INTRODUCTION

Endometriosis is the presence of ectopic endometrial tissue in an extra-uterine site, usually within the pelvis but very rarely at distant sites. Endometriomas, also known as chocolate cysts, are the retention cysts that develop as a consequence of ovarian endometriosis.

Although endometriosis can reduce fecundability, it does not usually prevent conception. However, if pregnancy occurs, regression or complete resolution of endometriosis is common.

A number of classification systems have been developed for classification of endometriosis. The most widely used is that of the American Society for Reproductive Medicine. It classifies endometriosis on the basis of presence or absence of adhesions and depth of lesions in the ovaries and peritoneal areas. By giving different scores, minimal (1-5 score), mild (6-15 score), moderate (16-40 score) and severe (>40 score) disease states are described.

Pregnancy rate with expectant management in mild, moderate and severe disease is 50, 35 and 5 per cent respectively.  

The case report presented below is unusual, despite the occurrence of pregnancy, the size of endometrioma did not decrease. The site of endometriosis was itself unusual.

CASE REPORT

A 25 years old lady with fourth pregnancy, two alive issues and one abortion, presented in the emergency department with gestational amenorrhea of 34 weeks and lower abdominal pain. Her general physical examination showed marked pallor. On abdominal examination, the abdominal contour was irregular. The symphysiofundal height measurement was consistent with 34 weeks of pregnancy. It was a longitudinal lie with cephalic presentation and normal fetal heart rate. She had palpable uterine contractions. There was another firm mass 15 x 25 centimeters with smooth surface felt separate from the uterus, occupying the left half of abdomen and reaching upto the left costal margin. She was in advanced labour. Ultrasonography showed a large multilocular cystic mass 20 x 25 centimeters, to the left of the uterus, extending from the left iliac region to the left hypochondrium. Both ovaries were normal, however, left kidney was not visualized. She delivered a preterm alive male baby weighing 2 kg. In the postnatal period, the cystic mass could be clearly appreciated separate from the uterus. The patient continued to have dull pain and low grade fever. Laparotomy was planned for removal of the cyst. In the pre-operative investigations, intravenous urogram showed a normal right kidney whereas left kidney was absent. The CA 125 level was 30 IU/ml.

Per-operatively, the large cyst occupying the left paracolic gutter was gently separated from the surrounding tissues by blunt dissection after incising the peritoneal layer over it and removed by clamping the vascular pedicle at the medical aspect of the cyst at the level of 2nd lumbar vertebra (Figure 1).

Differential diagnoses at the time of surgery were mesenteric cyst, hydronephrotic kidney or a retroperitoneal tumour. Both tubes and ovaries were healthy. Uterus was in the involuting stage. Pelvic and abdominal lymph nodes were not enlarged. Omentum was normal in appearance.

The patient made an uneventful recovery after surgery. Histopathology report of the specimen described a fibrocollagenous cyst lined by endometrial epithelium, endometrial glands and stroma along with areas of haemorrhage, haemosiderin and macrophages (Figure 2). Histopathology was reviewed by two senior pathologists separately.
Although the architectural details of the kidney were not outlined, the location of the cyst was exactly in the renal area.

**DISCUSSION**

Endometriosis is present in one percent of women undergoing major surgery for all gynaecological indications, in 21 to 28 percent of women undergoing laparoscopy for infertility, in 12 to 32 percent of women of reproductive age undergoing laparoscopy for pelvic pain and in 50 percent of teenagers undergoing laparoscopy for evaluation of dysmenorrhea/chronic pelvic pain.³

Common sites of endometriosis are ovaries, cul-de-sac, posterior aspect of broad ligaments, uterosacral ligaments, uterus, fallopian tubes, sigmoid colon and appendix. Less common sites are vagina, cervix, rectovaginal septum, caecum, ileum inguinal canal, abdominal and perineal areas, uterus, urinary bladder, whereas exceptional sites are breast, pancreas, vertebrae, liver, gallbladder, kidneys and diaphragm.⁴ Other unusual sites like thorax and umbilical hernial sac have also been reported in literature.⁵ Overall incidence of extra-pelvic endometriosis represents 12 percent of reported cases and the frequency of occurrence decreases with distance from pelvis.⁶

The natural course of the disease is progressive in most untreated patients although spontaneous regression can occur in some cases. Any post-menarchial woman is at risk because it has been identified in post-menopausal women, in women with primary amenorrhea and in 69 per cent of teenagers who undergo laparoscopy for chronic pain.⁷

The effect of pregnancy on clinical course of endometriosis is uncertain. Although, Sampson proposed that pregnancy induces involution of implants,⁸ other authors recently described a variable response of endometriosis to pregnancy. McArthur and Ulfelder analyzed that clinical effect of pregnancy on endometriosis was extremely variable. More patients in their series experienced disease persistence than permanent regression.⁹

This case report is about the unusual occurrence of endometriosis in the renal area suggesting its possible origin from the left kidney. The destruction of the renal architecture seems to have turned it into an endometrioma. Absence of the left kidney on intravenous urogram also suggests its possible renal origin. Furthermore, it is unusual for an endometriotic cyst to grow to such a large size during pregnancy.

To our knowledge this is the first case of endometriotic cyst with pregnancy arising from the peritoneum of the renal area. The case was successfully treated by single approach i.e surgery. Combination of therapeutic approaches i.e. medicine and surgery were not used, yet the patient was disease-free even after three years of follow-up.

**REFERENCES**