Omental torsion, a rare but serious differential diagnosis of acute appendicitis: A case report

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ABSTRACT
Torsion of the greater omentum is a rare condition. The clinical picture may be closely similar to inflamed appendix. It may be primary when no obvious cause is found or secondary to other pathology like intra abdominal infection, post surgical wound or internal or external hernia. Less than 300 cases have been registered all over the world since 1890 with a rare photographic documentation. A few cases diagnosed preoperatively. Only two reported cases have been published in UAE.

Keywords: omental torsion, primary omental torsion, secondary omental torsion

INTRODUCTION
Although it is a rare condition, Omental torsion may be a serious intra-abdominal catastrophe. The diagnosis may be challenging and its features closely mimic acute appendicitis\(^1\). The omentum may be twisted along its long axis resulting in vascular compromise. About 300 published cases are described. It is mainly diagnosed at surgery because of lack of classical gastrointestinal symptoms. Review of more than 800 cases of appendectomy suggesting that omental torsion can be found in one out of every 600-operations for presumed appendicitis\(^2,3\). Eitel first described the omental torsion in 1899\(^4\).

CASE REPORT
A 24-years old male patient presented to the Surgical Outpatient Department at the Gulf Medical College Hospital complaining of generalized abdominal pain of two days duration, more pronounced at the right iliac fossa, mild nausea, no vomiting, normal bowel motion and without any urinary symptoms. Past medical & surgical history was unremarkable.

On evaluation he was in a mild pain, hemodynamically stable, afebrile and a tender right iliac fossa with positive rebound tenderness was ascertained. Bowel sounds were present, CRP was 127mg/dl and TLC was 15000/mm. Renal and liver panels were within the normal limit. Other biochemical markers were normal. Abdominal ultrasound showed congested appendix of diameter 6mm and no other pathology was detected.

Due to financial issues, the patient underwent an open appendicectomy. At surgery, a right gridiron incision was made and the appendix was found to be mildly inflamed. Serosanguineous fluid was mopped out, a twisted omentum was found at the right lumbar area and muscle cutting was done using ligasure device. The twisted omentum was delivered to the wound and excised by ligasure device and appendicectomy was done to the patient (Figures 1, 2 & 3).

The postoperative period was smooth & patient discharged at the second postoperative day.

Figure 1: Intraoperative view
Local trauma
5) Occupational hazard with vibrating tools
6) Conditions that induce hyperperistalsis following a heavy meal, change in the body position
7) Mainly on the right side because the omentum is bigger, heavy & more mobile.

Secondary omental torsion is almost always associated with intra-abdominal pathology including tumors, cysts, postsurgical scarring & hernial sacs. The omentum often twists around the right epiploic artery. Signs & symptoms may be of an abdominal pain mainly at the right side and nausea & vomiting are less frequently reported.

It’s rarely diagnosed preoperatively and the treatment is mainly by surgical excision of the affected omentum. -Abadir JS and Wilson SE, 2004 has reported cases diagnosed by CT-Scan preoperatively and conservative treatment was successful in stable patients. If left untreated the omentum may become autoamputated or may develop omental necrosis because of hemorrhage Infraction, intraabdominal abscess, peritonitis or bowel obstruction may also happen.

CONCLUSION
Omental torsion is an identified clinical problem. The presentation closely mimics acute appendicitis, the diagnosis is mainly intraoperative and the surgeon should have a high index of suspicions. It is mainly an idiopathic condition, in spite of reported cases with certain predisposing factors. Omentectomy is still the standard treatment.

REFERENCES
2. Sabiston textbook of surgery, Chapter 43.page 1145.

DISCUSSION
Although omental torsion is a rare case of abdominal pain, it may lead various serious complications. Most patients are middle aged adults in their third to fifth decade of life. The torsion is usually in clockwise direction & mainly in the right side.

Primary Omental torsion can happen without abdominal pathology, but the predisposing factors are:
1) Anatomical variation of omentum: tongue like projection from free edge of omentum, bifidomentum& accessory omentum.
2) Obesity:- Causing irregular fat distribution.
3) Venous redundancy relative to the omental arterial blood supply allowing venous kinking making a fixation point around which the omentum may be twisted.
4) Local trauma

4. Eitel GC. Rare Omental torsion NY Med Rec. 55 1899, 715.

