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OLGU SUNUMU/CASE REPORT

Unusual cause of acute abdominal pain in a postmenopausal woman: adnexal torsion

Postmenapozal bir kadında akut abdominal ağrının nadir bir sebebi: adneksiyal torsiyon

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Abstract

Adnexal torsion is an infrequent but significant cause of acute lower abdominal pain in women. While adnexal torsion is generally considered in premenopausal women presenting with acute abdominal pain and a pelvic mass, it is a rare cause of acute abdominal pain during postmenopausal period. The diagnosis of adnexal torsion is often challenging due to nonspesific clinical, laboratory and physical examination findings. Causes of adnexal torsion is also different in premenopausal and postmenopausal women. While a simple functional cyst is often the cause of torsion in premenopausal women, it is more rarely the cause in postmenopausal women. Adnexal torsion is a surgical emergency. The surgery of adnexal torsion is performed either via conventional exploratory laparotomy or laparoscopic surgery. Adnexal torsion in postmenopausal women should be considered not only in the setting of sudden onset pain, but also in long-term abdominal discomfort. In this article, we presented a case with adnexal torsion that rarely cause acute abdominal pain in postmenopausal women.

Key words: Acute abdominal pain, adnexal torsion, laparoscopy, postmenapouse

Öz

Adneksiyal torsiyon, kadınlarda akut karın ağrısının nadir görülen ancak önemli bir sebebidir. Adneksiyal torsiyon, akut karın ağrısı ve adneksiyal kitleyle başvuran premenopozal kadınlarda akla gelirken, postmenopozal dönemde nadiren düşünülür. Adneksiyal torsiyonun tanısı klinik, laboratuvar ve fizik muayene bulgularının spesifik olmaması nedeniyle sıklıkla zor konur. Premenopozal ve postmenopozal kadınlarda adneksiyal torsiyonun nedenleri de farklıdır. Basit bir fonksiyonel kist premenopozal kadınlarda torsiyonun sıklıkla nedeni iken, postmenopozal kadınlarda bu daha nadirdir. Adneksiyal torsiyon acil bir cerrahi durumdur ve tedavisi konvansiyonel ekploratif laparotomi ya da laparoskopik cerrahi ile yapılır. Adneksiyal torsiyon, postmenopozal kadınlarda yalnızca akut başlangıçlı ağrı durumlarında değil uzun süren abdominal ağrı durumlarında da ayırıcı tanıda düşünülmelidir. Bu çalışmamızda, postmenopozal dönemde akut karın ağrısının nadir bir sebebi olan bir adneksiyal torsiyon olgusunu sunduk.

Anahtar kelimeler: Akut abdominal ağrı, adneksiyal torsiyon, laparoskopi, postmenapoz

INTRODUCTION

Adnexal torsion refers to the twist of ovary and fallopian tube around the infundibulopelvic and utero-ovarian ligament. It can be complete or partial. Adnexal torsion usually includes both ovary and fallopian tube, but can include only the ovary or fallopian tube[1].

The true incidence of adnexal torsion is unknown, however the annual prevalence is about 2% to 6%[2]. Adnexal torsion is rarely reported in the postmenopausal women[3]; it is more frequently described in premenopausal women[4,5] and should be considered in any young woman presenting with acute abdominal pain and a pelvic mass.

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Causes of adnexal torsion is different in premenopausal and postmenopausal women. While a simple functional cyst and a dermoid tumor are often the cause of torsion in premenopausal women, they are more rarely the cause of pelvic pain in postmenopausal women. This may be the result of a lower torsion risk of benign ovarian cysts and benign teratomas in post-menopausal women[6]. Furthermore, malignant lesions more commonly occur in postmenopausal women. Malignant lesions are associated with adhesions and this may be related with decreased incidence of torsion in postmenopausal women[1]. Because the presenting symptoms and signs in postmenopausal women are more indefinite than premenopausal women, diagnosis of adnexal torsion is not often considered in postmenopausal women. Postmenopausal women with abdominal and/or pelvic pain are mostly suspected of more common reasons for acute pain such as urinary tract infection, diverticulitis, peptic disease and cholelitiasis[6]. Here, we present a case with acute abdominal pain due to adnexal torsion in a postmenopausal woman.

CASE

A 68-year-old postmenopausal woman presented with a one-week history of lower abdominal pain and discomfort. The pain was constant and non-radiating. Her medical history was unremarkable. Examination revealed a normal pulse rate, blood pressure and temperature. Physical and vaginal examination revealed a tense mass in the right adnexa. Ultrasound scan depicted a right-sided, well-circumscribed, homogeneous cystic mass with low-level echoes measuring 110×80 mm. Free fluid was not noted in the Douglas pouch.

Her full blood count, electrolytes, liver function tests and urea were normal. Cancer antigens (CA-125, CA-19-9, CA-15-3) and carcino- embriyonic antigen (CEA) were obtained and found to be within normal limits. A computerised tomography (CT) scan was also requested. CT revealed a cyst measured 105×70 mm with homogeneous and well-circumscribed mass locating anterosuperior of pelvis. She was prepared for laparoscopic exploration on the next day, due to the fact that her pain did not relieve with a suspicion of torsion.

At surgery, peritoneal washing was obtained initially. Then pelvis and upper abdomen were closely examined. Right tuba-ovarian cystic mass that was dark-red in color and round-shaped was appeared to be necrotic and gangrenous (Figure 1). The mass had twisted twice on its pedicle (Figure 2).

The uterus, left adnex, bowels, appendix, liver and hemidiaphragm were observed as normal. Firstly, right salpingo-oophorectomy was performed and right adnex was sent to frozen section during surgery. Then, laparoscopic total hysterectomy and left salpingo-oophorectomy were performed. Analysis of frozen section revealed benign pathology. Moreover, we performed multiple peritoneal and omental biopsies, because of the fact that results of frozen section analysis can be unreliable in necrotic tissues. The patient's hospital course was uneventful. She was discharged 2 days after surgery. Histopathological examination of specimen showed simple ovarian cyst. There were severe congestion, necrosis and hemorrhage within the wall of the ovary. Fluid cytology and biopsies were reported as benign. No special complaint was noted during 6-week follow-up.

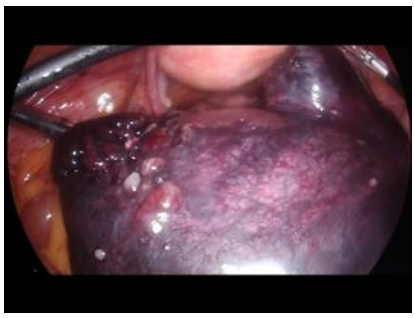

Figure 1. Intra-operative appearance of the torted right necrotic tubo-ovarian mass

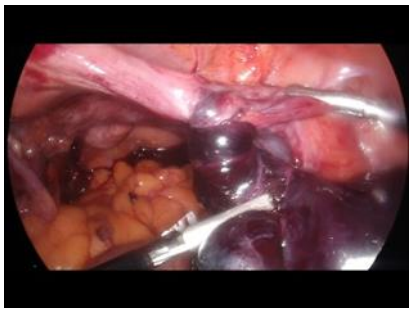

Figure 2. Appearance of right adnexa twisted twice on its pedicle.

DISCUSSION

Adnexal torsion is rarely reported in the postmenopausal age group[3] and it is more common in premenopausal women[4,5]. In most of the cases the presenting symptom is acute onset of abdominal pain, nausea and vomiting. The diagnosis of adnexal torsion is often challenging due to nonspesific clinical, laboratory and physical examination findings[7,8]. The ultrasound image associated with adnexal torsion often demonstrates a unilaterally enlarged ovary with a cyst but this is not always the case[1]. Both pelvic or transvaginal ultrasonography and Doppler ultrasonography has shown partial success in diagnosing ovarian torsion[9,10]. Ultimately, precise diagnosis of adnexal torsion is mostly confirmed intra-operatively.

Adnexal torsion is a surgical emergency and there are conservative and definitive options for treatment. The management of adnexal torsion has evolved over the last few decades from an aggressive approach to a more conservative approach[11,12]. Patient's age, fertility desire, menopausal status and evidence of ovarian disease are all factors considered in the management decision. Conservative approach includes only detorsion of adnex and aspirating or removing any associated cyst[1]. This approach is extremely valuable for the premenopausal patient. Detorsion has been shown to be safe and ovarian function could be preserved in many patients[6].

Aggressive approach includes salpingectomy and/or oophorectomy and bilateral salpingo-oophorectomy with or without total hysterectomy1 Since the postmenopausal patients are more likely to have a complex solid/cystic mass and coupled with their unclear symptomatology, more aggressive surgical approach is usually needed in case of operation decision. The malignancy risk of adnexal torsion is not precisely known in postmenopausal women. Only a number of reports to date have investigated the specific characteristics of adnexal torsion in this group of patients[4,13]. Eitan et al.[6] compared 27 menopausal women with surgically proven adnexal torsion to 29 premenopausal ones. They reported complex adnexal masses on ultrasound more commonly demonstrated in the postmenopausal group (33% vs. 7%). An increased rate (22%) of malignant disease was also noted in this group. Similarly Lee et al.[14] compared 37 menopausal women with adnexal torsion to 98 premenopausal ones. They also reported a 15% incidence of malignancy in the entire group, and a 25% incidence in women older than 60 years. On the other hand, Herman et al.[15] demonstrated a malignancy rate of 3% among postmenopausal women which was lower than that of the previous reports[6,14].

The surgery of adnexal torsion is performed either via conventional exploratory laparotomy or laparoscopic surgery. Because of well-known advantages such as shorter hospital stay, decreased pain, better cosmetic results and faster recovery, laparoscopic surgery serves not only as a diagnostic tool but is also an excellent therapeutic instrument in case of appropriate indication[16,17]. Since pre-operative examination and intra-operative appearance of pelvis was not suspicious for malignancy, we preferred laparoscopy and performed aggressive approach including bilateral salpingo-oophorectomy with total hysterectomy, multiple peritoneal biopsies and omental biopsy. In conclusion, adnexal torsion is unusual in the postmenopausal age group, which is a rare presentation of this pathology. It should be considered in not only sudden onset but also long-term abdominal discomfort. In case of appropriate indication, management should be performed by minimally invasive surgery due to its well-known advantages to conventional exploratory laparotomy. We also suggest multiple peritoneal biopsies and omental biopsy in postmenopausal women since the results of frozen section analysis can be unreliable in necrotic tissues.

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