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Case Report

Elevated CA 125 and CA199 in a case of ovarian cyst in 24 years old girl

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Abstract

Endometriosis is a common gynecologic diagnosis with prevalence in the general population of around 10%. Spontaneous rupture of an endometriotic cyst is not rare. Here we presented a case with ruptured endometrioma and borderline mucoserous cystadenoma in 24 years old patient.

Keyword: CA 125 test; CA199; Ovarian cyst

Introduction

Endometriosis is a common gynecologic diagnosis with prevalence in the general population of around 10% [1].The patients with endometriosis suffer from a variety of symptoms, such as pelvic pain, dysmenorrhea, dyspareunia, and infertility [2, 3]. When the ectopic endometrial tissue implants inside the ovary, it forms ovarian endometrioma [4]. Spontaneous rupture of an endometriotic cyst is not rare. A few cases have been reported [5, 6].Here we report a case with ruptured endometrioma and borderline mucoserous cystadenoma.

Case Presentation

A 24-year-old nulliparous woman with no reported prior sexual encounter presented to our department complaining of abdominal distention. Her menstrual cycle length was 30 days, menstruation volume was normal. She experienced slight menstrual pain. Her family history was uneventful. At the time of admission, the patient's blood pressure was 100/60 mmHg, her pulse was 86bpm, her temperature was 36.5∘C, and her general condition was good. Her abdomen was soft. There was no lower abdominal tenderness on palpation, rebound tenderness and abdominal guarding. During a pelvic examination, revealed a large intra-pelvic mass,It was about 9cm. Blood test results were normal: hemoglobin level, 12.9g/dL; red blood cell volume, 38.7%; leukocyte count, 6.380; and platelet count, 235,000. Results of urinalysis and blood chemistry analysis were within normal ranges. Serum concentrations of the tumour markers CA-125 and CA19-9 were 2300U/mL and 1000 U/mL, respectively. Serum concentrations of the HCG was within normal ranges.Abdominopelvic computed tomography (CT) scan and B-ultrasound demonstrated a 15cm dense pelvic mass with a moderate volume of free fuid and no evidence of appendicitis.The gastrointestinal endoscopy demonstrated no abnormality.At laparotomy with a low midline incision on day 4 after adiminssion, The bilateral ruptured ovarian endometriomas with features suggestive of leakage unilaterally were revealed. Widespread endometriotic deposits were found at omentum, likely secondary to leaking endometrioma. With more extensive adhesions between the peritoneum, omentum and the pelvic mass. A whitish cyst approximately 15cm was observed in the right ovary and a cyst approximately 8cm was observed in the left ovary.Bilateral ovarian cystecomy was performed because of preservation of fertility. Biopsy specimens were examined as frozen sections, leading to the diagnosis of endometrioma. Afer surgery, the patient was hospitalized without specific symptoms.The final histopathological examination confrmed the diagnosis of bilateral endometrioma and borderline mucoserous cystadenoma in the right ovary.After communication with the patient.She had second surgery at day7 post-operation. The right salpingoopherectomy, appendectomy, omentectomy was performed. Histopathological examination confrmed the diagnosis of inflammation in the ovary and omemtum. The patient was discharged without specifc symptoms.

Discussion

The rupture of an ovarian endometriotic cyst occasionally presents as an acute abdominal pain. This frequently induces elevations in body temperature, WBC count and serum CRP level [7, 8].The patient had acute inflammatory reactions. The inflammatory responses are considered to be induced by the content of an ovarian endometriotic cyst.Just like our patient 3 day before admission to our department. The spontaneous rupture of an endometriotic cyst is very rare. The most of which were associated with early pregnancy [5]. The etiology is not clear. It is possibly the increasing size of the ovarian tumor and the rising pressure and tension inside the cyst.In the differentiated diagnosis. The genecologic and nongynecologic causes, such as a ectopic pregnancy ,the pelvic inflammation disease,the tortion of ovarian cyst,the ruptured appendicitis, diverticulitis, bowel obstruction, or hollow organ perforation, also need to be excluded(9). The diagnosis of this disease is still not well established.

CA19-9 is primarily used for diagnosis, follow-up, and prognosis of pancreatic carcinoma. Its normal value is less than 35 U/mL. Its level is also elevated in malignancies of biliary tract, colon, esophagus, and liver. The elevated levels >1000 U/mL is in certain benign conditions like pancreatitis, biliary disease, and cirrhosis. The markedly high levels of CA19-9 in case with ruptured ovarian cyst (mucinous cystadenoma) associated with ascites.In other gynecologic diseases [10, 11]. CA 19-9 elevate in patient with teratoma [12, 13].It may be a predictor of the

ovarian torsion.In our patient, the borderline mucoserous cystadenoma in the right ovary lead to the elevated level of CA19-9.

There are multiple theories behind elevated serum CA 125 levels in endometriosis. The fuid within an endometriotic cyst is thought to be rich in CA 125. Following leakage of endometriotic fuid, from an endometrioma,this fuid will subsequently cover peritoneal surfaces which may be absorbed into the peripheral circulation and cause peritoneal infammation, resulting in an elevated CA 125 level[14,15].

In summary,this report emphasizes that there are benign gynecological conditions might show clinical, ultrasonographicand biochemical signs suggestive of malignancy. They should be considered as the benign diseases in the differential diagnosis when the younger patients presented elevated serum CA 125 and CA199.

Conflict of Interests

No potential conflict of interests was disclosed regarding the publication of this paper by all the authors.

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