion reported previously<sup>1-5</sup>, such as lower abdominal pain with intermittent cramping, nausea, and abdominal tenderness, we did not suspect adnexal torsion

preoperatively because we found no cystic or solid structures at the left uterine angle. Torsion has generally been reported to occur in abnormal fallopian tubes<sup>1,2</sup>. Thus, the preoperative diagnosis of fallopian tube torsion is usually made on the basis of the finding on ultrasonography of adnexal cysts on the same side as the abdominal pain, and the preoperative diagnosis has been reported to be correct in only 37% of cases of fallopian tube torsion during pregnancy<sup>1</sup>. The preoperative diagnosis of torsion of normal-sized fallopian tubes with normalsized ovaries, such as in the present case, is extremely difficult. In the present case, the body temperature and white blood cell count increased only slightly and remained within the normal ranges. Thus, we might not have performed laparotomy immediately if the blood pressure had been normal.

Although uncommon, especially on the left side, torsion of a fallopian tube should be included in the differential diagnosis of abdominal pain during pregnancy.

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