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Case Report

Rare Case of Ruptured Live Tubal Ectopic Twin Pregnancy

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Abstract: This article aims to report a rare case of a primigravida with live twin ectopic pregnancy at 12 weeks gestation, seen at Al Qassimi Women & Children Hospital, Sharjah, which was successfully diagnosed and managed upon arrival with no maternal morbidity. The patient presented in Emergency department with severe abdominal pain, by her dates she was in late first trimester of pregnancy with no prior early pregnancy scan. She was tachycardic with generalized abdominal tenderness with guarding and rigidity on examination. Bedside ultrasound was suspicious of twin ectopic with hemoperitoneum; findings were confirmed urgently with scan in radiology department. In view of patient's condition, urgent laparotomy was done which showed ruptured right tubal ampullary twin pregnancy with hemoperitoneum. Right salpingectomy was done, 2 units of blood were transfused intraoperatively. She has an uneventful postoperative period was discharged in good condition on the third day. his case stresses on the importance of being extra vigilant in a busy Emergency department where low risk late first trimester pregnancies present with acute abdomen with no prior scans need urgent ultrasound to identify this rare diagnosis of twin ectopic and manage effectively and rapidly to avoid major morbidity to the patient.

Keywords: Ectopic, Early Pregnancy, Emergency, Ruptured Ectopic, Hemoperitoneum, Twin Ectopic

1. Introduction

Ectopic pregnancy is extrauterine pregnancy, with over 98% of them being located in the fallopian tube. Twin ectopic pregnancies are rare and are usually known to occur with use of assisted reproductive technology [1] Spontaneous twin ectopic pregnancies are extremely rare with a few cases reported worldwide only. Being rare, these pose as a diagnostic challenge upon presentation.

2. Case Report

Mrs S, 25 years old, Nigerian lady reported to the Emergency department of Al Qassimi Women &Children Hospital, Sharjah on 02.07.2020 with complaints of generalized abdominal pain since the prior day which had increased few hours before arrival to hospital, associated with dizziness. She could not lie on the left side properly due to associated shoulder pain, or move in bed.

Her pregnancy began in UAE during the COVID pandemic, which limited her visits to the hospital. Her last menstrual period was on 10th April 2020. She had only one checkup prior to attending AQWCH emergency. She was continuously bleeding from previous 1 month despite oral Dygesterone, which she had stopped 2 days prior to attending hospital. There was no prior scan/reports of any consultations with the patient.

There was no history of any gynaecological complaints in the past and neither any pregnancy inducing drugs were taken. Upon arrival, she was noted to be in pain with tachycardia (140 beats/minute), BP- 136/92 mmHg, afebrile, and normal respiration.

On examination- abdomen was tense with tenderness, guarding and rigidity noted all over abdomen without any audible bowel sounds, clinically giving an impression of an acute abdomen. Per speculum and per vaginum was refused by the patient as she was in pain.

Bedside scan done in emergency revealed live twins fetuses

on 12 weeks gestational age, not appearing intra-uterine with suspicion of abdominal pregnancy along with significant haemoperitoneum. Urgent confirmation of same was sought by Head of the Department Radiology due to rarity of the findings-particularly live twins in adnexa with clear origin not being elicited.

Figures 1 to 4 are images that helped conclude and confirm it to be a case of live twin ectopic pregnancy of gestation of 12 weeks, placenta being anteriorly located in the sac. The sac was noted to be surrounded by multiple echogenic heterogeneous soft tue components likely representing blood clots/ hematoma and an extensive reaction involving the mesentery.. The pregnancy was most likely thought to be originating from the right adnexa extending posteriorly to fill the pouch of Douglas reaching the left adnexa., approximately 13 cm in diameter. Moderate free pelvi-abdominal peritoneal fluid reaching the sub hepatic region and Morrison's pouch was reported too, being turbid with low level echoes suggestive of its bloody nature. The uterus was noted as anteverted central. measuring 12.3 cm x 5.7cm, with homogenous myometrium with no mass formation. The endometrium was thickened showing double decidual reaction measures 2cm. Her heamoglobin was 9.7 gm % and the bHCG was 100397 IU.

After detailed counselling of the patient, putting forth a rare diagnosis, decision for urgent exploratory laparotomy taken.

During surgery, moderate haemopeitonem with clots approximately 500 ml with blood approximately 800 ml was removed. Left tube was seen thickened and edematous and densely adherent to bowel and Pouch of Douglas. Both ovaries were normal. Uterus and bowel were covered with unhealthy friable tissue.

Right tubal ampullary pregnancy with size approximately 12cm lying deep in POD adherent to surrounding structure, with removed with difficulty with the fimbrial end bleeding from where the foot of one fetus could be seen (figures 5, 6, 7, 8). After adhesiolysis, right salpingectomy done and mass removed along with. Friable tissue from POD removed and hemostasis achieved. The mass was opened and two fetus in two sacs noted with cords attached to one placenta. Abdomen was closed with an intra-abdominal drain after good peritoneal lavage.

Postoperatively she was fine, received 2 units blood transfusion during surgery, recovered well and was discharged on 3 rd day in good condition.

Upon review after 10 days, she had no complaints and her BHCG dropped to 152. Histopathology examination confirmed ruptured tubal ectopic with twin gestation.

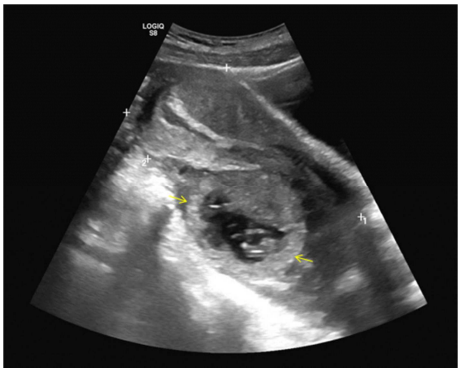
3. Discussion

Twin ectopic pregnancy is a rare occurrence, with an estimated incidence of 1 in 20 000 spontaneous pregnancies [2, 10]. Spontaneous dizygotic unilateral twin tubal pregnancy is an extremely rare occurrence in comparison with bilateral twin tubal pregnancy and unilateral twin tubal pregnancy with no cardiac activity [3, 5] with a high risk for pregnancy-related mortality as it presents with a major diagnostic challenge for obstetricians [4].

A live unilateral twin tubal pregnancy has an incidence of 1 in every 125,000 spontaneous pregnancies [3] the incidence is likely to be underreported because the diagnosis is primarily surgical (<10 out of 106 were diagnosed preoperatively) and/or pathological (consider the well-known phenomenon of the vanishing twin and the deterioration of the material after medical therapy) [10, 13]. A vast majority of patients with ectopic pregnancies present at a gestational age of 6 to 10 weeks, usually with symptoms of vaginal bleeding and/or abdominal pain. They can be complicated with a rupture once the gestational sac grows beyond a diameter of 1.5 to 3.5 cm [6] The above mentioned case, presenting at 12 weeks, towards the end of first trimester, is exceedingly rare, with potential risk of diagnostic pitfall in busy Emergency Department making confirmation very difficult and occasionally needing MRI. Two adnexal heartbeats suggest a live twin ectopic pregnancy. Recognition of the specific US features will help radiologists diagnose these uncommon types of ectopic pregnancy. [9] Delay in care to the patient due to time spent in diagnosing the case, could place patient's life at risk [7] Speedy diagnosis of the case helped avoid major morbidity.

Of 11 cases of unilateral twin tubal pregnancies presenting with cardiac activity reported between 1994 and 2015, 3 cases had no risk factors such as previous ectopic pregnancy, tubal pathology and surgery, previous genital infections, infertility, etc. The reported case also had no previous risk factors. Based on case reports from the literature, monozygotic and monoamniotic are the most frequent (95%) among unilateral twin tubal pregnancies, nonetheless a DNA analysis theorized that many of these might be dizygotic [14].

In De Los Ríos' review [8] of 40 cases of bilateral tubal pregnancies, only one case was successfully treated with systemic methotrexate, which indicates that medical treatment is apparently ineffective in multiple tubal pregnancies. However, management is straightforward if there is accompanying hemoperitoneum where surgical management is indicated. In our case, due to the presentation of the lady with tachycardia, acute abdomen with scan findings suggestive to major hemoperitoneum with clots and both fetus with cardiac activity, the treatment was definitely surgical. Individualized decision is necessary with most experienced gynaecologist being involved in these cases.



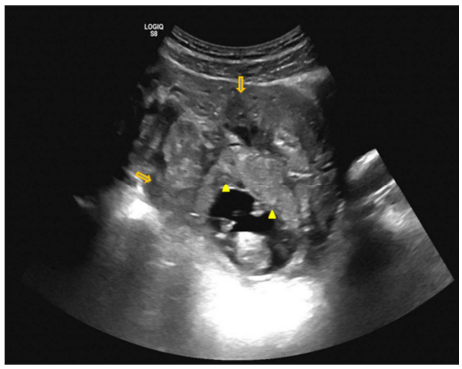


Figure 1. *Sagittal and axial US images showing an empty uterus with double decidua reaction (measured). Extra uterine/right adnexal gestational sac (thin arrows).*

Placenta is anteriorly inserted (arrow heads) surrounded by a large heterogeneous hematoma (bold arrows).

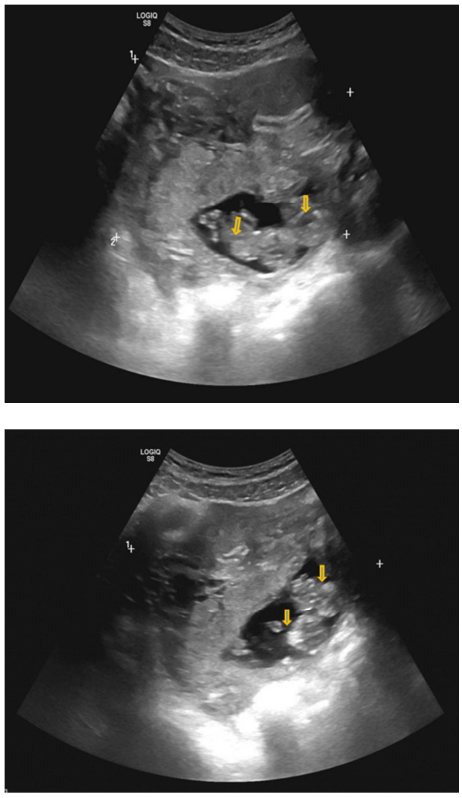
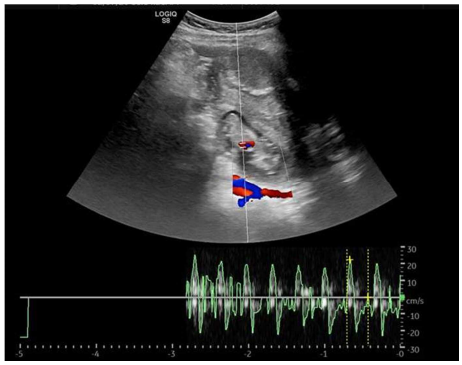


Figure 2. *US images showing twin ectopic pregnancy (bold arrows).*



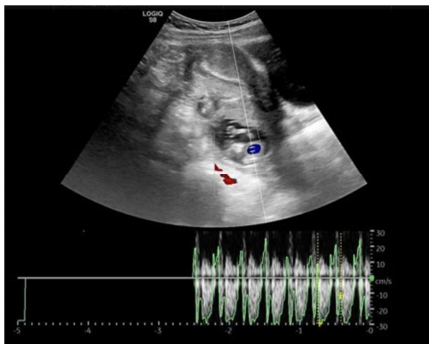


Figure 3. *Pulsed and color Doppler exam showing viable twin ectopic pregnancy with positive heart beats.*

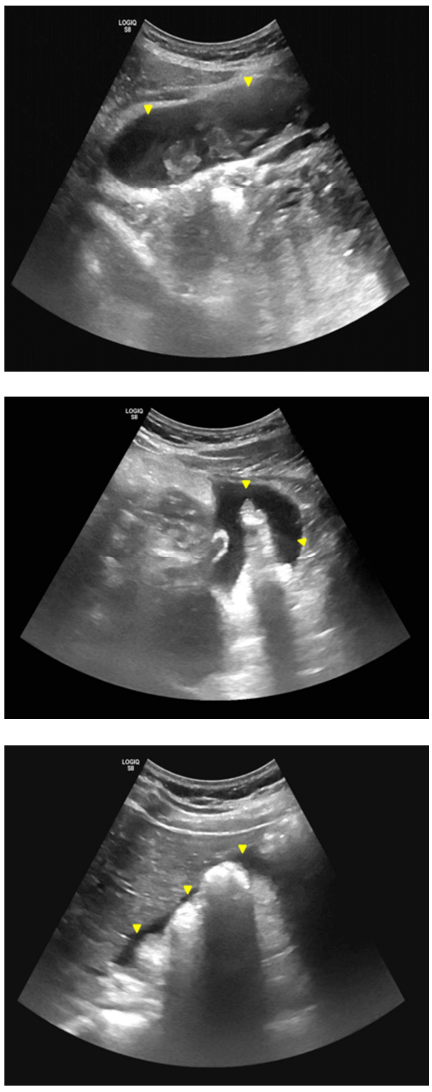


Figure 4. *US images showing a moderate amount of free pelvi-abdominal peritoneal fluid reaching the sub hepatic region (arrow heads). The fluid is turbid with low level echoes, suggestive of its bloody nature.*

US findings for diagnosis of twin ectopic pregnancy:

1) Empty uterus.
2) Complex adnexal lesion with two fetal pole and positive cardiac pulsations.
3) Extra uterine gestational sac with trophoblastic flow/ placental insertion.

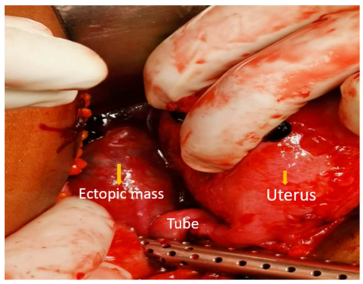


Figure 5. *Ectopic mass next to the uterus.*

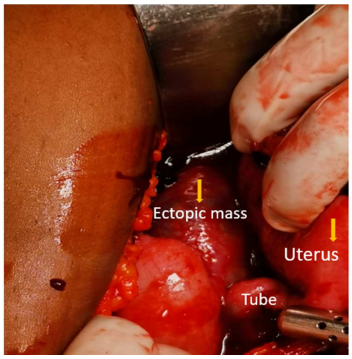


Figure 6. *Uterus behind the gloved fingers with tube near the instrument, distended with ectopic mass lying behind the uterus.*

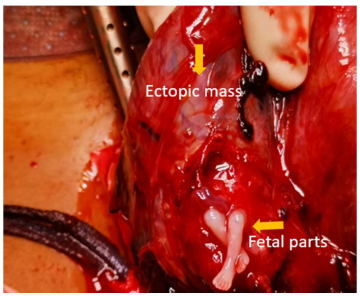


Figure 7. *Mass lying adherent to posterior part of uterus with rupture and fetal parts protruding out of ruptured site.*

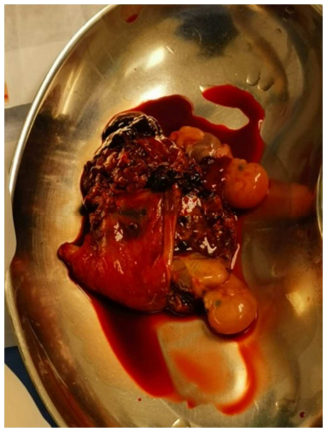


Figure 8. *Twin fetus with one placenta after salpingectomy.*

4. Conclusion

Emergency department presents to the Gynaecologist, rare cases and challenging diagnosis which can affect the condition of the patient within short time of arrival. While early diagnosis and management of ectopic pregnancies can successfully reduce complications [11] like tubal rupture, hypovolemic shock which can happen still in nearly 32% of the cases, with 2.5% increase for every 24 hours delay [12] The eyes don't see what the mind does not know. Thus, awareness of this rare diagnosis even in spontaneous conceptions presenting with acute abdomen helps identify the condition earlier, and manage effectively and rapidly to avoid major morbidity to the patient**.**

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