

Tubo-Ovarian Abscess During Pregnancy: A Case Report

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Citation

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Abstract

Tubo-ovarian abscess is rarely observed in pregnancy. Its occurrence increases the maternal and fetal morbidities and mortalities. The clinical presentation varies from unruptured to ruptured abscess with franc peritonitis. We present the case of a right tubo-ovarian abscess discovered at 14 weeks gestation that was managed by surgical drainage and parenteral antibiotic administration. Subsequent follow up of the woman resulted in a normal delivery at 38 weeks gestation.

INTRODUCTION

Tubo-ovarian abscess (TOA) in pregnancy is rare and is associated with increased maternal and fetal morbidities and mortalities.¹ Due to anatomical and physiological changes in pregnancy, the clinical picture of this abscess is usually misleading. Diagnosis with ultrasound presents difficulties with the differential diagnosis of other ovarian masses usually encountered in early pregnancy. Therefore the diagnosis of TOA is sometimes made during exploratory laparotomy. We report a case of TOA discovered per operatively at 14 weeks gestation, surgical drainage with antibiotic cover and subsequent pregnancy follow-up resulted in the term delivery of a live baby.

CASE REPORT

A 25 year old G2P1001 married woman was received at 14 weeks gestation for right iliac fossa pain, which started about a week before consultation, accompanied by a 38.4°C fever. She took Amoxicillin and paracetamol tablets as auto-medication, without any improvement.

On admission she presented with an antalgic position (thigh flexed on the trunk). Her blood pressure was 110/70mmHg, pulse rate of 80/min. There was tenderness of the right iliac fossa. Speculum examination was normal. Digital vaginal examination revealed a median, long, closed cervix with cervical excitation tenderness; a bulky uterus of about 14 weeks gestation and a right adnexal tenderness. A standard ultrasound scan was done and revealed a right ovarian cyst with a volume of about 155ml, and a normal singleton intrauterine pregnancy. Her HIV serology was negative. A laparotomy, carried out for suspected sub torsion of a right ovarian mass, discovered a right TOA of about 7cm

diameter. The appendix was grossly normal. The abscess was sampled for bacteriology (*Klebsiella pneumonia* sensitive to Ceftriazone), and then drained.

She received for seven days intravenous antibiotics (Ceftriaxone, Metronidazole), and tocolytics and was discharged 10 days after.

She was seen monthly for routine antenatal consultations. Other routine antenatal tests were normal. She was prescribed hematinics and prophylaxis against malaria and at 38 weeks of gestation she had a normal vaginal vertex delivery of a male neonate whose birth weight was 2732 grams. Apgar scores were 8 and 10 in the 1st and 5th minute respectively. Her post partum was uneventful and she was discharged two days post partum. Her sixth week post partum routine consultation was also uneventful.

DISCUSSION

Tubo ovarian abscess (TOA) is a collection of pus involving the ovary and fallopian tube (distal part). Tubo-ovarian abscess is relatively rare in pregnancy, because pelvic infection renders fertilisation and implantation almost impossible, furthermore with pregnancy the thick cervical mucus acts as a mechanical barrier. Hence, ascension of germs is difficult.

TOA most often arises as a consequence of pelvic inflammatory disease (PID). However, TOA can also develop following pelvic surgery, or as a complication of an intra abdominal process, such as appendicitis or diverticulitis.² Proposed pathogeneses of TOA during pregnancy are variable and include hematogenous spreading, lymphatic spreading from contiguous organ, infection in a previously existing ovarian cyst, and flare-up of an old infection.³ In some reports, TOA was thought to result from

ascending infection caused by gonococci attached to motile spermatozoa.⁴ Use of assisted reproductive technology, and structural uterine abnormalities suggested other possible causes of the formation of TOA during the gestational period.⁵ Ovarian abscess is also a known complication of transvaginal oocyte retrieval or transcervical embryo transfer.⁶

No obvious cause was present in our patient. Since infection needs about 6 weeks to 6 months to develop up to the stage of an abscess,² we think the germ might have been contracted before or during the fertile period as suggested by James et al.⁴

Patients with TOA usually present with wide range of clinical symptoms. A woman with a ruptured ovarian abscess presents with features of diffuse peritonitis. An unruptured abscess is more difficult to diagnose because of variable clinical presentation. Most common presenting symptom is an indolent onset of abdominal pain, as in our case. Low-grade fever which was present in our case is the only presentation in 50% of cases. Fetal loss rate of 50% has been reported most often as spontaneous septic abortions. A delay in diagnosis may be associated with risk of maternal death.¹

Differential diagnosis of a painful adnexal mass in pregnancy may include ectopic pregnancy, appendicitis, and adnexal torsion.

Unruptured abscess may be given supportive care and treated by preoperative broad-spectrum intravenous antibiotics effective against gram positive, gram negative and anaerobic bacteria for at least 72 hours before operative

intervention. Ruptured tubo-ovarian abscess requires an aggressive and primarily surgical approach in order to minimize catastrophic sequelae. Surgical drainage of tubo-ovarian abscess or conservative procedures under antibiotics is recommended during pregnancy.

There is fertility impairment following TOA given that the tubes are involved in the disease.²

CONCLUSION

Although TOA is rare in pregnancy, given that it is associated with poor outcomes for both the mother and the fetus, we should always think of it in the case of a painful adnexal mass associated with low grade fever. Surgical drainage with seven to ten days parenteral antibiotic administration and subsequent pregnancy follow-up can lead to term delivery.

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