Bilateral Spontaneous Twin Tubal Ectopic Pregnancy: Case Report

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Abstract

Ectopic pregnancy is a condition where the fertilized oocyte gets implanted outside the uterus. Tubal ectopic pregnancy accounts for 95 % of the ectopic gestation. Remaining 5 % involves the ovaries, cervix, cornua, abdominal and scar site pregnancies. Spontaneous ectopic pregnancy occurs when there is no prior infertility treatment taken. Bilateral spontaneous tubal ectopic pregnancy is a rare form of ectopic gestation. Hereby I would discuss a case of spontaneous bilateral ectopic pregnancy and its outcome. Case: A 35 years old gravid 2 abortion 1 with secondary infertility of 13 yrs came to emergency casualty with complaints of lower abdominal pain, spotting per vagina with giddiness and syncopal attack.

Diagnosis: Based on clinical findings of acute anaemia due to internal blood loss and free fluid in the lower abdomen with fullness on forniceal palpation and bulky uterus. Trans abdominal ultrasonography was confirmatory in diagnosing bilateral adnexal mass with free fluid in pouch of Douglas.

Intervention: Emergency exploratory laparotomy with adequate blood transfusion. Patient recovered uneventfully.

Conclusion: Women in reproductive age group with history of amenorrhoea with irregular spotting and acute abdominal pain with syncopal attack should be managed vigorously keeping in mind ectopic pregnancy so as to have less morbidity and chances of good future pregnancy. Salphingotomy as an alternative method should be practiced.

Keywords: *Ectopic pregnancy, exploratory laparotomy.*

Introduction

Implantation outside the uterus is considered ectopic and accounts for 0.5 to 1.5 percent of all first trimester pregnancy[1]. Ectopic pregnancy is a potentially fatal emergency condition if early diagnosis is missed[2,3]. Incidence of ectopic pregnancy is about 1 in 725 to 1 in 1580 ectopic pregnancies and 1 in 2 lac intrauterine pregnancies[4-8]. Around 200 cases of bilateral tubal ectopic pregnancy have been reported in the literature till date, twin tubal pregnancy with both embryos in same tube or with one in each tube has been reported[9]. However, there has been a significant increase in its incidence over the past three decades[10]. Ovulation stimulation typically occurs as in artificial reproductive methods, pelvic infection and tubal surgery[11,12]. Few cases of preoperative diagnosis of bilateral ectopic pregnancy are reported[4,13].

Anything that interferes with the passage of the ovum through the tube increases the risk of implantation at an ectopic site. Common sites for ectopic pregnancies are the fallopian tube (approximately 95%), of which 70% is ampullary which is the most common site followed by isthmus (12%), fimbrial (11%) and interstitial (2%), [14] with 3% being ovarian in location and the rest (<1%) abdominal or cervical, prior cesarrean scar or in the cornua. Even bilateral tubal ectopic pregnancies have

been reported. Hence, one must always meticulously inspect the other tube also.[15)] Heterotrophic pregnancies account for 1/30,000 cases.[16]. However, 9 of 10,000 pregnancies are due to ART.[17]

Abnormal tubal anatomy underlies many cases of tubal ectopic pregnancy. Surgery prior to tubal pregnancy for fertility restoration or for sterilisation has increased the risk to 20 fold.(18). Previous one ectopic pregnancy the chances increases 2 to 7 fold[18]. Prior sexually transmitted diseases or other tubal infections, which can distort the normal tubal anatomy, can also cause ectopic pregnancy. Single episode of salphingitis can be followed by ectopic in 9% of women. [19]. With successive pelvic inflammatory disease the chances of ectopic increases as 13% after 1 episode, 35% after 2 episodes and 75% after 3 episodes.[20]. Prior recurrent abortions increases the risk to 4 times for ectopic pregnancy[21]. Salphingitis isthmica nodosa also increases the chances. [22.] Congenital fallopian tube anamolies secondary to use of diethylstilbestrol also predisposes to ectopic pregnancy[23]. 10 years cumulative incidence of acute tubal pregnancy after sterilisation procedure is 7.3/1000[24]. Smoking is also associated with increase chances of ectopic also the mechanism is unclear[25]. With any form of contraception the chances of ectopic decreases as the fertility rate is decreased but the contraception failure can increase the risk.

Outcome of ectopic pregnancy includes rupture, abortion or pregnancy failure with resolution. If the fimbrial end is occluded, tube gets distended with blood and forms haematosalphinx. Acute ectopic pregnancies are associated with increased beta HCG levels and rapid growth, leading to timely diagnosis. They have increased risk of rupture.[26].

Classical triad of delayed menstruation, pain and vaginal bleeding or spotting can be present in majority of the cases of ectopic gestation. In rupture, there is severe lower abdominal pain, cervical motin tenderness, posterior fornix may be filled with blood and a tender boggy mass is felt beside uterus.[27,28].

In our case, patient reported to hospital for the first time with acute rupture. Treatment of an ectopic pregnancy depends on its clinical presentation, size and beta hcg levels. Serum beta hcg levels and trans vaginal sonography allows early diagnosis as a result of which the maternal survival rates and conservation of the reproductive capacity are improved. Initial Beta hcg levels above the discriminatory zone of 1000 – 2000 uIU/ml with non visualisation of the G sac strongly supports ectopic gestation[29]. Repeat beta hcg should be performed after 48 hours to see for doubling.

Single value of srum progesterone level > 25 ng/ml excludes ectopic pregnancy with sensitivity of 92% [30]. Transvaginal ultrasonography with appearance of trilaminar endometrium is diagnostic.[31]. Bilateral tubes with ovaries and extrauterine yolk sac, embryo or fetus is diagnostic [32]. Other findings include hyperechoic halo or tubal ring surrounding anechoic sac[33].

Surgical management is done in acute ruptured ectopic pregnancy, in haemodynamically unstable patient or in those who have failed medical treatment or have contraindications to medical treatment. Laproscopy is the preferred treatment as it is associated with lower cost, less operating time, shorter hospital stay and faster recovery. Salphingectomy is the recommended treatment, however, salphingostomy can be considered for women with one tube who are wishing to preserve the fertility.

Methotrexate treatment has also been given by few. Management depends on the initial low beta hcg levels, small size of sac and absent fetal cardiac activity.[34,35]. After an ectopic pregnancy, there are 8 – 15 % chances of recurrent ectopic pregnancy with single dose methotrexate conferring the lowest risk and linear salphingostomy associated with the highest risk. [36] Uterine artery embolisation for management of interstitial twin ectopic pregnancy has also been reported[37].

Our patient presented as a case of acute ruptured ectopic with haemodynamic instability. This case is reported for its rarity and also signifies the need of early ultrasound for diagnosing ectopic pregnancy even in low risk women.

Case:: A 35 yrs old gravida 2 para 0 live 0 abortion 1 with previous spontaneous abortion, 13 yrs back of 2 months with secondary infertility of 13 yrs, no treatment taken for conception married for 15 years arrived in the institute's gynecological emergency with two months of amenorrhea, excruciating pain abdomen 1 day and 5-6 episodes of vomiting 1 days. She had not used contraception. Her preceding menstrual cycles were thirty days regular with 3 days bleeding period. She did not follow up in hospital for registration due to COVID 19 pandemic after she missed her periods and a healthy

UPT at home. As stomach pain became debilitating she was admitted to hospital. Its past medical and family history was not important. Maternal tachycardia (pulse 128 per minute), hypotension (BP = 90/60 mmHg), RR = 20 / min, and pallor were her general condition on admission. Her abdomen was tender with healthy rebound tenderness and protecting, and absent bowel sounds on palpation. Bimanual pelvic examination revealed a large cervical excitation uterus with bilateral adnexal fullness and tenderness that was more marked in the right fornix. A transabdominal ultrasound scan showed an empty uterus with a thickened endometrium and a right adnexal mass that suggested a good tubal pregnancy with a fetal pole and heart activity (figure 1,2) with a moderate amount of free fluid in the pouch of Douglas. Her investigations revealed Hb 8.6 gm%, TLC 14,200, DLC N88 L12, platelets 2.2 Lac, PT, PTTK normal, blood urea 18, creatinine 0.6, Na 138, and K 3.7. After taking high risk consent and explaining the probability of salphingectomy and guarded future pregnancy prognosis, she was resuscitated and taken up in emergency for exploratory laparotomy . Preoperatively 1.5 litres of hemoperitoneum was drained. There was a ruptured right sided ampullary ectopic pregnancy ~5 *3 cm; left tube revealed multiseptated organized hematoma seen in ampullary region with left fimbrial stenosis. Uterus and bilateral ovaries were normal. Pouch of douglas had flimsy adhesions which suggested pelvic inflammatory disease which could be a reason for ectopic pregnancy to occur. A bilateral salpingectomy was hence performed as left sided upruptured mass could not be milked out from the tube due to fimbrial stenosis as we wanted to save one tube due to nulliparity of the patient, after informing patient's husband regarding requirement of in vitro fertilization for future child bearing. Two units of packed red blood cells were transfused to her intraoperatively. She had an unremarkable postoperative rehabilitation and on the fifth day of postoperative discharge. Histopathological examination in both tubes showing chorionic villi and trophoblasts confirmed the diagnosis of bilateral tubal ectopic pregnancy with evidence of rupture on the right.

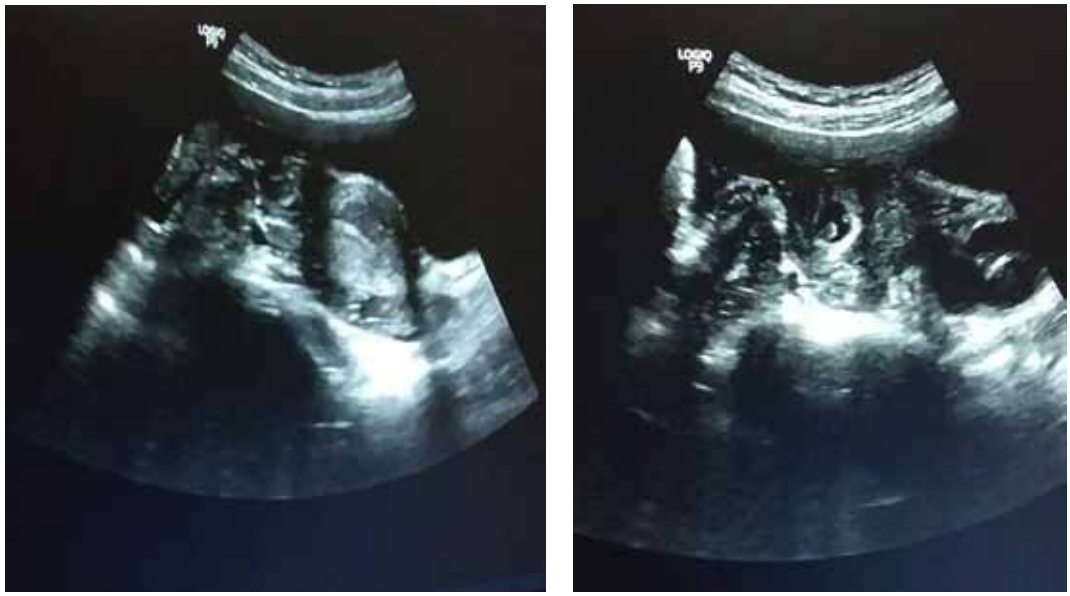

Figure 1&2: A transabdominal ultrasound scan showing an empty uterus with a thickened endometrium and a right adnexal mass

Discussion

Ectopic means "out of place". In an ectopic pregnancy, fertilized egg has implanted outside the uterus. Tubal pregnancy, if not detected and treated earlier, fallopian tube can rupture and cause serious problems and sometimes death. The highest rate of ectopic pregnancy occurs in women aged 35-44 years. One proposed explanation involves myoelectric activity in fallopian tube, which is responsible for tubal motility. Aging may result in progressive loss of myoelectric activity along the fallopian tube.

According to a study by Dr. Samiya Mufti(2008), in a multicentre case control study in India, the incidence of ectopic pregnancy is 3.12 per 1000 pregnancies or in every 250 pregnancies. Peak age of incidence is 26 to 36 years and primi were the most common suffers. Most patients were diagnosed as ruptured tubal pregnancy, which is 60.52 per cent. As in this case study the patient was 28 years old and had been diagnosed with tubal pregnancy ruptured.

While only 40-50 percent of patients with ectopic pregnancy with vaginal bleeding may have abdominal tenderness, 50 percent may have visible adnexal mass with 75 percent. At the initial presentation, nearly 20 percent of patients with ectopic pregnancy are haemodynamically compromised, which is strongly predictive of rupture. Most ectopic pregnancy may be detected before rupture, thanks to advanced diagnostic techniques. Early intervention carries much better prognosis. If management starts before tubal rupture and haemodynamic instability even surgery can be avoided. Approximately 43-55 per cent of ectopic pregnancy has no typical triad of lower abdominal pain, amenorrhoea duration and vaginal bleeding. Any sexually active women with lower abdominal pain, bleeding or spotting with variable-period ammenorrhoea should therefore be carefully screened with ectopic gesstation in mind..

In order to prevent unnecessary care, such as removing the contralateral drain, preoperative and intraoperative assessments are required. Color Doppler transvaginal ultrasonography improves the diagnostic sensitivity for early detection of irregular and normal intrauterine pregnancy and low extra-uterine masses. (38,39,40). Many articles related to pregnancy are available from this region (41-47). Currently, the main management of ectopic pregnancy has become more conservative in order to save the tube instead of salpingectomy.

Conclusion

Adequate clinical experience and skills are essential preconditions for successful individualized tubal pregnancy treatment. Simple dictum of “think ectopic” should not be forgotten, particularly when conceiving infertility. Careful history taking along with proper clinical examination allows us to diagnose ectopic gestation even before it ruptures . Timely diagnosis and management of ectopic can decrease the rate of maternal mortality with reduced morbidity. More concern should be towards the restorative tubal surgeries which will conserve the reproductive capacity of women with better future pregnancy outcome.

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