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Case Report

Small bowel necrosis secondary to three times torsion of an ovarian dermoid cyst in a 55-year-old woman: a case report

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Abstract

Dermoid cysts are the most common type of ovarian tumors of all primary ovarian tumors. We present a 55-year-old postmenopausal woman, who admitted to the emergency clinic due to abdominopelvic pain. Abdominopelvic computed tomography scan showed a lesion measured 15X11 cm and no other pathology observed in any of the other abdominal organs. She underwent exploratory laparatomy and a cystic mass complicated with a three times torsion of left ovary and fallopian tube was observed. Left salphingoopherectomy was performed. While explorating the abdomen, a solid cystic mass palpated which was a segment of the ileum leading to necrosis and thought to be caused by the ovarian torsion pushing or twisting the ileum mesentery. After applying warm compress and revising the mesentery of the ileum, the blood flow returned and colour changed to pink. So, we decided not to perform ileal resection. The patient complained severe abdominal pain two days after the operation. She underwent second laparotomy. A necrosed segment of the ileum was seen and 40 cm ileal segmental resection was performed. Consequently, it should be kept in mind that intestinal pathologies could be concurrently seen during the diagnostic work up of gynecologic disorders presenting with acute abdominopelvic pain. However, we strongly recommend to explore the whole abdomen during the operation regardless of the index diagnosis.

Key words:

Ovarian torsion, small bowel necrosis, concurrently, ovarian dermoid cyst.

Introduction

Germ cell tumors constitute 15-20% of ovarian tumors and the majority of them are mature cystic teratomas (dermoid cyst). The mature variety is called dermoid cysts, which is the most frequent benign germ cell tumour of the ovary in the reproductive age group. They are the most common ovarian neoplasm found in adolescence. Dermoids often cause no symptoms and rare noted as ovarian enlargement on a routine pelvic exam. However, they may twist on themselves and cause severe pain and occasionally they rupture producing peritonitis or irritation of the abdominal and pelvic cavity [1].

Intestinal pathologies due to dermoids are seen rarely. In rare cases it could become adherent to the intestine and cause intestinal obstruction. Ovarian torsion complicated by bowel obstruction or perforation are more seen in neonatal groups than in adults [2]. We present a case of small bowel necrosis caused by the ovarian dermoid cyst torsion pushing or twisting the ileum mesentary in a 55-year-old postmenopausal women.

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Case presentation

A 55-year-old postmenopausal woman, gravidity 3 abortus 3 admitted to the emergency clinic of Ataturk Training and Research Hospital due to intractable lower abdominal pain, nausea and vomiting which had began two days ago. Her abdominal examination revealed lower abdominal tenderness and a mass approximately 10x20 cm in dimension and soft in consistency.

Laboratory findings were normal except of leukocytosis (white blood count: 24,09x10^3/ mm^3). An abdominopelvic computed tomography scan showed a lesion with cystic and fatty components in the left adnexia measuring 15x11 cm and no other pathology was detected in any of the other abdominal organs. The patient's condition was unstable with worsening and healing attacks of pain. The patient was bending forward inorder to find some relief during the pain attacks.

She underwent exploratory laparatomy due to the signs of worsening peritoneal irritation ten hours after her admittance to the hospital. Exploratory laparotomy revealed a large cystic mass that measured 15x20 cm diameter in the left lower quadrant. The mass complicated with three times torsion of left ovary and fallopian tube (Figure 1). Left salpingoophorectomy was performed. Frozen section anaysis revealed benign ovarian tumor and coagulation necrosis. Before closing the abdominal cavity, the exploration of

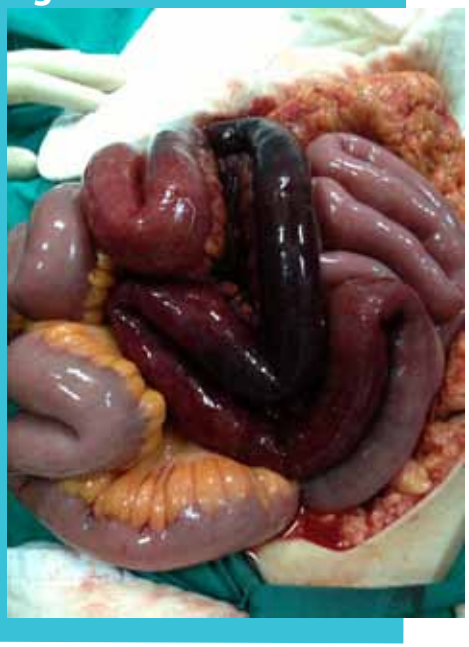
abdomen was carried out. Instantaneously, a cystic, solid mass was palpated just above the umbilicus.

Figure 1.

Adnexial mass complicated with ovarian torsion

Close examination of the lesion revealed a purple, discolored segment of the ileum. This was thought to be caused by pushing or twisting the mesentery of the small bowel by the adnexial mass. (Figure 2).

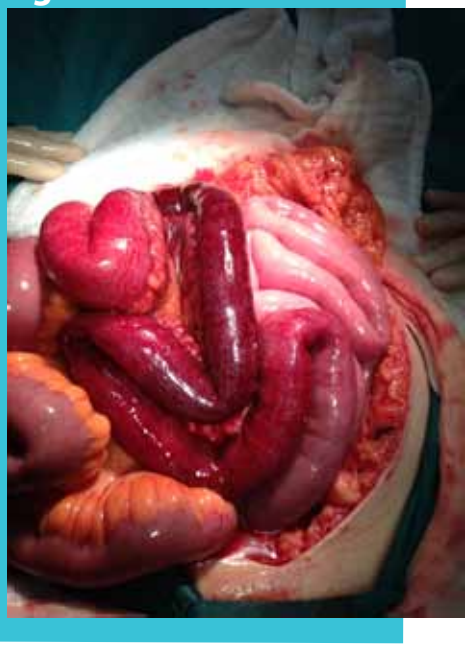
Figure 2.



Ischemic necrosis of ileal segments as a result of mesenteric torsion.

A general surgeon was called. The surgeon also indorsed us and detorsioned the mesenteric segment, applied warm compress over the ileal segment and waited for a while hoping to set up the blood circulation. As the color of ileal segment began to turn to pink, the surgeon decided not to perform a segmental resection of the small bowell (Figure 3). The abdominal cavity was closed in accordance with the anatomy. The patient was transferred to the gynecology ward. Low-molecular-weight heparin 0.3 ml twice a day was added to her postoperative treatment with antibiotic and anti-inflammatory drugs.

Figure 3.



Return of blood flow to ischemic small bowel segment.

Her abdominal pain gradually subsided for two days but later on, the patient complained of severe abdominal pain like as before the operation. A general surgeon was called and after the consultation, the patient was transferred to the general surgery ward. The patient underwent a second laparotomy and a 40 cm long ileal segment had been resected. She was discharged 1 week after the second operation. Nevertheless, she was again hospitalised 1 week after her discharge due to intractable diarrhea. Patient was diagnosed with short bowel syndrome. The definitive pathology reported that the adnexial mass was dermoid cyst and transmural necrosis was demonstrated when the resected segment assessed by histologically.

Discussion

Dermoid cysts are the most common type of ovarian tumors accounting for 27-44% of all primary ovarian tumors and 35-58% of the benign forms [3]. Cysts with a diameter of greater than 10 cm may cause abdominal pain, vaginal bleeding, and swelling and also they have malignancy risk [4]. The current literature review reveals that bowel obstruction caused ovarian cyst is a rare com-

plication with 19 reported cases during neonatal period. [2]. Acute mechanical bowel obstruction is frequently seen among surgical emergencies and there are plenty of reasons such as adhesions, incarcerated hernias, large bowel cancers, polypoid tumor, bezoars, foreign body, trauma, parasites, volvulus, etc. [5]. As occured in our case, acute intestinal obstruction is a very rare complication of ovarian dermoid cysts, it can essentially occur if a loop of a small bowel or small bowel mesentery becomes adherent to the cyst and twists or kinks with the torsion of the ovarian cyst that lead to necrosis [6].

Consequently, it should be kept in mind that intestinal pathologies could be concurrently seen during the diagnostic work up of gynecologic disorders presenting with acute abdominopelvic pain. However, we strongly recommend to explore the whole abdomen during the operation regardless of the index diagnosis.

Conflict of interest statement

The authors declare no conflict of interest.

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