



## Research Letter

## A primary omental pregnancy after unilateral salpingectomy and unilateral tubal ligation

Li-lin Yang <sup>a</sup>, Ying Zhou <sup>b</sup>, Song-ping Luo <sup>a,\*</sup><sup>a</sup> First School of Clinical Medicine, Guangzhou University of Chinese Medicine, Guangzhou, China<sup>b</sup> Department of Obstetrics and Gynecology, First Affiliated Hospital of Guangzhou University of Chinese Medicine, Guangzhou, China

## ARTICLE INFO

## Article history:

Accepted 19 January 2015

Dear Editor,

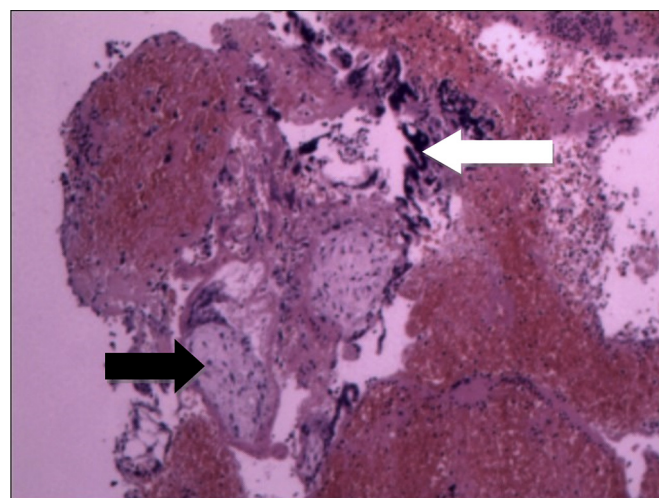
In this research letter we want to emphasize the variety of ectopic pregnancy and bring omental pregnancy to the attention of clinicians.

A 31-year-old gravida 2, para 0 woman presented with acute lower abdominal pain, which was accompanied by vomiting, dizziness, and 3-day delayed menstruation. She was admitted to the Emergency Department of the First Affiliated Hospital of Guangzhou University of Chinese Medicine (Guangzhou, China). In the previous year, she had undergone a right salpingectomy because of right fallopian ectopic gestation, and her left fallopian tube was ligated during the surgery. Abdominal palpation revealed shifting dullness and mild tenderness in the lower abdomen. Transvaginal ultrasound showed no evidence of intra-uterine pregnancy, but detected abundant fluid in the pouch of Douglas. The serum beta-human chorionic gonadotropin ( $\beta$ -HCG) level was 1432 IU/L. We determined a provisional diagnosis of ruptured ectopic pregnancy. After aspirating 2000 mL of blood, the uterus was of normal size with no sign of a uteroperitoneal fistula. The right fallopian tube was absent and the left fallopian tube was separated from the isthmus with the fimbriated extremity blocked. The bilateral ovaries had a normal shape. Further exploration of the abdomen showed a 5 cm  $\times$  4 cm lesion covered by large clots in the lower left omentum. An active bleeding site appeared after the clots were removed. She underwent a partial omentectomy, which was followed by dilatation and curettage. Histopathological assessment indicated chorionic villus embedded in the omentum tissue with surrounding hemorrhage and a syncytiotrophoblast (Figure 1). The tissue curetted from the

uterus was endometrial in the secretory phase with decidua reaction, which confirmed a diagnosis of primary omental pregnancy. The patient recovered quickly and uneventfully after discharge.

Omental pregnancy can be primary or secondary, based on the criteria of Studdiford [1]. The findings of a primary omental pregnancy consist of normal fallopian tubes and ovaries, lack of a uteroperitoneal fistula, and the presence of pregnancy related solely to the peritoneal surface. In this paper, we reported a special case of primary omental pregnancy.

Based on the Studdiford [1] criteria and the patient's history, this particular case may not meet the diagnosis of primary omental pregnancy. However, the pregnancy may have originated from spermatozoa that leaked from the crevasse created by the previous salpingectomy or tubal ligation, and consequently the fertilized ovum became implanted in the omentum.



**Figure 1.** The histopathological slide shows a swollen chorionic villus (black arrow) and syncytiotrophoblast (white arrow) in the lower left omentum (hematoxylin-eosin stain under light microscope at 40 $\times$  magnification).

\* Corresponding author. First School of Clinical Medicine, Guangzhou University of Chinese Medicine, Number 12 Jichang Road, Guangzhou, Guangdong, 510405, China.

E-mail address: [gynspluo@hotmail.com](mailto:gynspluo@hotmail.com) (S.-p. Luo).

Laparoscopy showed no ruptured opening or blood clots at the blocked isthmus site. The blocked fimbriated extremity was unlikely to pull in the ovum. Therefore, the possibility that the fertilized ovum was extruded from the fallopian tube to the omentum was extremely low. In addition, signs of villus formation and dense trophoblast invading the omental tissue supported the diagnosis. Taking these factors together, we considered primary omental pregnancy a more appropriate diagnosis for this patient.

We provide a rare example of an omental pregnancy in a woman with a history of salpingectomy and tubal ligation. Clinicians rarely consider the possibility of pregnancy in a woman of childbearing age with a history of salpingectomy and/or tubal ligation. However, tubal damage is a risk factor for an omental pregnancy [2]. Rare implantation sites such as the omentum, ovaries, and pouch of Douglas should be explored carefully if an ectopic pregnancy is diagnosed [3].

In general, laparoscopy is an effective and practical approach to examine the implantation site of the embryo, and it provides a

complete diagnosis [4,5]. Surgical intervention should be performed as early as possible.

### Conflicts of interest

The authors have no conflicts of interest relevant to this article.

### References

- [1] Studdiford W. Primary peritoneal pregnancy. *Am J Obstet Gynecol* 1942;44: 487–91.
- [2] Gundabattula SR, Pochiraju M. Primary abdominal pregnancy in the uterosacral ligament with haemoperitoneum: a near miss. *J Clin Diagn Res* 2014;8:D8–9.
- [3] Hornemann A, Holl-Ulrich K, Finas D, Altgassen C, Diedrich K, Hornung D. Laparoscopic management of early primary omental pregnancy. *Fertil Steril* 2008;89:991–9.
- [4] Chang CK, Leu FJ, Teng SW. Primary omental pregnancy treated by laparoscopic surgery. *Int J Gynaecol Obstet* 2003;3:325–6.
- [5] Seol HJ, Kim T, Lee SK. Successful laparoscopic management of primary omental pregnancy. *Arch Gynecol Obstet* 2010;281:163–5.