

Case Report

Mucocele of appendix mimicking ovarian malignancy in a postmenopausal woman: report of a case

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Abstract

Appendiceal mucocele is a rare entity which is characterised by cystic dilatation due to abnormal accumulation of mucus in the lumen of the appendix. It is usually asymptomatic and radiologically observed as cystic mass in the right lower quadrant. We report a case regarding 60-year-old woman presenting with right adnexal mass. Mucocele of appendix was detected intraoperatively and diagnosis was confirmed pathologically. Appendiceal mucocele should be included in the differential diagnosis of the cystic masses observed at the right lower quadrant.

Key words:

Appendix, cystadenoma, mucocele, adnexal tumor

Introduction

Mucocele of the appendix is a descriptive term for an appendix distended by mucus. It was first described by Rokitansky in 1842[1]. It is a rare lesion. The incidence of appendiceal mucocele is estimated to be 0.2-0.3% of appendectomy specimens [2-4]. Appendiceal mucoceles are more common in women, with a female-to-male ratio of about 4:1[2,3]. The most common symptom is right lower pain. Early diagnosis is rare because patients often present with nonspecific symptoms and can also be asymptomatic. Early diagnosis and resection are important since some appendiceal mucoceles are malignant and may lead to peritoneal dissemination and the clinical syndrome of pseudomyxoma peritonei. Here is presentation of a woman with right adnexal mass and complaining with right lower abdominal pain.

Case presentation

A 60-year-old woman presented with intermittent lower

abdominal pain. She was otherwise healthy and there was no associated urinary or bowel symptoms. She was multiparous and had been postmenopausal for 20 years. Systemic physical examination was normal. There was no tenderness in deep palpation of abdomen. In gynecologic examination, uterine size was normal and a mass detected in right adnexa. An ultrasound scan showed a right sided pelvic mass with internal septation and echoes, measuring 58×32 mm. Similarly, magnetic resonance imaging revealed a 56×30 mm cystic lesion with internal echoes. The first possible diagnosis was ovarian cyst. The CA 125 was within normal limits (CA125:6 U/mL). The patient was operated due to probable diagnosis of ovarian cyst with suspected malignancy. At laparotomy we found bilateral adnexa were normal and there was a 6x 4cm cystic mass originated from appendix which contained an abundant quantity of mucus (Figure 1). Intra-abdominal exploration showed no ascitis and metastasis. A routine appendectomy was performed by a general surgeon (Figure 2). Patient also underwent total abdominal hysterectomy and bilateral salpyngo-oophorectomy (TAH+BSO) as shown in Figure 3. Pathological examination revealed mucocele of the appendix.

Discussion

Mucocele of the appendix is a rare disease which is characterized by a distended, mucus-filled appendix. It is most

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common in the sixth or seventh decade of life with a female predominance. It can be classified into four histological subtypes including retention cysts, mucosal hyperplasia, cystadenomas and cystadenocarcinoma [5-8]. The prognosis of appendiceal mucoceles relate to their subtypes.

Figure 1.



Intraoperative appearance of mucocele

The most common symptom is acute or chronic right lower quadrant abdominal pain. It may be presented with palpable abdominal mass, lower right abdominal pain, gastrointestinal bleeding or nonspecific signs and symptoms like weight loss, nausea, emesis, altered bowel habits, hematuria, anemia and acute appendicitis [3,9]. The symptoms are nonspecific or absent. Thus, the majority of appendiceal mucoceles are discovered incidentally and the differential diagnosis is more difficult [2,10,11] as in the case presented here.

Complications of mucocele include intussusception, bleeding, perforation, peritonitis, rupture and pseudomyxoma peritonei [3]. An appendiceal mucocele may be discovered as an incidental finding during radiologic, sonographic, endoscopic evaluation or surgery for ovarian masses. The diagnostic studies such as ultrasonography, computerized tomography, magnetic resonance imaging and colonoscopy are valuable [12]. The ultrasonographic appearance of appendiceal mucoceles can vary widely from well-encapsulated purely cystic lesions to anechoic fluid, hypoechoic masses with fine internal echoes, or complex hyperechoic masses. Thus, they can mimic ovarian cysts. However, a specific ultrasonographic marker is the so-called "onion skin sign" and its "dumbbell structure" [13]. The computerized tomogra-

phy finding was a well-encapsulated cystic mass with a wall of variable thickness [4,12,14].

Figure 2.



Specimen just after appendectomy

Sometimes appendiceal mucocele mimics an adnexal cystic mass and the patient undergoes operation with this diagnosis as in our case. Therefore, an appendiceal mucocele should be considered in the differential diagnosis of a right-sided pelvic mass.

Figure 3.



Specimen of uterus and bilateral adnexa

The diseases mimicking mucocele of the appendix include hydrosalpinx, ovarian cyst, lymphocele, mesenteric cyst, enteric duplication cyst, hematoma and abscess, among others [15]. Surgical resection of mucocele without spillage of its content is appropriate management of the disease [16,17]. Appendectomy alone or combined with TAH+BSO via laparotomy is recommended in benign neoplasms of appendix in an elder female [16]. In the present case, the patient underwent TAH+BSO surgery.

In conclusion, mucocele of the appendix can mimic an adnexal mass and prove to be a diagnostic challenge.

Appendiceal mucocele should be considered in differential diagnosis of right adnexal masses. When encountered incidentally during gynecological surgery, the relevant therapy of appendiceal mucocele is appendectomy alone or combined with TAH+BSO operation by careful examination of the abdominal cavity for concomitant tumors proceeding with close follow-up for a long time

Conflict of interest statement

The authors declare no conflict of interest.

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