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Ruptured ipsilateral ectopic pregnancies: a rare emergency case series

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Summary

Ectopic pregnancy is one of the most important causes of maternal mortality in first trimester pregnancy. Several etiologic factors are suspected for ectopic pregnancy. Fertility-saving surgery in ectopic pregnancy is associated with recurrent ectopic pregnancy. Most common site of ectopic pregnancy is in the fallopian tube, especially in the ampullar region. Ipsilateral tube is rare site for ectopic pregnancy. Previous tubal surgery, especially partial salpingectomy, is an important factor in this disease.

Key words: Ectopic pregnancy; Partial salpingectomy; Surgery.

Introduction

Ectopic pregnancy is defined as the embryo implants outside the uterine cavity. It is a relatively common and potentially complication of pregnancy. The incidence of ectopic pregnancy is two percent in all pregnancies [1]. Most ectopic pregnancies occur in the fallopian tube but implantation can also occur in the cervix, ovaries, and abdomen. Risk factors include: pelvic inflammatory disease (PID), infertility, use of an intrauterine device (IUD), previous exposure to diethylstilbestrol (DES), tubal surgery, smoking, previous ectopic pregnancy, and tubal ligation [2].

Ipsilaterally recurrent ectopic pregnancy after partial and total salpingectomy is a rare condition. Especially tubal surgery and previous ectopic pregnancy are risk factors for type of ectopic pregnancy.

In the present study, the authors report a rare case series of patients with a recurrent ipsilateral ectopic pregnancy after partial salpingectomy.

Materials and Methods

This retrospective study was performed between January 2008 and May 2013. In this period, the author detected 168 ectopic pregnancy in the present clinic. Five patients of all ectopic pregnancies were recurrent ipsilaterally ectopic. The demographic features, risk factors, and treatment modalities were recorded. The demographic features included age, smoking, parity, PID history, previous ectopic pregnancy, and treatment modalities. These results were reported as frequencies and percentages as descriptive statistics.

Results

In this study, recurrent ipsilaterally ectopic pregnancy incidence in the present clinic was 2.97%. Common risk factor for this patients were reported as previous tubal ectopic pregnancy and tubal surgery (partial salpingectomy). The demographic features, risk factors and treatment modalities are summarized in Table 1. The average time of previous ectopic pregnancy was 57.6 months. Two patients were smokers. All patients were evaluated with laparotomy and were treated with laparotomic salpingectomy (Figure 1). Average follow up of patients was 14 months. There were no complications in this period.

Discussion

Ectopic pregnancy is an important cause of maternal mortality and morbidity in first trimester pregnancy. The main risk factors for ectopic pregnancy include smoking, previous

Table 1. — *The fetaures of patients.*

Age	PID History	Smoking	Location of ectopic pregnancy	Previous surgical procedure	Previous surgical procedure time (months)	Treatment
23	No	Yes	Left tubal remnant	Laparoscopy	48	Laparotomy
37	No	No	Left tubal remnant	Laparoscopy	72	Laparotomy
30	No	No	Left tubal remnant	Laparotomy	12	Laparotomy
28	No	yes	Right tubal remnant	Laparotomy	60	Laparotomy
41	No	No	Right tubal remnant	Laparotomy	96	Laparotomy

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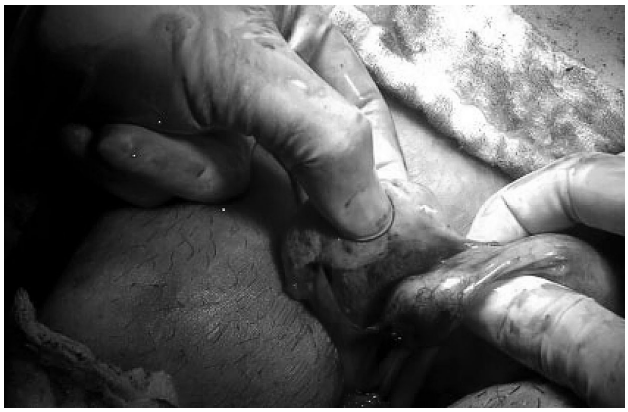

Figure 1. — Ectopic pregnancy in tubal stump.

tubal pregnancy, use of intrauterine device, and previous spontaneous abortion. Also fertility saving surgery in ectopic pregnancy is associated with recurrent ectopic pregnancy (such as recurrent ipsilateral ectopic pregnancy).

The most common site for ectopic pregnancy is in the fallopian tube, especially ampullar region of fallopian tubes. It accounts for % 95 of all ectopic pregnancies. The classic triad of amenorrhoea, abdominal pain and vaginal bleeding is presented in only 50% of patients with ectopic pregnancy [3]. Serum β-hCG level and especially transvaginal ultrasonography can be useful in early diagnosis of ectopic pregnancy. Ultrasonographic findings suggestive of ectopic pregnancy include an empty uterus with a serum β-hCG level greater than 1,500 mIU/ml cystic or solid tubal or adnexal masses, cul-de sac fluid.

Treatment of ectopic pregnancy is medical or surgical. Medical management may be attempted if the patient remains stable and is reliable. If the patient's condition deteriorates, surgical management is indicated. The potential advances of medical treatment are the preservation of tubal patency and function. Hyperosmolar glucose, urea, cytotoxic agents (e.g., methotrexate), prostaglandins, and mifepristone can be used in medical treatment of ectopic pregnancy. On the other hand, the surgical intervention for tubal pregnancy can be radical (salpingectomy) or conservative (usually salpingostomy). The type of surgery is according to hemodynamic status of patient, experience of surgeon, and preservation of future fertility [4].

Recurrent ipsilateral ectopic pregnancy following partial salpingectomy is recognised as a potential complication. If conservative methods are not suitable for a patient with tubal pregnancy, total salpingectomy is the preferred option over partial salpingectomy. Although a salpingectomy does not necessarily eradicate all ipsilateral ectopics, it certainly minimises a tubal recurrence on the same side.

There are multiple theories postulated about the basis of recurrent ipsilateral tubal ectopic pregnancies Firstly, spermatozoa pass through the patent tube into the pouch of Douglas, then travel to fertilize the ovum on the side of the diseased tube. Then the fertilized ovum implants on the stump of previous ectopic site. Second theory, transperitoneal migration is when the fertilized ovum on the side of the normal tube migrates and implants on the tubal stump. A third theory suggests that despite surgical excision, the lumina remain intact or recanalise in the interstitial portion and remnant of the fallopian tube. This permits communication between the endometrial and peritoneal cavities and hence passage of the fertilised ovum or sperm from the uterine cavity to the remnant of fallopian tube [5, 6].

Conclusion

Several etiologic factors are suspected in this disease. However most important factor is tubal surgery for ectopic pregnancy. Every women with a previous ectopic pregnancy would be at high risk for recurrent ectopic pregnancy. Abdominal pain is the most common symptom in ectopic pregnancy. Especially, if her complaint includes pain in the side of previous ectopic pregnancy, amenorrheic period, and vaginal spotting; these signs are important for recurrent ipsilateral ectopic pregnancy. Therefore if she has ectopic pregnancy in previous obstetric history, early and detailed ultrasound examination is mandatory. Therefore, clinical suspicion is important for diagnosis. Recurrent ectopic pregnancy is associated with increased risk of rupture and severe bleeding at an early gestational age of pregnancy. After the diagnosis, treatment protocol must be planned, but surgical treatment remains the safest and most effective option for recurrent ipsilateral ectopic pregnancy.

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