ECTOPIC PREGNANCY AFTER BILATERAL TUBAL LIGATION

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Ectopic pregnancy presents a major health problem for women of child bearing age. It results from implantation of conception in fallopian tube outside the endometrial cavity[1]. Without timely diagnosis and treatment, ectopic pregnancy can become a life threatening condition[2]. Prior tubal surgery has been demonstrated to increase the risk of increasing ectopic pregnancy[3]. Conception after previous tubal ligation increases a woman's risk of developing ectopic pregnancy[4].

CASE REPORT-1

A 38-year-old lady para 5 had bilateral tubal ligation procedure done after her last child's birth five years ago. She presented with overdue periods for 10 days and severe lower abdominal pain. There was no urinary or bowel complaint. She was having 28 days regular menstrual cycle with 5 days of menstrual flow. On examination she was conscious and blood pressure was 120/70 mm of Hg. Abdominal examination revealed tenderness localized to suprapubic region. On vaginal examination uterus was found to be bulky with fullness of the right fornix. Serum β HCG levels were raised to 1700 IU/I. Urgent ultrasound pelvis was carried out. The ultra sound revealed free fluid in sub–hepatic space and right paracolic gutters. In the pelvis a complex right adnexal mass measuring 5.7 x 6 cm with suspicion of hematoma was noted. A small pseudo gestational sac was seen within the uterus with no evidence of fetal pole. Findings were suggestive of right ruptured ectopic pregnancy. Laboratory investigation revealed significant decrease in hemoglobin levels of 7 gm. Rest of the investigations were within reference range. Urgent laparotomy was carried out. The findings seen on ultrasound were confirmed with ruptured ectopic pregnancy in right side of the fallopian tube. In addition significant hemoperitoneum was noted. Bilateral salpingectomy was done and the patient had a smooth recovery. Patient was discharged on the 8th post-operative day. Later on histopathology confirmed the diagnosis.

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CASE REPORT-2

A 34-year-lady para 3 + abortion 0 presented with lower abdominal pain for the last 10 days which got aggravated in intensity. She had three previous lower segment caesarean sections, with tubal ligation 3 years back during her last surgery. Her menstrual cycle was 5/23 but her periods were now overdue for 15 days. On examination her pulse was 96 beats per minute, regular and blood pressure was 110/70 mm of Hg. Abdominopelvic examinations revealed marked tenderness and guarding left iliac fossa. The uterus was bulky, firm in consistency and cervical excitation was positive. Urgent USG pelvis was carried out which revealed 8.9x3.4 cm complex mass with internal echoes and free fluid in cul-de-sac. Quantitative serum-HCG levels were done, which were raised. Urgent laparotomy was done which revealed normal appearing post tubal ligatures in medial segment of the fallopian tube. The lateral segment had ruptured ectopic pregnancy. Bilateral salpingectomy was done. Patient recovered successfully and was discharged on the 6th post-operative day. Histopathology of tubal segment revealed chorionic villi with blood clots.

CASE REPORT-3

A 39 year old lady para 3 + abortion 1 presented with history of overdue period for two days followed by spotting per vaginum for the last 10 days along with lower abdominal pain. She had previous three lower segment cesarean sections and subsequent bilateral tubal ligation. Examination revealed a slightly pale patient with

stable vital signs. The abdomen was distended, rigid and tender. Pelvic examination revealed a bulky uterus and tenderness in both fornices. It was difficult to palpate any adnexal mass. Urgent UGS abdomen revealed large area of mixed echogenicity in the right adnexal. Free fluid was was seen in cul-de-sac. No gestational sac was seen in the uterus. Urgent laparotomy was done which revealed normal looking ligated tubes. There was hemoperitoneum with 500 ml of blood in pouch of Douglas. Ruptured gestational sac was seen in the right side adjacent to the right ovary. The right sided oophorectomy and bilateral salpingectomy was done. Hemostasis was secured. The adhesion on the left tube and ovary between uterus and bowel were released by adhesiolysis. Peritoneal toileting was done and abdomen was cleared off the blood. The patient was given two units of blood. The post-operative course was uneventful. She was discharged on 8th post-operative day. Histopathology revealed product of conception within the ovarian stroma.

DISCUSSION

Tubal ligation is a permanent method of contraception. There is very little chance of pregnancy among sterilized women, if it occurs there is increased risk of ectopic pregnancy[5]. The overall pregnancy rate after 10 years was 18.5/1000 procedures in a prospective study at USA[6]. Female sterilization usually involves ligation or blocking of fallopian tubes. It can be done by laparotomy, mini laparotomy or by laparoscopy. Different techniques are used for tubal ligation, which includes bipolar cautery, unipolar cautery and silicone ring clips used in laparoscopic sterilization. Ectopic pregnancy after failure of tubal ligation is in the lateral segment of fallopian tube, it results from recanalization at the site of ligation, which becomes too narrow, to transit the fertilized ovum to uterine cavity[7,8]. Besides recanalization, failure of tubal ligation is also attributed to fistula formation that allows sperm passage[9]. Different studies carried out suggested that pregnancy rate after ligation also vary with procedure techniques[10-12]. Women's age at the time of sterilization also increases the role of failure after sterilization. In one study it was found out that women less than 30 year at the time of sterilization were nearly twice as likely to have a subsequent ectopic pregnancy[13]. In our case, two pregnancies occurred after tubal ligation in the lateral segment of the fallopian tube and one case was of ovarian ectopic. The diagnosis of ovarian ectopic pregnancy is difficult and the diagnosis is confirmed at the time of surgery[14,15]. We had the same experience with ovarian pregnancy. It was diagnosed intraoperatively and confirmed with histopathology report. The incidence of ectopic pregnancy following tubal ligation failure was reported to be as high as 15-30% or even higher[16-18]. The Royal College of Obstetricians and Gynaecologist (RCOG) recommend that the lifetime risk of failure is 1:200, therefore any patient who presents signs and symptoms suggestive of ectopic pregnancy with a history of tubal ligation should be investigated in detail to rule out ectopic pregnancy.

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