Primary torsion of the omentum as a rare cause of acute abdomen in adults: report of a case

Ibrahim Barut, Omer Ridvan Tarhan, Celal Cerci, Hasan Dinelek, Mahmut Bulbul

Demirel University, School Of Medicine, Department of Surgery, Isparta, Turkey.

Özet

Erişkinde nadir bir akut karın sebebi olarak primer omentum torsiyonu: olgu sunumu

Primer omentum torsiyonu, özellikle klinik bulguların nonspesifik olduğu akut karın ağrısının ayırıcı tanısında düşünülmesi gereken nadir bir klinik tablodur. Akut karın ağrısına neden olan omentum torsiyonlu olgumuz literatür verileri ışığı altında sunulmaktadır. Her ne kadar bazı araştırmacılar tarafından konservatif tedavi yaklaşımının yeterli olacağı ileri sürülmüş olsa da primer torsiyonda oluşan iskemik omentumun eksizyonunun en ideal tedavi olacağı kanısındayız.

Anahtar kelimeler: Omentum torsiyonu, akut karın, erişkin yaş grubu

Abstract

Primary torsion of the omentum is a rare clinical entity that is seldom considered in the differential diagnosis for acute abdominal pain, especially as the clinical findings are so non-specific. The characteristic appearance of omental torsion and review of the literature with a case of primary omental torsion that was causing acute abdomen is presented. We believe that the excision of the ischemic omentum was curative treatment although some authors revealed the conservative management.

Key words: Omental torsion, acute abdomen, adult.

Introduction

Torsion of the omentum is rare but well recognized condition that was first described 100 years ago (1, 2). The usual clinical presentation is a patient with a single episode of acute abdominal pain of sudden onset (3, 4). A case of primary omental torsion that was causing acute abdomen is presented with a review of the literature.

Case Report

A 65 years old obese man presented with a 3-days history of progressive, constant umbilical and right upper quadrant pain. He had no nausea, vomiting or diarrhea and was not constitutionally unwell. He had leukocytosis but no fever. Bowel sounds was normal and there was tenderness on the hypochondrium and umbilical area with suspicious findings of peritonism. Apart from a small amount of free peritoneal fluid within the pelvis by ultrasound and computed tomography examination showed no abnormality. At surgery, there was an ischemic omentum which had undergone torsion with a moderate amount of haemoserous-free peritoneal fluid. The torsioned omentum was resected (See Fig 1). There was no vascular pedicle, internal hernia, adhesions or any other underlying cause for the omental torsion apparent at the time of surgery.

Histopathological examination of the omentum confirmed a hemorrhagic, infarcted omentum with acute inflammatory cell infiltrate.

The patient was discharged on 4th days postoperatively without any complication.

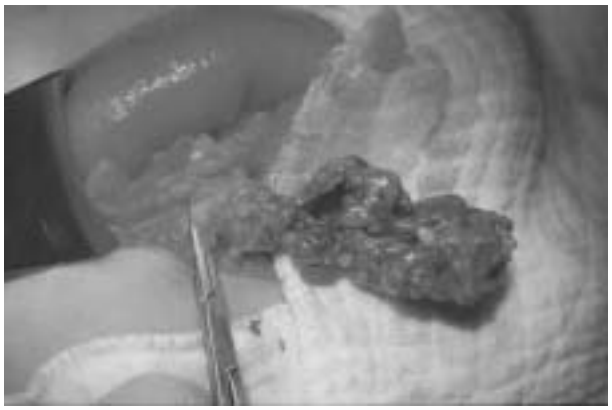
Discussion

Torsion of the omentum is condition in which the organ twists on its long axis to an extend causing vascular compromise (3, 4). It's classified as primary, in which no identified coexisting condition is assigned causation, and secondary, occurring in association with adhesions of the free end of the omentum (3, 4). Primary, or idiopathic, torsion of the omentum is an infrequently occurring condition (3). Unremitting torsion may result in ischemic necrosis of the compromised portion of omentum (4).

The causes of primary torsion into predisposing factors and precipitating factors are a variety of

Yazışma Adresi: Yrd. Doc. Dr. Ibrahim BARUT
SDU Tip Fakultesi Genel Cerrahi AD Ogretim Uyesi
32900 – ISPARTA / TURKIYE
Telephone: +90-246-2112223 Fax Number: +90-246-2234736
E-mail: ibarutt@hotmail.com

anatomic variations including tongue like projections from the free edge of the omentum, bifid omentum, accessory omentum, a large and bulky omentum with a narrow pedicle, and obesity associated with irregular distribution of the fat within the organ (3, 4). Venous redundancy relative to the omental arterial blood supply has also been cited as a predisposing factor (3). According to us the predisposing factor of our patient was obesity.



Figür 1: Ischemic omentum which had undergone torsion

Males are affected twice as often as females (2). There are several clinical peculiarities of primary omental torsion that have been established. Patients typically may present with acute abdominal pain and tenderness on physical examination (1-4). The pain localizes to the right lower quadrant in about 80% of the patients. Nausea and vomiting are also frequent symptoms. Leukocytosis occurs in half to two thirds cases (2, 4). There were leukocytosis and the findings of acute abdomen in our case. Pre-operative diagnosis of segmental infarction of the omentum is difficult because of its rarity and non-specific clinical features. But imaging findings of segmental omental infarction have been described only recently, so very few cases have been diagnosed preoperatively (1, 5, 6). Although Puylaert (7) and Karak (8) had reported some cases that were successfully managed conservatively without complication; the curative treatment consists of resection of the involved omentum (3, 4, 9-11). It may cause the complications that include adhesion formation and sepsis (including abscess formation) (1). The literature suggests the surgical procedures via open laparotomy or laparoscopy (7, 12, 13). But it's clear that the operative treatment is curative. We performed the resection to the ischemic omentum by open laparotomy in our patient.

In conclusion, segmental infarction due to primary torsion of the omentum is an unusual cause of acute abdominal pain in adults. We believe that the excision of the ischemic omentum was curative treatment although some authors revealed the conservative management.

References

1. Stella DL, Schelleman TG. Segmental infarction of the omentum secondary to torsion: ultrasound and computed tomography diagnosis. Australas Radiol 2000; 44(2):212-5.
2. Schwartzman GJ, Jacobs JE, Birnbaum BA. Omental infarction as a delayed complication of abdominal surgery. Clin Imaging 2001; 25(5):341-3.
3. Adams JT. Abdominal wall, omentum, mesentery, and retropertoneum. In Schwartz SI, Shires GT, Spencer FC, editors. Principles of Surgery. Volume 2, 6th edition. McGraw-Hill Inc; 1994. p 1488-9.
4. Knoll JA, Eckhauser FE. Hernia, mesentery, and retroperitoneum. In Greenfield LJ, Mulholland M, Oldham KT, Zelenock GB, Lillemoe KD, editors. Surgery: scientific principles and practice. 2nd. edition. Philadelphia: Lippincott-Raven; 1997. p 1241.
5. Naraynsingh V, Barrow R, Raju GC, Manmohansingh LU. Segmental infarction of the omentum: diagnosis by ultrasound. Postgrad Med J 1985; 61(717):651-2.
6. Ceuterick L, Baert AL, Marchal G, Kerremans R, Geboes K. CT diagnosis of primary torsion of greater omentum. J Comput Assist Tomogr 1987; 11(6):1083-4.
7. Puylaert JB. Right-sided segmental infarction of the omentum: clinical, US, and CT findings. Radiology 1992; 185(1):169-72.
8. Karak PK, Millmond SH, Neumann D, Yamase HT, Ramsby G. Omental infarction: report of three cases and review of the literature. Abdom Imaging 1998; 23(1):96-8.
9. Rich RH, Filler RM. Segmental infarction of the greater omentum: a cause of acute abdomen in childhood. Can J Surg 1983; 26(3):241-3.
10. Chew DK, Holgersen LO, Friedman D. Primary omental torsion in children. J Pediatr Surg 1995; 30(6):816-7.
11. Karayiannakis AJ, Polychronidis A, Chatzigianni E, Simopoulos C. Primary torsion of the greater omentum: report of a case. Surg Today 2002; 32(10):913-5.

12. Scobie BA. Gastrointestinal emergencies with marathon-type running: omental infarction with pancreatitis and liver failure with portal vein thrombosis. N Z Med J 1998; 111(1067):211-2.
13. Goti F, Hollmann R, Stieger R, Lange J. Idiopathic segmental infarction of the greater omentum successfully treated by laparoscopy: report of case. Surg Today 2000; 30(5):451-3.