Torsion of the hydatid of Morgagni in a teenage girl

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DESCRIPTION

A teenage girl comes to our emergency department for a 2-month history of intermittent right lower quadrant (RLQ) abdominal pain, which worsened in the last 24 hours. She had nausea but neither fever nor vomiting. Blood tests were normal: white blood cells 9800/mm³, red blood cells 493, platelets 220, haemoglobin 13.7 g/dL and C-reactive protein <0.5 mg/dL. The abdominal ultrasound showed a cystic lesion of 27 mm in size with a single-chambered, located in the RLQ with normal appendix and no ascites (figure 1A). Due to the suspicion of the mesenteric cyst, an abdominal MRI was performed. The MRI confirmed the presence of the 12×16×11 mm cystic lesion, between the upper part of the uterus and bladder, inside the omentum with the final diagnosis of a mesothelial cyst (figure 1B). A laparoscopy was performed showing a 10 mm necrotic cyst, guessed in the omentum, with a thin twisted pedicle arising from the right fallopian tube (figure 1C). The pedicle was transected, and the cyst was removed from the umbilical optical port (figure 1D). The patient was discharged 2 days after the procedure. The postoperative course was uneventful. Pathological examination gave the diagnosis of hydatids of Morgagni (figure 1E–F).

The most common surgical cause of acute RLQ in children is acute appendicitis. Other frequent causes of RLQ abdominal pain in women are ovarian

Figure 2 Line diagram of the normal anatomy.

torsion and torsion of other structures involving the fallopian tube or Wolffian duct remnants. Torsion involving the hydatids of Morgagni among girls is rarely reported in the literature.¹

The hydatid of Morgagni was first described in 1790 by Morgagni.¹ These small structures are embryonal, pedunculated remnants of Wolffian duct usually located in the terminal part of the fimbria (figure 2).² Typically, the hydatid of Morgagni is a small oval or spherical structure that rarely exceeds 1–2 cm in diameter.³ Torsion in women is very rare and, in most cases, these lesions are discovered incidentally during surgical or laparoscopic procedures performed for other reasons and usually have no clinical significance.⁴ When the diameter is greater than 4 cm the ultrasound is often diagnostic but in the case of lesions less than 2 cm the exact diagnosis may be difficult. In previous reports, the patients were operated on for acute appendicitis and the definitive diagnosis was obtained only during the laparotomy or laparoscopy, such as in our case, where the preoperative diagnosis was mesothelial cyst.^{1–4} Dilatation and torsion of the Wolffian duct remnants are frequently seen in adult women due to the secretory activity of the tubal-type epithelium after or during the pregnancy but very rare in paediatric

Figure 1 (A) Ultrasound showing cystic lesion inside the omentum. (B) MRI showing the presence of the 12×16×11 mm cystic lesion, between the upper part of the uterus and bladder, inside the omentum. (C) Intraoperative picture showing the hydatid of Morgagni, located inside the omentum, with a twisted pedicle arising from the right fallopian tube. (D) Histology of the cyst showing cyst wall lined by ciliated columnar epithelial cells.

Patient's perspective

I am very happy about the care received by my daughter. I hope that the publication of this article will help other doctors and patients to better recognise and treat this condition.

Learning points

- ▶ Torsion of the hydatids of Morgagni is rare and should be included in the differential diagnosis in young women with acute abdominal pain.
- ▶ The pelvic organs should be examined in these post-menarchal patients especially in the presence of normal inflammatory markers.
- ▶ Correct diagnosis may avoid unnecessary surgery.

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patients.⁵ In conclusion, it is very important for the paediatric surgeon and paediatrician to be aware of this condition as a cause of RLQ pain. The clinical course is often self-limiting, and the treatment may be conservative based on antibiotic and anti-inflammatory drug administration such as described for male patients, avoiding unnecessary surgical exploration and related anaesthesiological procedures. Surgery should be reserved only in case of associated adnexal torsion.

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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