CASE REPORT

Tubo-Ovarian ectopic pregnancy: A rare twin ectopic pregnancy

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Abstract

The most common twin ectopic pregnancy is heterotopic (1/7000). We are reporting a rare case of twin tubo-ovarian ectopic pregnancy, which was presented in the emergency department of Ayub Teaching Hospital Abbottabad. A 30-year-old female arrived with worsening lower abdominal pain persisting for three weeks. She also had per-vaginal bleeding with passage of clots 1week ago. Clinical examination revealed a tense abdomen with tenderness in the left iliac fossa. Per-vaginally, there was cervical motion tenderness and fullness in the posterior fornix. Beta HCG level revealed a sub-optimal rise whereas Transabdominal ultrasound showed an echogenic shadow in the left ovary. The uterus appeared normal. On exploratory laparotomy a large left ovarian mass was seen with ruptured chronic right tubal pregnancy with adhesions. On cut-section of the ovary, a small foetus was evident. We have concluded that in case of subacute abdominal pain and an-echogenic mass on ultrasonography in reproductive age contralateral adnexa should be accessed to exclude contralateral ectopic pregnancy.

Key words: Ovarian Pregnancy, Laparotomy, Tubal Ectopic.

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Introduction

Ectopic pregnancies is the foremost common cause of maternal morbidity and mortality in the first trimester. Pregnancy in ovaries is a less common type of ectopic pregnancy, accounting for 0.5-3% of cases. Its frequency is 1/7000-1/40,000 spontaneous pregnancies.[1] The figures of tubal twin pregnancy is 1:200 while live twin tubal ectopic pregnancy is 1:125,000.[2] The risk factors associated with Ectopic and heterotopic ectopic pregnancy are similar such as history of pelvic inflammatory diseases, infertility treatment, use of assisted reproductive technology, pelvic or abdominal surgery, tubal reconstruction/repair, history of previous ectopic, endometriosis and Diethylstilbesterol. The less common risk factors include Aging, smoking, hormonal imbalance, uterine anomalies and intrauterine devices (IUCD). High risk of ectopic should be considered in female patients presenting with acute abdomen and shock. Ultrasound plays a key role in diagnosing uncommon ectopic pregnancies. The sensitivity of ultrasound varies from 26.3-92.4% while laparoscopy is the gold standard for diagnosis and carries an accuracy of 96.3%.[3] In case of stable ovarian ectopic pregnancies, the patient's serial beta HCG levels and ultrasound should be performed as it can escalate with time while corpus luteal cyst involutes gradually. Non-tubal ectopic pregnancy often leads to dreadful complications like haemorrhagic shock, organ rupture etc. due to late presentation. Most common twin ectopic pregnancy comprises of heterotopic (1/7000) but we are reporting a rare case of twin tubo-ovarian ectopic pregnancy.[4]

Case Presentation

A 30-year-old female Gravida 5 Para 4 Abortion 0 Alive 4 - all vaginally delivered, was admitted in Gynae and Obstetrics unit through the emergency department of Ayub Teaching Hospital Abbottabad, on 19 November, 2022 with a gestational amenorrhoea of 10 weeks. The patient had been experiencing lower abdominal pain for three weeks, which intensified over the last 5-6 hours. She also had a history of per vaginal bleeding from past one week. Bleeding was accompanied by passage of blood clots and abdominal pain. She had conceived spontaneously and there was no previous history of PID, miscarriage, fertility treatment and abdomen or pelvic surgery. Clinical examination revealed a conscious woman with mild pallor of palms and conjunctiva. Her mucous membranes were moist, her blood pressure was 110/80 mmHg with a strong and regular pulse of 89 beats per minute. The respiratory rate was 18 breaths per minute with spontaneous Spo_2 of 94%. The abdomen was tense with tenderness in the left iliac fossa, which was without rebound tenderness or guarding. Per vaginal examination revealed an anteverted mobile uterus of 6-weeks size, posterior fornix fullness extending to the left fornix, cervical motion tenderness was present with no observed bleeding. Based on the history and clinical examination, a provisional diagnosis of left ectopic pregnancy was made. This was supported by a positive urine pregnancy test followed by an optimal rise of serum beta HCG level(17574IU/mL); Abdominal ultrasound revealed an

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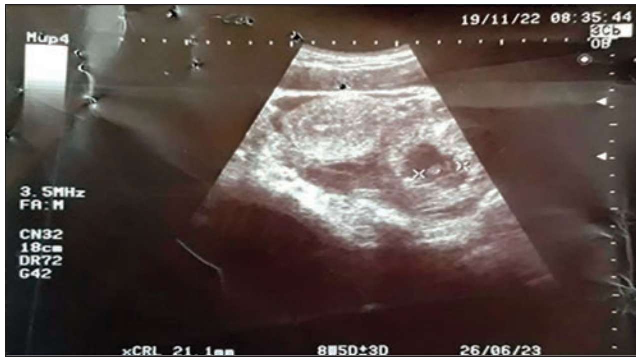

Figure-1: Showing echogenic shadow and gestational sac in left ovary.

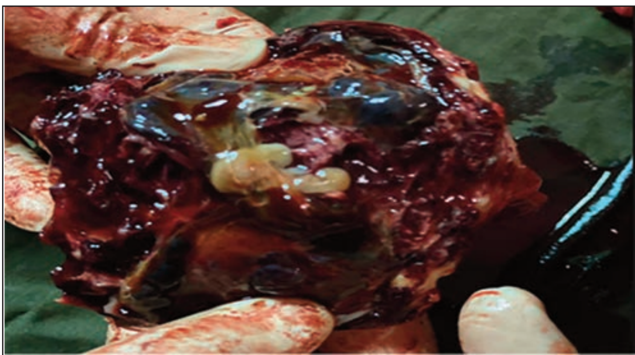
Figure-2: Showing ectopic embryo implantation in ovary, on cut section.

echogenic shadow in the left ovary as shown in Figure 1, while the uterus was non gravid and of normal size. During exploratory emergency laparotomy, a large left ovarian mass was seen with ruptured chronic right tubal pregnancy and adhesions. Approximately 250 cc clots were removed from the peritoneum. On cut section of the ovary a small foetus was evident as shown in Figure 2. Both tubal pregnancy and intra ovarian pregnancy were confirmed on histological analysis. The patient was eventually discharged from the hospital within 05 days in a status of good health.

Discussion

Primary ovarian ectopic with concomitant tubal twin ectopic is a rare twin ectopic pregnancy. Our case presented with abdominal pain and a history of per-vaginal bleeding accompanied with presenting features that coincide with the most common symptoms of ovarian ectopic pregnancies, as reported by Nguyen KP et al.[5] In our case no significant traditional risk factor was found for tube-ovarian ectopic pregnancy, findings reported by different studies.[5,6] In singleton ectopic β HCG level rises suboptimal, but in our patient Q β HCG was immensely raised (17574IU/mL), the reason could be large trophoblastic tissue size in twin ectopic.[4] We confirmed the diagnosis of ovarian ectopic on the basis of transabdominal ultrasound, Odejinmi F et al.[6] also diagnosed 92% of ovarian ectopic on ultrasonography. Many authors have described increased echogenicity (an-echogenicity) of ovarian ectopic as a distinguishing feature. However, in our case, the sonographic finding of a yolk sac with a foetal pole in the ovary was evident, a feature observed in only 8% of cases.[6] We experienced a typical haemorrhagic ovarian mass evident on gross anatomy after laparotomy. The haemorrhagic mass can be confused with a ruptured corpus luteum. Haemoperitoneum and ruptured right tubal ectopic with moderate adhesions were also observed. Adhesions are commonly associated with tubal ectopic pregnancies and represent a significant risk factor for ectopic pregnancies (aOR 2.24 95% CI 1.50–3.37, $p<0.001$).[7] We managed our case surgically because of worsening haemodynamic status of the patient within 6 hours of admission. Moreover, the size of the ovarian ectopic and high levels of βHCG supported the decision of surgical intervention.[8,9] Oophorectomy was performed. While Odejinmi F et al.[6] opted for wedge resection of the ovaries. The reason was due to haemoperitoneum and the large gestational size of the embryo (10wks) while the mean gestational age reported by Odejinmi F et al.[6] was 6 weeks.

Conclusion

A twin ectopic pregnancy can be possible in absence of traditional risk factors for ectopic pregnancies. In suspicion of adnexal mass with gestational amenorrhoea, contralateral adnexa should be examined to exclude twin ectopic pregnancy, especially when Q beta HCG levels are normal or high and the uterine cavity is empty. For highly suspicious cases, trans vaginal ultrasound should be considered for high sensitivity. Emergency laparotomy should be considered in patients who are haemodynamically unstable or have simultaneous haemoperitoneum or a large gestational sac.

Consent: Written consent for publishing the case report was obtained from the patient.

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Conflict of Interest: None.

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Author Contribution:
NK: Concept and design.
NF: Drafting.
MK: Correspondence and final approval.