Letters to the Editor

Primary omental torsion as presentation of acute abdomen. Case report

Key words: Omental torsion. Acute abdomen. Greater omentum. Laparoscopy. Omentum infarction.

Dear Editor,

Primary torsion of the greater omentum (TGO) is an uncommon cause of acute abdominal pain. We report a case of primary omental torsion in a 60-years-old woman with no relevant medical history.

Case report

A 60-years-old woman presented to our department with abdominal pain and a temperature of 38.2 °C with a 2 day history. Abdominal examination revealed tenderness and guarding in the right upper quadrant of the abdomen. Laboratory tests showed leukocytosis with neutrophilia. An ultrasonography was performed, which showed a hypoechoic area, greasy appearance, coinciding with the point of greatest pain of the patient. It was complemented by computed tomography (CT) which described a rounded area of greater omentum (GO) with low attenuation values compatible with TGO. Finally, the patient underwent surgery. An exploratory laparotomy was performed, finding a finger extension of the greater omentum twisted around its own axis with vascular flow engaged in right flank.

The GO was released and resected reviewing the rest of the abdomen, which showed no other pathological findings. She improved after surgery and was discharged on the second hospital day. Histopathological results confirmed that it was a piece of omentum with areas of fat necrosis without histological signs of malignancy.

Discussion

The first case of TGO was described by Eitel in 1899, although the first references in the literature are due to Marchetti in 1858 (1,2). TGO represents 1.1% of all abdominal pains. Its incidence is between 0.0016% and 0.37%. It is more common in men between the fourth and fifth decade of life (3).

The TGO consists in the rotation about its own longitudinal axis of a portion of GO resulting in local vascular compromise which leads to ischemia, causing aseptic peritonitis and acute abdomen (4,5). Patients can mimic the symptoms of acute appendicitis, cholecystitis, diverticulitis, or ovarian torsion symptoms (6). The first symptom that patients describe is abdominal pain, more frequently located in the right side, not irradiated, finding signs of peritoneal irritation (7). Nausea and vomiting are uncommon because intestinal peristalsis is preserved (5).

Advances in the development of imaging tests such as CT and the increment in exploratory laparoscopy have increased its diagnosis. Abdominal ultrasonography has little sensitivity compared to CT, which has a high accuracy, allowing display, in most cases, of a heterogeneous mass of fatty tissue with swirl with concentric lines in the GO (8).

Laparotomy represents the diagnostic method and treatment in most of the cases. Although many authors, such as Goti et al., maintain that exploratory laparoscopy and resection of the affected omentum with appendectomy is the treatment of choice (9).

Conservative treatment had been described of this entity in selected cases (10). However, surgery is currently the treatment of choice for complications such as intra-abdominal abscesses, sepsis or adhesion formation.

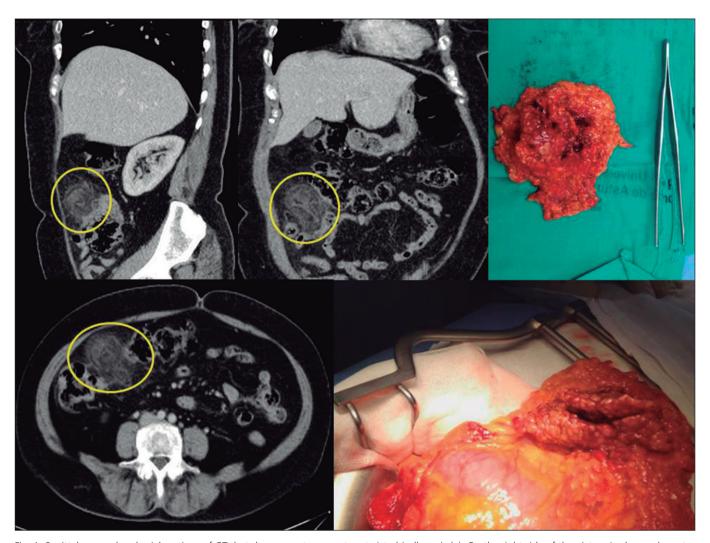


Fig. 1. Sagittal, coronal and axial sections of CT that shows greater omentum twisted (yellow circle). On the right side of the picture is observed greater omentum twisted along Its axis. Greater omentum resected.

Fernando Mendoza-Moreno¹, María del Rocío Díez-Gago², Diego Martín Córdova-García¹, Antonio Pedraza-Muñoz¹, Manuel Díez-Alonso¹, Fernando Noguerales-Fraguas¹ and Francisco Javier Granell-Vicent¹

¹Service of Gastrointestinal and General Surgery and ²Emergency Service. Hospital Universitario Príncipe de Asturias. Alcalá de Henares. Madrid, Spain

References

- Anton JI, Jennings JE, Spiegel MB. Primary omental torsion. Am J Surg 1945;68:303. DOI: 10.1016/0002-9610(45)90229-7
- Modaghegh MH, Jafarzadeh R. Primary omental torsion in an old woman: Imaging techniques can prevent unnecessary surgical interventions. Case Rep Med 2011;2011:541324.
- Itenberg E, Mariadason J, Khersonsky J, et al. Modern management of omental torsion and omental infarction: A surgeon's perspective. J Surg Educ 2010;67:44-7. DOI: 10.1016/j.jsurg.2010.01.003

- Benaghmouch F, Aalala EM, Hrora A, et al. Acute abdomen for omental torsion. Eur J Radiol 2011;79:e55-7. DOI: 10.1016/j.ejrex. 2011.04.015
- Occhionorelli S, Zese M, Cappellari L, et al. Acute abdomen due to primary omental torsion and infarction. Case Rep Surg 2014;2014:208382. DOI: 10.1155/2014/208382
- Tsironis A, Zikos N, Bali C, et al. Acute abdomen due to primary omental torsion: Case report. J Emerg Med 2013;44:e45-8. DOI: 10.1016/j.jemermed.2011.06.066
- Scabini S, Rimini E, Massobrio A, et al. Primary omental torsion: A case report. World J Gastrointest Surg 2011;3:153-5. DOI: 10.4240/ wjgs.v3.i10.153
- Breunung N, Strauss P. A diagnostic challenge: Primary omental torsion and literatura review - A case report. World J Emerg Surg 2009;36:64-7. DOI: 10.1186/1749-7922-4-40
- Goti F, Hollmann R, Stieger R. Idiopathic segmental infarction of the greater omentum successfully treated by laparoscopy: Report of a case. Surg Today 2000;30:451-5. DOI: 10.1007/s005950050623
- Nubi A, McBride W, Stringel G. Primary omental infarct: Conservative vs. operative management in the era of ultrasound, computerized tomography, and laparoscopy. J Pediatr Surg 2009;44:953-6. DOI: 10.1016/j.jpedsurg.2009.01.032