Case Report

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Delayed Recurrent Ectopic Pregnancies Subsequent to Puerperal Sterilization

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Key Words

Ectopic pregnancy
Tubal sterilization

Abstract

A case of recurrent tubal pregnancies occurring at intervals of 7 and 12 years after puerperal sterilization is presented.

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Introduction

Ectopic pregnancy is a potentially hazardous complication following tubal sterilization which, if not recognized and treated promptly, may have catastrophic results [1]. We report an unusual case of recurrent ectopic pregnancies occurring 7 and 12 years after puerperal sterilization. nography revealed an empty uterus with a pool of fluid in the pouch of Douglas. No extrauterine mass was seen.

An emergency laparotomy was performed, and an unruptured right tubal pregnancy with haemoperitoneum was diagnosed. Previous left total salpingectomy was evident. A right total salpingectomy was undertaken after which the patient made an uneventful recovery. Histological examination of the soft tissue mass showed the presence of decidua only. The excised right fallopian tube, measuring $7 \times 3 \times 3$ cm, was dilated and contained blood clot and chorionic villi.

Case Report

A 40-year-old Chinese woman was admitted as an emergency complaining of mild lower abdominal pain for 2 weeks, associated with irregular vaginal bleeding for 3 days after having had amenor-rhoea for 7 weeks. Prior to admission, she had passed a soft tissue mass per vaginum which appeared to be a decidual cast.

In the past, she had two deliveries by Caesarean section. Twelve years ago, she underwent sterilization by bilateral tubal ligation (Pomeroy method) after her second Caesarean section. Seven years later, she had an emergency laparotomy which revealed a left tubal pregnancy and was treated by unilateral salpingectomy.

On examination, she was slightly pale-looking. Pulse rate was 90/min, and blood pressure was 110/70 mm Hg. The abdomen was slightly distended with tenderness and rebound tenderness

over the lower abdomen, which were more marked on the right side. Small amounts of blood was present in the vagina. The uterus was normal in size and the cervical os was closed. Tenderness was, however, elicited in the right vaginal fornix, but no adnexal mass was palpable.

On admission, her haemoglobin was 10.6 g/dl. Urinary pregnancy test (Abbot TestPack hCG-Urine, Abbott Laboratories, North Chicago, Ill., USA) was positive, and abdominal ultrasound

Discussion
Ectopic pregnancy is a potentially life-threatening condition not infrequently encountered following tubal sterilization. It has been estimated that approximately 12–16% of pregnancies occurring subsequent to tubal sterilization are ectopic [1–5]. Other sequelae of tubal sterilization include menstrual disturbances, tubal polyps, epithelial inclusions, endometriosis, endosalpingosis, tubal cyst and emotional conflicts [6–10].

Various methods of sterilization may be used, but there is a trend towards the application of clips or plastic rings which cause minimal damage to the tube, thus permitting a higher rate of successful reanastomoses, should the patient desire reversal of sterilization in the future. These techniques allow a large portion of the tube on either side of the sterilization site to be left intact with preservation of potential tubal function, although fluid circulation ceases in the distal segment [11].

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Tubal gestations are mostly found distal to the sterilization site and are likely to be the result of recanalization of the fallopian tube or the formation of a proximal tuboperitoneal fistula. It has been postulated that formation of the narrowed lumen allows the passage of spermatozoa but not of the fertilized ovum which then becomes implanted in the distal segment of the tube [12]. A lower rate of tuboperitoneal fistula formation seems to occur when mechanical obstructive devices such as clips, rings or bands are used without transection of the tube [11,13].

Although the long-term risk of ectopic pregnancy after sterilization is unknown, the greatest risk of failure, including ectopic pregnancy, occurs during the first 2 years [3] and is considered to be negligible after 3 years [5]. The present case of recurrent ectopic pregnancies occurring 7 and 12 years, respectively, after sterilization demonstrates an unusually long time lapse between the original sterilization and each subsequent tubal pregnancy. Such delayed morbidity emphasizes the fact that knowing that the patient had undergone tubal sterilization many years previously need not preclude the diagnosis of subsequent ectopic pregnancy. Indeed, such a risk persists for the remainder of the woman's reproductive life, although it is much lower than if no contraception has been used [14].

It is necessary to perform bilateral oophorectomy to abolish all possibility of future pregnancy, as ectopic pregnancies have been reported even after total hysterectomy [15, 16]. Nevertheless, to avoid the risk of recurrent tubal pregnancy, bilateral salpingectomy should at least be performed when dealing with ectopic tubal pregnancy after previous sterilization [2]. However, a less radical approach may be adopted by performing unilateral salpingectomy on the affected tube only if the presence of a tuboperitoneal fistula in the contralateral proximal tubal segment has been excluded by intrauterine dye injection at the time of surgery.

Diagnosis of overt cases of ruptured ectopic tubal pregnancy with considerable haemoperitoneum is obvious. But recognition of early cases with less typical features can be difficult. Greater awareness of the possibility of ectopic pregnancy, irrespective of the time lapsed after previous sterilization, may minimize the risk of having such a diagnosis being

overlooked. In doubtful situations and in the absence of clinical deterioration, the combined use of ultrasonography and serial determinations of serum human chorionic gonadotrophin levels may be useful in distinguishing between intra- and extrauterine pregnancy while the patient is under close observation [17].

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