

Appendicular Abscess: Unusual Clinico-Radiological Appearance

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Abstract

Introduction: Appendicitis is the most common surgical emergency in childhood. It's a common surgical disease that can be presented with a wide variety of atypical clinical features. **Clinical Case:** We report a case of a 7-year-old female patient admitted for abdominal pain dating back 20 days, radiological exploration suggested a right ovarian teratoma, while laparoscopic exploration has objective an appendicular abscess. **Conclusion:** This case has allowed us to clarify an atypical case of complicated appendicitis, and also to show the contribution of laparoscopy.

Keywords

Appendicular Abscess, Ovarian Teratoma, Laparoscopic Exploration

1. Introduction

Appendicitis is the most common surgical emergency in childhood. It's a common surgical disease that can present across a broad spectrum of symptoms and pathologies.

Due to the position and length of the appendix, intraabdominal abscesses after perforation in complicated acute appendicitis may occur in several different locations and sometimes unsuspected anatomical ones.

In this work, we present a case of appendicular abscess presenting as an ovarian teratoma.

2. Observation

A 7-year-old female patient with no notable pathological history was admitted for abdominal pain dating back 20 days, of increasing intensity, associated with

vomiting, the patient was put on symptomatic treatment without improvement.

The examination found a soft abdomen with no mass neither on palpation or on digital rectal exam, with no intestinal motility disorders or hematuria, and without any notion of trauma or signs of early puberty. The whole evolving in a context of apyrexia and conservation of the general state.

Echography was performed twice and notes (Figure 1) the presence of a heterogeneous right latero-uterine tissue mass measuring 82 * 62 mm, presenting a heterogeneous tissue sound structure with a triple component: fluid, fat, and tissue, which suggests a right ovarian teratoma.

A Computed Tomography Scan (Figure 2) was performed showing abdominal-pelvic mass measuring 67 mm of anteroposterior long axis, 60 mm of transverse long axis, and extending over a height of about 80 mm. Cystic in appearance with the presence of air-fluid level.

This mass pushes back the intestinal loops and seems to compress the two pelvic ureters leading to bilateral ureterohydronephrosis.

Laboratory examination showed white blood cell (WBC) count $11.3 \times 10^9/L$. CRP was normal.

Tumor markers, BHCG and AFP were negative.

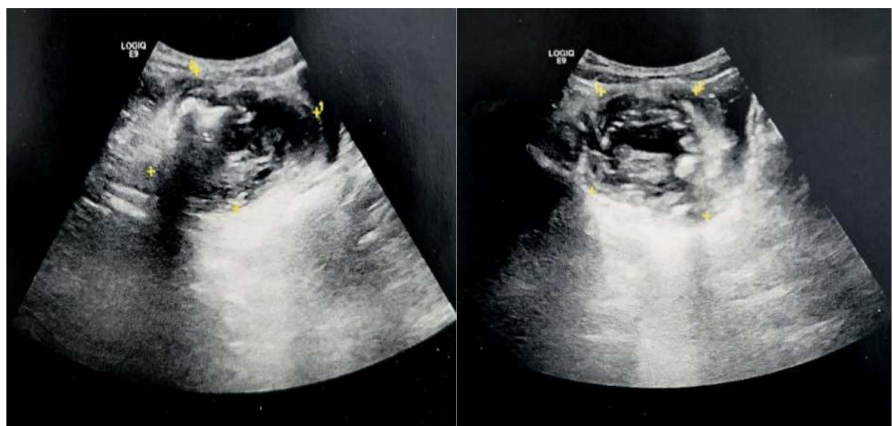


Figure 1. Ultrasound appearance: heterogeneous right latero-uterine tissue mass. (*) represents mass.

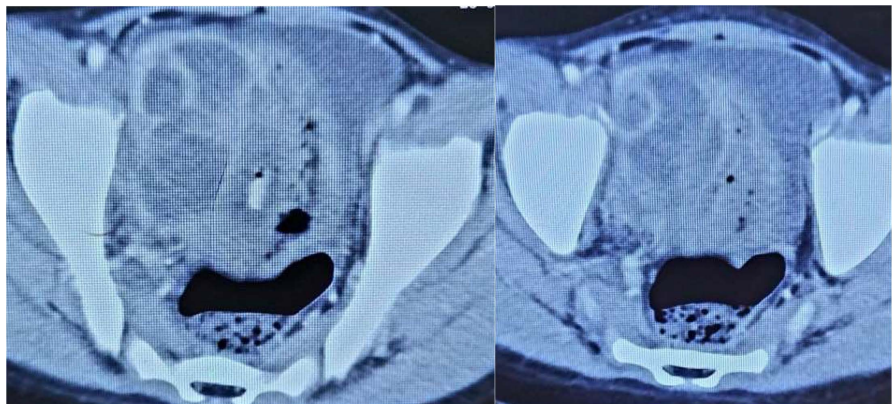


Figure 2. Axial computed tomography. (*) represents mass.

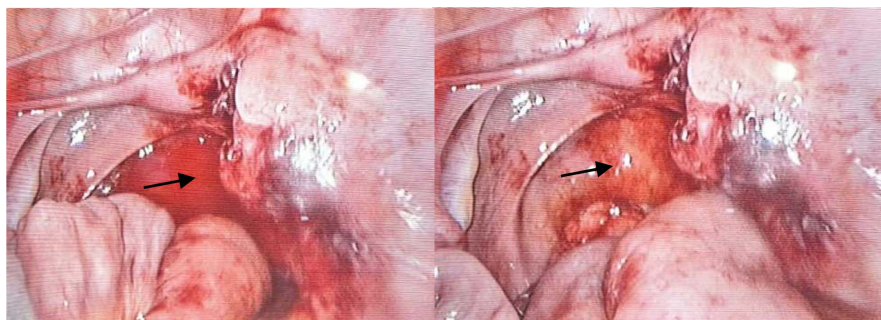


Figure 3. per-operative images. (*) represents the inflamed right ovary and fallopian tube; (↔) represents the site of the collection after dissection

Laparoscopic exploration (**Figure 3**) showed an appendicular abscess clogged by the last ileal loop, the omentum attached to the right fallopian tube, and the ovary.

The appendix was in a pelvic position with the presence of stercolith. The right ovary and fallopian tube were inflamed, with no cystic formation.

The left ovary and fallopian tube, and the 2 ureters were without anomalies.

We proceeded with drainage of the abscess, followed with appendectomy according to the “Out technique”, and peritoneal lavage.

Patient’s evolution was marked by clinical and biological improvement, as well as a radiological assessment and follow-up for the origin of the uretero-hydronephrosis.

3. Discussion

Acute appendicitis in children is the most common condition requiring urgent abdominal surgery, and early diagnosis is critical in preventing perforation, abscess formation and postoperative complications [1].

The preoperative diagnosis of appendicitis is heavily reliant on imaging findings, with clinical manifestations and laboratory test results playing a supporting role. However, the identification of appendicitis at imaging is not always straightforward, and atypical imaging appearances can add to the interpretive challenge [2].

In our case, the diagnosis was not clear. Ultrasound appearance suggests a right ovarian teratoma given the presence of a heterogeneous tissue with a triple component, cystic, fatty and tissue, and on CT scan, the cystic nature of the mass in contact with the right ovary, and its heterogeneous character, suggested a tumoral origin.

This clinical and radiological discrepancy was the right indication to perform a laparoscopic exploration that enables visualization of the whole abdominal cavity and to determine the nature of the mass. So, the diagnosis of appendicular abscess was raised during laparoscopy.

In addition to its role in the positive and topographical diagnosis, laparoscopy also contributes to the differential diagnosis which is not always simple.

It offers the possibility of making certain differential diagnostics in girls during the reproductive age. And it allows to find extra-appendicular lesions con-

stituting an alternative to the diagnosis of appendicitis [3] [4] [5].

Oslen and Coll report a study of 1043 patients who received laparoscopic diagnosis for suspicion of acute appendicitis. According to this series, laparoscopy made it possible to establish a diagnosis in more than 89% of cases and other lesions were discovered in 14.28% of cases, all this supports the concept of making a laparoscopic diagnosis to avoid a more traumatic procedure unnecessary.

For decades, open appendectomy has been the standard treatment for all forms of appendicitis with excellent results [6] [7]. Since its description in the early 1980s, laparoscopic appendectomy became an acceptable approach for simple appendicitis in children [8].

Kouwenhoven, Guller, and Towfigh consider the laparoscopic method to be safe and effective in patients with appendicular perforation, peritonitis, and appendicular abscess [9]. It is confirmed by comparative research made by Guller, which demonstrated a lower level of complications in patients operated by the laparoscopic method [10].

4. Conclusion

Our case has allowed us to clarify an atypical case of complicated appendicitis, and also to show the contribution of laparoscopy in the management of such cases. Then, we should put in mind complicated appendicitis in front of an atypical clinical and radiological presentation.

Patient Consent

Consent to publish the case report was not obtained. This report does not contain any personal information that could lead to the identification of the patient.

Authorship

All authors attest that they meet the current ICMJE criteria for Authorship.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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