

Omental Torsiyon: Karın ağrısının nadir bir nedeni *Omental Torsion: An Uncommon Cause Of Abdominal Pain*

Evvah KARAKILIÇ¹, Erhan AKPINAR², Nalan METİN AKSU¹, Doğan İŞCANLI¹,
Meltem AKKAŞ CAMKURT¹

1 Hacettepe Üniversitesi Tıp Fakültesi, Acil Tıp Ana Bilim Dalı, Ankara
2 Hacettepe Üniversitesi Tıp Fakültesi, Radyoloji Ana Bilim Dalı, Ankara

ABSTRACT

Background: Omental torsion is an uncommon cause of an acute abdomen. Most often it presents with sign and symptoms of acute appendicitis. We report this case to reveal the clinical presentation and computed tomography imagine findings of omental torsion as an uncommon cause of abdominal pain.

Case Report: A 45-year-old male presented to the emergency department complaining of right lower abdominal pain. There was no pathological sign except millimetric stones in the gall bladder and free fluid in the right lower quadrant in abdominal ultrasonography. Then computed tomography was performed and it showed omental whirl sign and increased density in great omentum consistent with omental torsion. Thus, a diagnosis of omental torsion was made immediately, which was confirmed by subsequent surgery.

Conclusion: Omental torsion is a rare cause of acute abdominal pain, but especially it will be remembered for patients with unclear symptoms and nonspecific abdominal pain.

Keywords: *Omental Torsion, CT Findings, Acute Abdomen.*

Received: 16.07.2010

Accepted : 23.08.2010

Yazışma Adresi/Corresponding to:

Dr. Evvah Karakılıç
Hacettepe Ü. Tıp F. Acil Tıp AD.
Sıhhiye 06100 Ankara - Türkiye
e-mail: evvah@hacettepe.edu.tr
Tel: 0 533 338 80 07

ÖZET

Giriş: Omental torsiyon akut karının nadir nedenlerinden biridir ve sıklıkla akut apandisit'in semptom ve bulguları ile kendini gösterir. Biz bu vakamızda karın ağrısının nadir bir nedeni olarak omental torsiyonun klinik prezentasyonunu ve Bilgisayarlı Tomografi görüntüleme bulgularını sunduk.

Olgu Sunumu: 45 yaşında erkek hasta sağ alt kadranda ağrısı ile Acil Servise başvurdu. Yapılan abdominal USG'de milimetrik safrakesesi taşları ve sağ alt kadranda serbest sıvı dışında patolojik bir bulguya rastlanmadı. Sonrasında çekilen abdominal Tomografide omental "whirl sign" (kendi etrafında dönme) bulgusu ve büyük omentumda torsiyon ile uyumlu dansite artışı tespit edildi. Bunun üzerine omental torsiyon tanısı konuldu ve ardından yapılan operasyonda da omental torsiyon varlığı tespit edildi.

Sonuç: Omental torsiyon karın ağrısının nadir bir nedenidir ancak açıklanamayan semptomlarla birlikte non-spesifik karın ağrısı olan hastalarda özellikle hatırlanması gerekir.

Anahtar Kelimeler: *Omental Torsiyon, BT bulguları, Akut karın.*

Alındığı Tarih: 16.07.2010

Kabul Tarihi : 23.08.2010

INTRODUCTION

Torsion of the greater omentum is a rare cause of acute abdomen in adults. In most cases, torsion occurs on the right side of great omentum and presents with sign and symptoms of acute appendicitis ^(1,2). Ultrasonography and computed tomography (CT) scanning may help to establish the diagnosis ^(2,3). We report a case of a surgically proved torsion of omentum presenting with abdominal pain in the right lower quadrant and specific CT findings. In our patient Omental whirl sign and increased omentum density were detected on CT images.

CASE REPORT

A 45-year-old man presented to the emergency department complaining of abdominal pain and nausea for 3 days. His medical history was unremarkable with no previous abdominal operations. Physical examination revealed fever of 38,2 °C, tenderness in the right lower quadrant and muscle guarding of the abdomen. The bowel sounds were normal. Blood examination showed leucocytosis (white blood cell count = 14 600/mm³) and hemoglobin was 14,3g/dL. The other blood tests were within normal limits. Abdominal plain x-ray and urine analysis showed no abnormality. Ultrasonography showed millimetric stones in the gall bladder and free fluid in the right lower quadrant of the abdomen. Then Contrast-enhanced abdominal tomography was performed to diagnose. CT showed Omental whirl sign and increased density in great omentum consistent with omental torsion (Figure 1). After general surgery consultation the patient was operated and the patient has remained healthy.

DISCUSSION

Omental torsion can be classified as primary or secondary. Primary omental torsion is rare and was first described by Eitel in 1899 ⁽⁴⁾. Primary omental torsion is much less common. Predisposing factors are anatomical malformations of the omentum such as bulky bifid or accessory omentum or abnormally redundant omental veins. Other associations have been made with obesity, because obese patients show irregular distribution of omental fat ^(3,5,6). Secondary torsion, occurring in association with intraabdominal pathologies, such as an internal or external hernias, adhesions, tumors or a focus of inflammation is more common ^(1,3). Precipitating factors of primary or secondary torsion are similar: sudden increase in intraabdominal pressure after heavy meals, heavy exertion, and change in body position, coughing or sneezing. These conditions may result in sudden displacement of the omentum which leads omental torsion ^(2,6). The clinical presentation of primary and secondary omental torsion is similar and occurs in the fourth and fifth decades, and more seen in males than females ⁽⁷⁾. Most of omental torsion occur on the right side of great omentum with right lower quadrant or right paraumbilical pain which is usually of sudden onset ^(6,7). Patients usually complain of nausea, vomiting, fever and abdominal pain. Because of these complains, acute appendicitis, cecal diverticulitis and acute cholecystitis may be thought for differential diagnosis ^(8,9). In our case the patient was in fourth decade, and presented to the Emergency department with right-sided abdominal pain and nausea.

Preoperative diagnosis of omental torsion is difficult. Ultrasound



Figure 1: Contrast-enhanced computed tomography showing the greater omentum with a local mass of fat density in a whirling pattern (arrow).

and CT may help to identify the omental abnormality ⁽⁹⁾. Sonographically, the classic presentation is that of a solid, noncompressible, painful, and moderately hyperechoic hyperattenuating mass in the vicinity of other normal abdominal structures or organs ⁽⁹⁾. CT findings, a well-circumscribed fatty inflammatory mass, surrounded by normal organs, circumscribed or covered by inflammatory peritoneum and containing hyperechoic streaks probably corresponding to fibrous bands and/or dilated thrombosed veins, are becoming more important to diagnose patients with omental torsion ⁽⁹⁾. The CT findings of a fatty mass in the omentum may also suggest other diagnosis like lipoma, liposarcoma, angiomyolipoma, teratoma, mesenteric lipodystrophy ⁽²⁾. The differential diagnosis of omental torsion from appendicitis and acute cholecystitis is made by identifying a normal appearing appendix and gallbladder by CT. Also, omental torsion is easily differentiated from diverticulitis by CT. On the contrary, ultrasonographic findings of our patient were evaluated as normal, the characteristic CT findings, and the preoperative diagnosis was consistent with the final operative picture. The recommended treatment is resection of the involved segment of the omentum. On the other hand literature presents few

cases on omental torsion that have successfully been managed conservatively, especially in patients without complications^(1,2,6).

CONCLUSION

Omental torsion is a rare cause of acute abdominal pain but should be included in the differential diagnoses of acute abdomen, especially for patients with unclear symptoms and nonspecific abdominal pain.

REFERENCES

1. Ho CL, Devriendt H. Idiopathic segmental infarction of right sided greater omentum. Case report and review of the literature. *Acta Chir Belg* 2004;104;4:459-61.
2. Aoun N, Haddad-Zebouni S, Slaba S. Left-sided omental torsion: CT appearance. *Eur Radiol* 2001;11;1:96-8.
3. Kerem M, Bedirli A, Menten BB, Sakrak O, Pala I, Oguz M. Torsion of the Greater Omentum: Preoperative Computed Tomographic Diagnosis and Therapeutic Laparoscopy. *JSLs* 2005;9: 494-6.
4. Kepertis C, Kountsoumis G. Primary torsion of the greater omentum. *Indian Pediatr* 2005;42: 613-4.
5. Epstein LI, Lempke RE. Primary idiopathic segmental infarction of the greater omentum: case report and collective review of the literature. *Ann Surg* 1968;167:437-43.
6. Kim J, Kim Y, Cho OK, Rhim H, Koh BH, Kim YS, et al. Omental torsion: CT features. *Abdom Imaging*. 2004;29:502-4.
7. Jeganathan R, Epanomeritakis E, Diamond T. Primary torsion of the omentum. *Ulster Med J*. 2002;71:76-7.
8. Sencan A, Arslan O, Yilmaz O, Ayhan S, Mir E. A rare cause of acute abdominal pain: primary torsion of omentum majus. *Turk J Gastroenterol* 2002;13:122-4.
9. Coulier B, Van Hoof M. Intraoperative fat focal infarction of the lesser omentum: case report. *Abdom Imaging* 2004;29:498-501.
10. Phillips BJ, Mazaheri MK, Matthews MR, Caruso DM, Fuji TK, Schiller WR. Imitation appendicitis: primary omental torsion. *Pediatr Emerg Care* 1999;15:271-3.