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Case Report

A rare case of spontaneous simultaneous bilateral tubal ectopic pregnancy

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ABSTRACT

Ectopic pregnancy is still an important cause of maternal mortality. The incidence of ectopic pregnancies is reported to be rising. Spontaneous bilateral tubal ectopic pregnancy in the absence of preceding induction of ovulation is extremely unusual occurrence and is the rarest form of ectopic pregnancy. The estimated incidence is 1 in 725 to 1580 of all ectopic corresponding to one per 200000 live births. The preoperative diagnosis of bilateral ectopic pregnancy remains a challenge. Serum β-hCG, TVS, color Doppler help making diagnosis of ectopic pregnancy but laparoscopy is gold standard diagnostic modality. The diagnosis of bilateral tubal pregnancy is usually made intra-operatively. This underscores the importance of identifying and closely examining both tubes at the time of surgery, even in the presence of significant adhesive disease. Salpingostomy, salpingotomy, salpingectomy, segmental resection, fimbrial expression are the operative modalities described for management of ectopic pregnancy.

Keywords: Bilateral, β-hCG, Ectopic, Laparoscopy, Salpingectomy

INTRODUCTION

Ectopic pregnancy is defined as abnormal pregnancy in which fertilized ovum gets implanted at a site other than normal uterine cavity. Incidence is 2% of all first trimester pregnancies. It is the leading cause of maternal death in the first trimester, accounting for 9-13% of all pregnancy-related deaths. The incidence of ectopic pregnancies is reported to be rising.

Spontaneous bilateral tubal ectopic pregnancy in the absence of preceding induction of ovulation is extremely unusual occurrence and is the rarest form of ectopic pregnancy. The estimated incidence is 1 in 725 to 1580 of all ectopic pregnancies corresponding to one per 2,00,000 live births.[1-3]

CASE REPORT

A 36 years female with history of primary infertility with irregular menses came with 6 weeks of amenorrhea. She had undergone laparoscopic ovarian cystectomy with fulguration of endometriotic spots and adhesiolysis 3 years back. She had history of 2 previous failed IVF cycles which were done 2 years and 1 year back. She had undergone diagnostic hysteroscopy and laparoscopic polycystic ovaries drilling. Since 6 months she was not taking any infertility treatment. Urine pregnancy test was done which showed positive pregnancy test. Transvaginal sonography showed thickened endometrium (endometrial thickness= 10 mm) with intrauterine 2 mm sac like structure and bilateral haemorrhagic cysts of ovaries. So she was advised to follow up with repeat ultrasonography after 2 weeks.

But after 10 days, she presented with acute pain in both flanks. She was haemodynamically stable. On per abdominal examination there was minimal tenderness in left iliac region. On per vaginal examination, bulky uterus corresponding to 6-8 weeks size with bilateral forniceal fullness and minimal tenderness in both fornices was elicited.

No cervical motion tenderness was observed. Serum β-hCG was 2421 (corresponding to 5-6 weeks of gestation. Urgent ultrasonography done which was suggestive of right sided unruptured ectopic pregnancy with left haemorrhagic ovarian cyst (Trilaminar endometrial pattern with 15 mm thickness with no intrauterine gestational sac, Right adnexal mass of 1.78 cm x 1.29 cm showing characteristic 'gestational sac with surrounding tubal ring' with no fetal cardiac activity demonstrable and colour doppler showing characteristic increased vascularity with 'ring of fire pattern', Left ovary was bulky with ? haemorrhagic ovarian cyst) [Figure 1(a) and (b)].

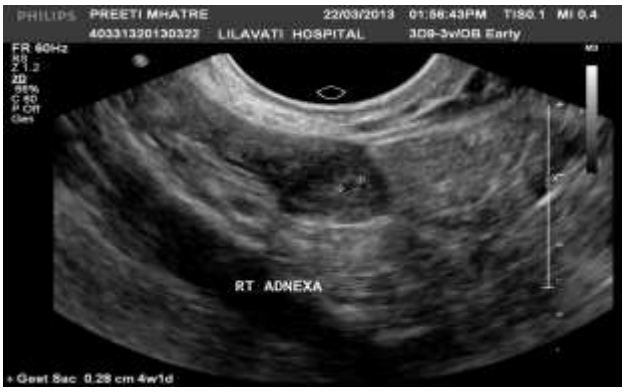

Figure 1(a): Obvious gestational sac corresponding to 4w1d within anechoic sac surrounded by tubal ring, no fetal cardiac activity demonstrable.

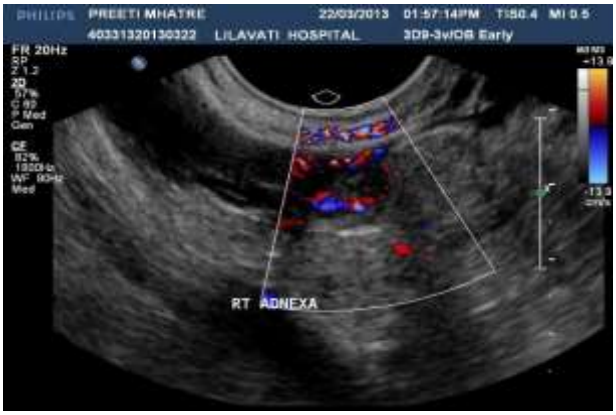

Figure 1(b): Ring of fire pattern.

All routine investigations were done. Adequate blood was cross matched and reserved. Patient and relatives were counselled and explained regarding diagnosis, treatment required and options of treatment available. Patient and relatives were desirous of future fertility. But patient complained of severe pain in left lower abdomen in evening, decision of laparoscopy sos salpingectomy sos laparotomy was taken with valid informed consent of patient and relative.

Laparoscopically careful assessment of whole pelvis including uterus, both fallopian tubes, both ovaries, pouch of douglas and all other pelvic structures done. Astonishingly, bilateral tubal ectopic pregnancy was observed with haemoperitoneum of ~ 30-50 ml [Figure 2 (a), (b) and (c)]. Left sided unruptured ectopic pregnancy in ampulla ~5x3 cms. Left salpingectomy was done. Right sided unruptured ectopic near infundibulum in the process of tubal abortion ~1.5x1 cm. Right fallopian tube milking was done to express out the ectopic sac as ectopic sac was in process of tubal abortion and patient and relatives were desirous of future fertility. No active bleeding was observed from fimbrial end after fimbrial expression.

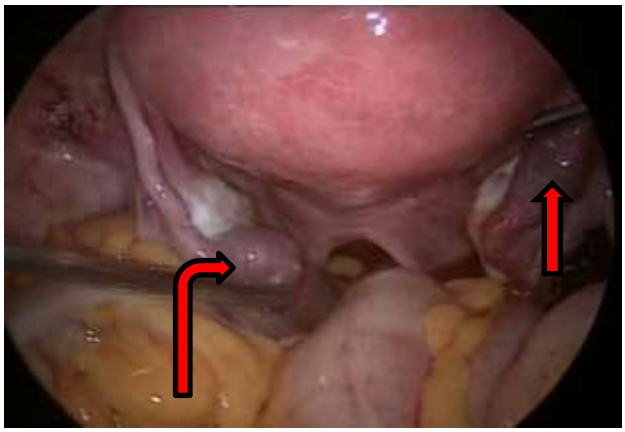

Figure 2(a): Bilateral tubal ectopic pregnancy.

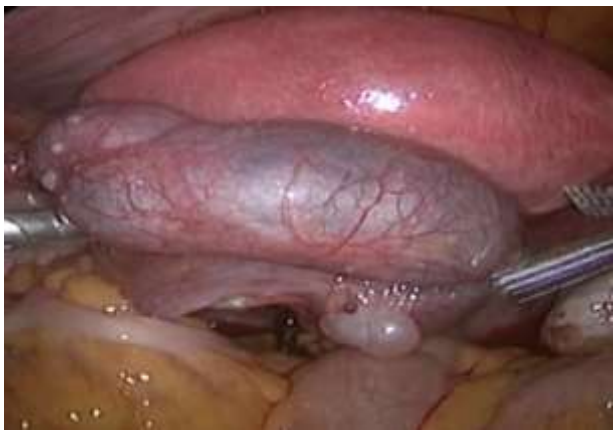

Figure 2(b): Left sided unruptured ectopic pregnancy in ampulla ~ 5 x 3 cms.

Post-operative course in ward was uneventful. Histopathology confirmed the diagnosis of bilateral ectopic pregnancy. No blood transfusion was required. Anti D 50 mcg was given. Patient was discharged on Day

4-post op. Follow up done with serial β-hCG-declined over a period of time and became negative.

Figure 2 (c): Right sided unruptured ectopic near infundibulum in the process of tubal abortion ~ 1.5 x 1 cm.

DISCUSSION

In the past 20 years a 3-fold increase in the incidence of ectopic has been observed due to increased artificial reproductive techniques, tubal surgeries, contraceptive usage and pelvic inflammatory diseases. Heterotopic as well as bilateral tubal ectopic pregnancies are more commonly seen after the introduction of assisted reproductive treatment. The occurrence of spontaneous bilateral ectopic pregnancy is, however, exceedingly rare.[4,5]

Three possible explanations can be given for simultaneous bilateral ectopic pregnancy are simultaneous multiple ovulation, sequential impregnation, transperineal migration of trophoblastic cells from one extra uterine site to other tube with implantation there. Any woman of reproductive age group presenting with abdominal pain and irregular vaginal bleeding or amenorrhea has to undergo thorough evaluation with high index of suspicion for ectopic pregnancy.

The preoperative diagnosis of bilateral ectopic pregnancy remains a challenge. Serum beta hCG estimation is not reliable as the values will be elevated more than that of a single ectopic. Detection with ultrasound scan is difficult and only very few cases have been diagnosed preoperatively by ultrasound.[6]

Comprehensive clinical guidelines for the treatment of ectopic pregnancy have been published by the Royal College of Obstetricians and Gynaecologists.[7] Because of its rarity, synchronous ectopic pregnancy is not covered, but the principles of treatment can still be applied. Laparoscopic surgical treatment is preferred to open procedures, because the patient recovers more quickly and subsequent rates of intrauterine and ectopic pregnancy are similar.[8] The principle management in case of ectopic pregnancy has become a conservative approach that attempts to save the tube, rather than salpingectomy. But salpingostomy or any other conservative surgery increases the risk of recurrent ectopic or persistent ectopic tissue, so anticipate the risk and then decide upon the approach. A multicenter, international, randomized controlled trial enrolled women aged 18 years and above with laparoscopically confirmed tubal pregnancy and a healthy contralateral tube, and showed that salpingotomy does not significantly improve fertility prospects compared with salpingectomy.[9] In our case, we chose to conserve one tube as patient was desirous of future fertility and one side ectopic sac was on verge of tubal abortion.

Most of bilateral ectopic pregnancies are diagnosed intra-operatively and preoperative diagnosis by USG has limitations so, habit of carefully examining both adnexae and whole pelvis is very important.[4,5,10,11] Careful Follow up with serial β-hCG and if necessary USG is very important.

CONCLUSION

Ectopic pregnancy is still an important cause of maternal mortality. The diagnosis of bilateral tubal pregnancy is usually made intra-operatively. This underscores the importance of identifying and closely examining both tubes at the time of surgery, even in the presence of significant adhesive disease.

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