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A rare case of ruptured ectopic pregnancy after bilateral tubal ligation.

Gynaecology

KEYWORDS: Tubal sterilization, Ruptured, Sterilization failure, Ectopic

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ABSTRACT

Tubal sterilization is considered a permanent method of contraception because it is highly effective in preventing pregnancy and therefore failures are rare. Pregnancy is unlikely to occur in woman who have undergone sterilization. However when it occurs, there is substantial risk that it will be an Ectopic pregnancy. We report a case of ruptured tubal Ectopic pregnancy in a patient who had undergone postpartum tubal ligation along with cesarean section.

INTRODUCTION:

Ectopic pregnancy is a significant cause of morbidity and mortality in females with childbearing potential. Ruptured Ectopic pregnancy and hemorrhage are the leading causes of maternal mortality in the first trimester.[1] Tubal sterilization is a highly effective method of contraception but can fail. Available evidence suggest that sterilization fails in .13%-1.3% of sterilization procedures and of these, 15-33% will be ectopic pregnancies.[2] Therefore, the possibility of Ectopic gestation should be kept in mind for differential diagnosis of acute abdominal pain in any woman of reproductive age group, evens if she had history of tubal ligation.

CASE REPORT:

This patient 28 year female G4P3L3 presented to the gynecology emergency with complain of lower abdominal pain for last I week and bleeding per vagina off and on since last 2 days. She had a history of irregular cycles and in the present cycle she was overdue for 4-5 days. She had previous 3 cesarean section s in 2010, 2011 and 2013. A bilateral tubal ligation was done in 2013 with pomeroys method along with cesarean section. There was no history of intercurrent medical illness. On examination, this lady was clinically stable, with P/R of 84 min, BP 110/70mmHg, with slight pallor was present. On per abdominal examination it was soft, and no tenderness was elicited. There was old pffanestien scar from previous surgeries.

A vaginal examination revealed a posterior, soft cervix with closed external os with slight bleeding per vagina was present. Uterus was soft in consistency and tenderness was present. The pouch of Douglas was flat and tender. A urine pregnancy test was done in the emergency which was positive and a transvaginal scan was done which revealed a normal sized uterus with endometrial thickness of 8mm with a complex echogenic mass/ gestational sac like structure was seen in the right adnexa with moderate fluid in POD. Her Hb was 9gm% and other routine investigation were normal.

A diagnosis of rupture ectopic pregnancy was made. Emergency Exploratory laparotomy was performed which showed left sided ruptured ectopic pregnancy(fig 1) with hemoperitoneum of 500ml. Right fallopian tube and ovary,(fig 2) left ovary, and uterus grossly appeared normal. Left sided salpingectomy was done and the tissue was sent for histopathological examination. Post-operative period was uneventfully. Sections of fallopian tube showed dilated fallopian tube containing chorionic villi embedded in hemorrhagic area and product of conception were histologically confirmed.

DISCUSSION:

Usually patients undergoing tubal ligation are considered to have low risk of pregnancy. However, tubal sterilization can fail, and in cases of failure, the resulting pregnancy can very well be ectopic. The incidence of sterilization failure has been estimated to be about .13-13% of which ectopic gestation constitute about one third. [2] Among 10,685 women studied, the risk of ectopic pregnancy within 10 years after sterilization was about 7 per 1000 procedures. [3] A prior ectopic pregnancy, documented tubal pathology, surgery to restore tubal patency, or tubal sterilization carry the highest risk of obstruction and subsequent ectopic pregnancy. Furthermore, the risk of patients following tubal sterilization is not reduced but maintained at the same rate. Ectopic pregnancy is a significant cause of morbidly and mortality in females of child bearing potential. However, the potential of failure to establish a diagnosis at presentation is high. 12% of patients are diagnosed not at initial presentation but at the next presentation.[4]

The sterilization failure risk persists for many years after the procedure and varies by operator technique, method of tubal occlusion and female age.[5] Operator failure may occur when the occluding device is placed on the round ligaments. The probable explanation for these ectopic gestations after tubal ligation is recanalization or formation of tubo peritoneal fistula; sperm may pass through, but the fertilized ovum cannot, so the implantation occurs classically in the distal tubal segment.[6,7] It has also being suggested that in the process of recanalization there is " an abnormal reconstitution of tubal lumen with the formation of blind pouches and slit like spaces" and that this is responsible for the greater likelihood of ectopic implantation.[8]

Ectopic pregnancy is more common if the woman is sterilized before the age of 30 and if 2 or more years have elapsed after sterilization.[9,10] In our case the patient was 27years of age and was sterilized 2 ½ years back.

The incidence of ectopic pregnancy is higher if sterilization is performed during postpartum period. [11] because the edematous ,friable and congested fallopian tube there are increased chances of incomplete occlusion of tubal lumen. Hulka reported the risk of ectopic pregnancy with sterilization failure was 59% with bipolar electro surgery. [12]

A comparison of ectopic gestation in sterilized and non-sterilized woman revealed similar clinical manifestation and surgical outcome. [13] Diagnosis of ectopic pregnancy in post sterilized woman needs a high degree of suspicion. Clinical signs and symptoms should be carefully evaluated. Urine pregnancy test, serum bHCG titer and ultrasonography are helpful in making diagnosis.

Conclusion:

Tubal sterilization is highly effective but can fail. Ectopic gestation after tubal ligation in woman before the age of 30 is not particularly rare. Ectopic pregnancy is an entity that is difficult to diagnose, and which may be fatal if left undiagnosed. Being of child bearing potential should alone be considered as a risk factor and definitely be included in the differential diagnosis. Counselling about possible sterilization failure and contraception alternatives in the event of failure is imperative specially in patients who are below 30years at the time of procedure.

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