Singapore Med J 1998; Vol 39(8):368-369

Case Report of Ruptured Endometriotic Cyst in Pregnancy Treated by Laparoscopic Ovarian Cystectomy

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This case report was presented at the 5th World Congress on Endometriosis (October 1996, Yokohama)

ABSTRACT

Pregnancy is thought to have an ameliorating effect on endometriosis, inducing a state of quiescence. We report a case of ruptured endometriotic cyst in pregnancy successfully treated by laparoscopic ovarian cystectomy. Our patient subsequently progressed uneventfully to deliver a healthy baby girl at term. Laparoscopic ovarian cystectomy in pregnancy, even with ruptured cysts, appeared to be safe in trained hands with similar benefits of reduced post-operative morbidity.

Keywords: pregnancy, endometriotic cyst, laparoscopic cystectomy

INTRODUCTION

A 25-year-old newly married Chinese woman presented in January 1996 at 6 weeks amenorrhoea with sudden acute onset of lower abdominal pain. Clinical examination revealed generalised abdominal tenderness with rebound and guarding. Free fluid was noted in the abdomen. Pelvic examination elicited cervical tenderness. Urine pregnancy test was positive.

She was initially diagnosed to have an ectopic pregnancy. As her vital parameters were stable, an emergency laparoscopic assessment was arranged. Extensive peritoneal soilage by endometriotic material was noted. Bilateral endometriotic cysts measuring 4 cm in diameters on the left and 5 cm on the right were found. The left cyst was noted to have ruptured and was leaking endometriotic material into the pelvis. Both cysts were densely adherent to the ovarian fossa and the back of the uterus. There was no evidence of an ectopic pregnancy.

The cysts were decompressed and were mobilised from the ovarian fossae. Laparoscopic ovarian cystectomy for both cysts was performed by peeling the cyst wall off the ovary. There was minimal blood loss and small bleeders on the ovaries were arrested with bipolar electrodiathermy.

Extensive pelvic irrigation and toilet was performed taking care to clean the paracolic gutters and the sub-diaphragmatic space of the debris from the initial rupture. The patient was later placed in a reverse Trendenlenberg position to drain the peritoneal fluid into the pelvis. The fluid was aspirated and the paracolic gutters and sub-diaphragmatic space were inspected to ensure that satisfactory clearance was achieved. Uterine manipulation was kept to a minimum; particularly once it became evident that the pregnancy was probably intra-uterine.

The patient recovered well and was discharged on the third post-operative day. She was placed on supplementary progesterone. There was no vaginal bleeding throughout the first trimester. Histology confirmed bilateral endometriotic cysts.

The patient later had an ultrasound scan which demonstrated a viable intra-uterine pregnancy with the crown rump length compatible with her period of amenorrhoea. She progressed uneventfully and went on to deliver a healthy baby girl at 39 weeks amenorrhoea.

DISCUSSION

This patient had Stage IV endometriosis by the American Fertility Society (AFS) scoring system[1]. It is interesting to note the ease with which she conceived despite the presence of severe bilateral adnexal disease. While no conclusion may be drawn from isolated cases, it served to highlight the need for a better prognostic indicator with respect to fertility and endometriosis. Ishimaru et al[2] reported little difference in the fertility outcome when comparing a group of 117 patients with and without endometriotic cysts after medical therapy.

The commonly held principle is that endometriosis should be ameliorated by pregnancy. Indeed, experimental evidence in animals similarly suggests that pregnancy significantly reduced the size of surgically induced endometriotic lesions in the mouse model[3]. However, this beneficial effect does not always hold true. Vercellini et al[4] reported a case of ruptured endometriotic cyst in a patient at 35 weeks amenorrhoea presenting with acute abdomen. Two other case reports were found in which rupture of endometriotic cysts were noted in pregnancy[5,6]. McArthur and Ulfelder[7] observed that the clinical effects of pregnancy on endometriosis was variable during the course of pregnancy in a group of 23 women. The interactions between endometriosis and pregnancy remains very much of a mystery and controversy.

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Laparoscopic treatment of ovarian cysts has been well documented but experience of this technique with complicated cysts in the presence of an intrauterine pregnancy is limited. Of concern are possible accidental sharp injury to a highly vascular gravid uterus, the effect of carbon dioxide pneumoperitoneum on the pregnancy and the risk of miscarriage. However, in trained hands, it appears to be a safe approach[8] with similar benefits of reduced post-operative morbidity provided uterine manipulation is kept to a minimum and the gestation is not so far advanced as to prejudice the introduction of the primary trocar.

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