

CASE REPORT

# Primary Torsion of the Omentum Mimicking Acute Appendicitis in a Female Child: Case Report and Review of Literature

Hossam Elshafei, Hessah Al Buainain, Kamalesh Pal, Dilip Mitra

Department of Surgery, College of Medicine, University of Dammam, King Fahd Hospital of the University, Alkhobar, Kingdom of Saudi Arabia

**Address for correspondence:** Dr. Hossam Elshafei, Department of Surgery, Specialist in Pediatric Surgery Division, College of Medicine, University of Dammam, King Fahd Hospital of the University, Al Khobar - 31952, PO Box- 40178, Kingdom of Saudi Arabia. E-mail: [hossamshafei@yahoo.com](mailto:hossamshafei@yahoo.com)

## ABSTRACT

Primary torsion of the omentum is an unusual cause of an acute abdomen and commonly mimics acute appendicitis. A case of primary omental torsion seen in a seven-year-old girl is discussed. All the signs and symptoms mimicked acute appendicitis. The patient underwent emergency laparotomy in which a normal appendix and serous fluid in the pelvis were observed. The pathological diagnosis was a primary torsion of the omentum which was excised. This case helps to emphasize the importance of a routine exploration of the abdomen when finding a normal appendix at the time of laparotomy.

**Key words:** Acute abdomen, children, torsion of omentum

التواء الثرب (المساريقا) سبب غير متواتر لحالة البطن الحادة، وتشبه في العموم التهاب الزائدة الدودية. تم عرض حالة التواء الثرب لدى طفلة في السابعة من عمرها، وكل الأعراض كانت تشبه التهاب الزائدة الدودية الحادة. وقد أجريت عملية للطفلة أكدت التشخيص. تؤكد هذه الحالة أهمية استكشاف البطن عند اكتشاف السوائل المصلية مع وجود زائدة دودية طبيعية.

## INTRODUCTION

The rare phenomenon of primary torsion of the omentum has received extensive attention in the surgical literature of this century since it was first described in 1899.<sup>[1]</sup> Over 100 adult cases have been reported;<sup>[2]</sup> the surgical significance of omental torsion is not its etiology, pathogenesis, or treatment, or even its curiosity, but rather its simulation of appendicitis or other acute abdominal conditions requiring emergency surgical treatment.<sup>[3]</sup> Laparoscopy is an accurate modality for the diagnosis of

both acute and chronic abdominal pain syndromes and the primary recommended invasive intervention since 1998 in such cases,<sup>[4]</sup> whenever applicable.

Age and obesity are the most noteworthy predisposing factors. This lesion is most frequently seen in the middle age group (30 to 50), and this may be related to the ordinary growth of the omentum which is slow but continuous.<sup>[1,5]</sup>

## CASE REPORT

A seven-year-old Saudi girl complained of abdominal pain for seven days, fever for three days, and vomiting for two days. During this period, she was being treated with analgesics in the pediatric outpatient care and was finally transferred to the surgical side. On examination, the abdomen showed tender right iliac fossa and right lumbar area associated with guarding and absent rebound tenderness. Bowel sounds were audible and per-rectal

### Access this article online

Quick Response Code:

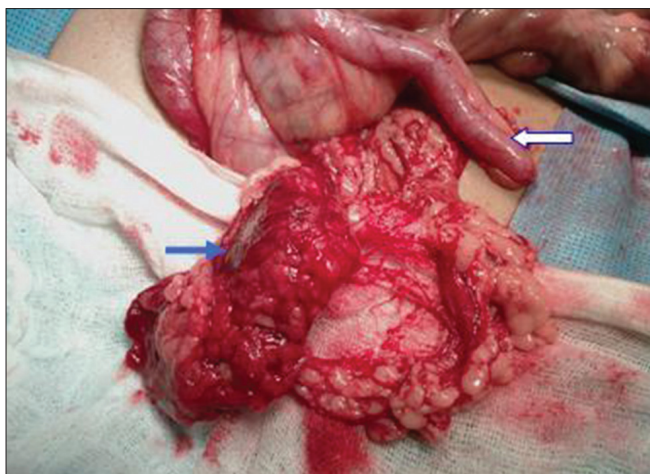


Website:

[www.sjmms.net](http://www.sjmms.net)

DOI:

10.4103/1658-631X.112932



**Figure 1:** Intraoperative view of mass of torted omentum (blue arrow) and normal-appearing appendix (white arrow)

examination was essentially normal. The entire picture mimicked a typical presentation of acute appendicitis.

Investigations showed the following. White blood cells count: 5.700 c/c; plain X-ray: Normal gas distribution; ultrasound: No free fluid collection in abdomen, no masses detected; computed tomography: Not significant; examination under anesthesia: Palpable mass in the right lumbar area.

Exploration; through right Lanz incision for appendectomy; was done and it revealed a normal appendix, which was healthy and soft, not tense or obstructed, with minimal clear serous fluid. Further exploration to detect the palpable mass near the colon revealed torsion of the omentum which was adherent to the ascending colon making it like a mass [Figure 1]. The affected omentum was resected and appendectomy was done. The patient was discharged on the second postoperative day and was doing well.

## DISCUSSION

Primary torsion of the omentum is an uncommon cause of an acute abdomen and usually mimics acute appendicitis.<sup>[6]</sup> A lot of reports in obese children are supportive of obesity as one of the predisposing factors.<sup>[7]</sup> In our report, the child was not obese and she had a body mass index of 21.

The paucity of gastrointestinal symptoms, anorexia, nausea, vomiting, and the relatively long duration of symptoms should increase the index of suspicion<sup>[6]</sup> The pain usually is colicky, intermittent in nature, and is exacerbated by moving or eating,<sup>[8]</sup> which matches our case that had one week of similar abdominal symptoms.

It is seldom considered in the differential diagnosis preoperatively based on clinical findings and the diagnosis is only established during surgery<sup>[9]</sup> as in our case.

## CONCLUSION

Omental torsion should be suspected whenever negative exploration for acute appendicitis is found (normal appendix). It gives a typical picture of acute appendicitis. Excision of the torted omental mass with or without partial omentectomy is the desired surgical treatment in these cases. Recently, diagnostic laparoscopy has facilitated management of such cases.

## REFERENCES

1. Altemeier WA, Holzer CE. Primary torsion of the omentum. *Surgery* 1946;20:810.
2. Yeow WC, Jayasundera MV, Hool G, Sinniah R. Acute abdomen due to omental torsion. *Med J Aust* 2005;185:212.
3. Neely JC, Holzer CE Jr. Primary torsion of the omentum in children: A report of three cases. *Ann Surg* 1958;148:995-1000.
4. Salky BA, Edey MB. The role of laparoscopy in the diagnosis and treatment of abdominal pain syndromes. *Surg Endosc* 1998;12:911-4.
5. Morris JH. Torsion of the Omentum. *Arch Surg* 1932;24:40.
6. Pinedo-Onofre JA, Guevara-Torres L. Omental torsion. An acute abdomen etiology. *Gac Med Mex* 2007;143:17-20.
7. Chew DK, Holgersen LO, Friedman D. Primary omental torsion in children. *J Pediatr Surg* 1995;30:816-7.
8. Floyd MS Jr, Kelly BJ, Udani P, O'Donnell N, Morrison P. Abdominal pain in a 9-year-old: Omental torsion masquerading as appendicitis. *Br J Hosp Med (Lond)* 2008;69:47.
9. Chaudhary D, Rajkarnikar R, Joshi MR, Thapa P, Singh DR, Sharma SK. Omental torsion: A case report. *Kathmandu Univ Med J (KUMJ)* 2005;3:170-2.

**How to cite this article:** Elshafei H, Al Buainain H, Pal K, Mitra D. Primary torsion of the omentum mimicking acute appendicitis in a female child: Case report and review of literature. *Saudi J Med Med Sci* 2013;1:46-7.

**Source of Support:** Nil, **Conflict of Interest:** None declared.