

Case Report

Acute Appendicitis Concomitant with Ovarian Torsion: A Case Report and Review of the Literature

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Abstract: Acute appendicitis associated with acute adnexal pathology is very rare with a few cases reported in the literature. To illustrate this unusual association, we report a case of a 53-year-old female patient admitted to the emergency department with diffuse abdominal pain and hyperleucocytosis. The abdominal CT scan showed appendicular peritonitis and a pelvic mass. The patient underwent surgery, and we kept the diagnosis of appendicular peritonitis associated with torsion of a right ovarian tumor. Appendectomy and right salpingo-oophorectomy were performed with satisfactory postoperative outcomes. Systematic exploration of the genital tract in female patients with appendicitis is indispensable to eliminate an associated ovarian torsion or other adnexal pathologies.

Keywords: Acute appendicitis, ovarian torsion, laparoscopy.

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INTRODUCTION

The etiological diagnosis of acute abdominal pain is broader in female patients. It is necessary to make a differential diagnosis between digestive, obstetric, and gynecological causes.

The association of appendicitis with ovarian torsion is a very rare situation. To our knowledge, our case is the fourth one mentioned in the literature.

CASE REPORT

We present the case of a 53-year-old female, with a medical history of diabetes and high blood pressure, who suffered, 2 days before her admission to the emergency department, from abdominal pain initially localized in the right iliac fossa then generalized, accompanied by vomiting, diarrhea, and fever. The physical examination found a conscious patient, her weight was 121 kg and a height of 165 cm (BMI: 44.4). The patient had a heart rate of 120 beats/min and elevated blood pressure of 170 / 100 mmHg. The abdominal examination was difficult because of the fat panicle, but the patient had diffuse abdominal tenderness, especially in the right iliac fossa. Biological analyzes showed a leukocyte level at 19,300 / mm³, mainly neutrophils, Hb level at 11 g / dl, and a blood sugar level at 3 g/l. The CT scan showed signs of appendicular peritonitis associated to a limited pelvic

mass, measuring 59x63mm, referring to a teratoma (Fig 1).

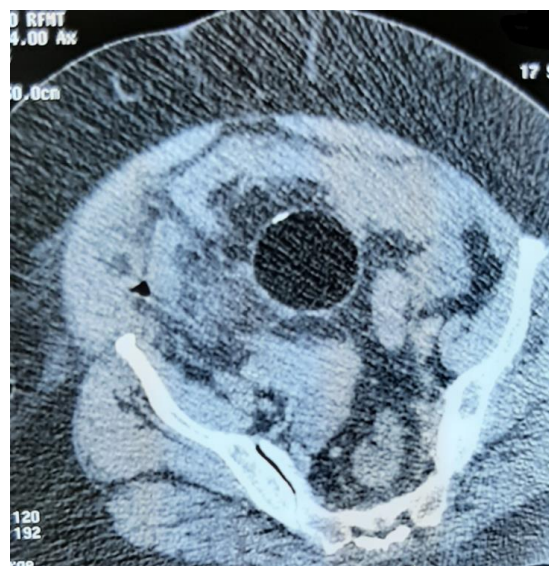


Fig 1: Abdominal scan showing signs of appendicitis with intraperitoneal effusion and pelvic mass

Emergency laparotomy was performed and surgical exploration found a purulent effusion of 400ml, latero-caecal appendix perforated in the middle part, and torsion of a right ovarian tumor. An appendectomy and a right salpingo-oophorectomy were performed,

followed by lavage of the abdominal cavity and wide drainage (Fig 2, 3 & 4.



Fig 2: Intraoperative view showing torsion of an ovarian tumor



Figure 3: Right salpingo-oophorectomy



Figure 4: Appendectomy

The postoperative follow-up was uneventful, and the patient was discharged from the hospital 03 days after surgery.

Macroscopic examination of the ovarian mass was more in favor of a teratoma (solid mass containing teeth and hair) Fig 5. However, microscopic and

immunohistochemical analysis showed a serous cystadenoma.



Figure 5: Macroscopic aspect of the ovarian tumor

DISCUSSION

Acute appendicitis is the most frequent cause of emergency surgery, so much so that about 7% of the general population undergoes appendectomy at some point in their lives [1]; In women the differential diagnosis is extensive and is mainly with ovarian pathology; Two Russian studies have shown that 4.2% of the women with acute appendicitis have had an appendectomy at some point in their lives [2, 3].

4.6% of women diagnosed with acute appendicitis have an associated gynecological pathology [2, 3].

Ovarian torsion most often occurs in the presence of ovarian tumors and cysts (4) as illustrated by the present case and others, but it can also occur on the normal ovary.

Concurrent acute appendicitis and torsion of the ovary in women of childbearing age are extremely rare, in the literature 4 cases have been reported including our case; the age varies between 17 and 53 years. The first described case of this association was by Nikolaev in 1971 [5]; 7 years later Kokoszka described a case of uncomplicated appendicitis associated with a cyst of the tortuous right ovary [4], and the description of the 3rd case was in 1986 by Gavrilenko [6].

In all cases; the diagnosis is based on clinical examination; and in our case an abdominal CT scan was performed.

A median laparotomy was performed in all cases; and the surgical procedure consisted of an appendectomy combined with an oophorectomy with or without salpingectomy. The results were satisfactory and histological analysis revealed an ovarian lesion in all cases.

The laparoscopic approach is of diagnostic and therapeutic value. It allows careful exploration of the abdominal cavity and treatment of associated surgical lesions [7], and has been described as safe and resulting in short hospital stays, good cosmetic results, and a rapid return to baseline activity [8].

CONCLUSION

During an appendectomy in a female patients, an exploration of the genital tract (ovaries; tubes; uterus) is necessary in order to detect an associated lesion that may require surgery. Laparoscopic approach is useful and doesn't require high surgical experience.

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