J Surg Med. 2018;2(3):350-352.
DOI: 10.28982/josam.408634

Journal of Surgery and Medicine
e-ISSN: 2602-2079

Mesenteric panniculitis: Case report

Mezenterik pannikülit: Olgu sunumu

Eddy Oleko Ekuke [1], Fatoumata Djouldé Diallo [2], El Bachir Benjelloun [1], Benajah Dafr-Allah [2]

[1] Department of Visceral Surgery, Hassan II University Hospital, Fez, Morocco
[2] Department of Gastroenterology and Hepatology, Hassan II University Hospital, Fez, Morocco

ORCID ID of the authors
EOE: 0000-0003-0381-4870
FDD: 0000-0003-0053-1920
EBB: 0000-0002-3176-6899
BD: 0000-0002-1815-1080

Abstract

Rare and poorly documented, mesenteric panniculitis (MP) is characterized by nonspecific inflammation affecting adipose tissue of the mesentery. Modern imaging, computed tomography and especially magnetic resonance imaging can be very useful in the workup thus reducing unnecessary laparotomy hitherto required for the positive diagnosis of this affection. Pathology examination still remains necessary as it eliminates key differentials notably liposarcoma. This could be achieved through imaging-guided biopsy. We hereby report a case of sclerosing mesenteritis in a 43 years old patient.

Keywords: Mesenteric panniculitis, Sclerosing mesenteritis

Öz

Nadir ve az belgelenmiş mezenterik pannikülit (MP), mezenterlerin yağ dokusunu etkileyen spesifik olmayan inflamasyon ile karakterizedir. Modern görüntüleme, bilgisayarlı tomografi ve özellikle manyetik rezonans görüntüleme, işte çok faydalı olabilir ve bu nedenle bu affinasyonun pozitif teşhisi için gerekli olan gereksiz laparotomiyi azaltır. Patoloji incelemesi, özellikle liposarkom başta olmak üzere önemli farklılıkları ortadan kaldırdığı için hala gereklidir. Bu, görüntüleme kılavuzluğunda biyopsi ile sağlanabilir. Bu yazıda, 43 yaşında bir hastada sklerozan mezenterit vakası sunulmuştur.

Anahtar kelimeler: Mezenterik pannikülit, Sklerozan mezenterit

Corresponding author / Sorumlu yazar:
Eddy Oleko Ekuke
Address / Adres: Department of Visceral Surgery, Hassan II University Hospital, Fez, Morocco
e-Mail: olekoekuke20121982@gmail.com

Informed Consent: The author stated that the written consent was obtained from the patient presented in the study.
Hasta Onamı: Yazar çalışmada sunulan hastadan yazılı onam alındığını ifade etmiştir.

Conflict of Interest: No conflict of interest was declared by the authors.
Çıkar Çatışması: Yazarlar çıkar çatışması bildirmemişlerdir.

Financial Disclosure: The authors declared that this study has received no financial support.
Finansal Destek: Yazarlar bu çalışma için finansal destek almadıklarını beyan etmişlerdir.

Received / Geliş tarihi: 22.03.2018
Accepted / Kabul tarihi: 26.04.2018
Published / Yayın tarihi: 26.04.2018

Introduction

Mesenteric panniculitis (MP) is a rare condition defined as an acute or subacute inflammation of the bowel mesentery characterized by fibrosis and peritoneal retraction as it progresses to chronicity hence the name sclerosing mesenteritis (SM) [1]. It is a non-specific inflammatory disorder of the adipose tissue of the mesentery. Before the advent of modern imaging technics, definite diagnosis was often achieved through laparotomy or incidentally made on pathology specimens. Thus we deem interesting to report a case of SM in a 43 year old male, for which diagnosis was suspected on imaging and confirmed by pathology findings.

Case presentation

Patient, 43-year-old male with no significant clinical history presented with moderate left upper quadrant pain accompanied by intermittent vomiting which worsened a few hours prior to his admission with incomplete bowel obstruction. Physical examination found a conscious patient, stable vitals, with a slightly distended abdomen, tympanitic with no palpable mass. Abdominal computed tomography (CT) showed several dilated bowel loops with thickening of the wall. There was a partially calcified tissue mass of the mesentery with localized fibrosis, responsible for retraction of the adjoining ileal loops. Well defined hypodense nodules were also found in segment IV and segment V of the liver that faded on contrast injection (Figure 1, 2). Magnetic resonance imaging (MRI) came back for sclerosing mesenteritis. The presence of bowel abnormalities in the form of sclerosing mesenteritis with localized GI wall thickening and calcifications should point to carcinoid tumor of the small intestine especially. The case was discussed at a multidisciplinary cancerology meeting were surgery was indicated.

How to cite / Atıf için: Ekuke EO, Diallo FD, Benjelloun EB, Dafr-Allah B. Mesenteric panniculitis: Case report. J Surg Med. 2018;2(3):350-352.

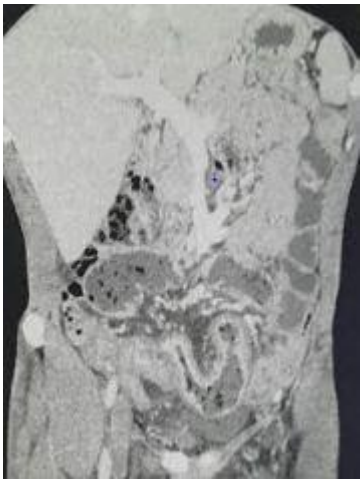

Figure 1: Abdominal computed tomography sagittal showing aspect of mesenteric panniculitis

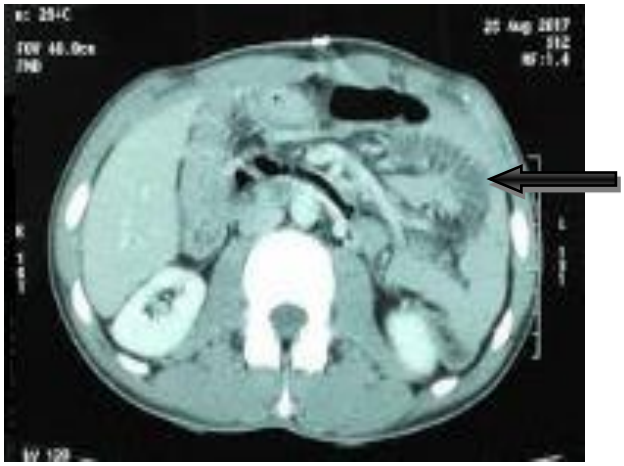

Figure 2: Abdominal computed tomography axial section showing aspect of mesenteric panniculitis

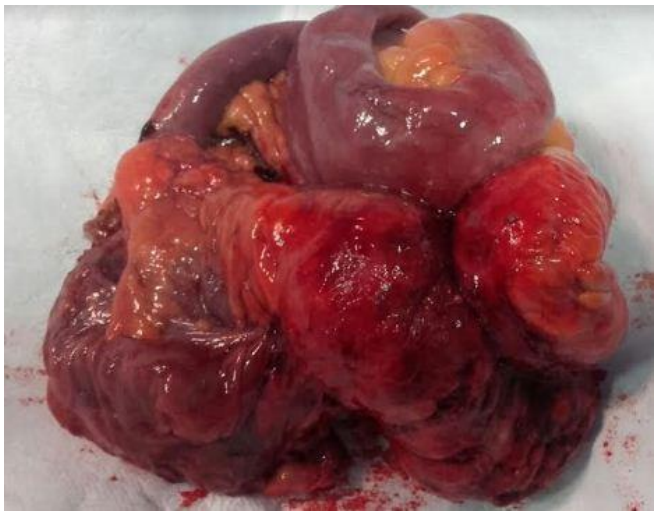

Figure 3: Operational view

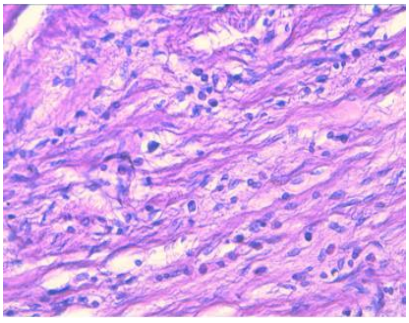

Figure 4: The histological image showing the proliferation of fibroblastic cells without atypiesfrays with an inflammatory infiltrate rich in plasmocytes (HESx400)

The patient underwent surgery with peroperative discovery of a mesenteric mass measuring about 10 cm in diameter invading the last ileal loop and coming into close contact with the bladder, mesosigmoid and even part of the sigmoid colon (Figure 3). An ileocecal resection taking up the mass was undertaken with subsequent mechanical ileo-colic latero-lateral anastomosis. Postoperative recovery was unremarkable. Pathology examination of surgical specimen came back for an inflammatory pseudo-tumor of the mesentery (Figure 4). The case was further discussed at the cancerology meeting in the light of the latest developments where monitoring was prescribed. The evolution was simple.

Discussion

SM is a rare disorder in adults first described in 1994 by Juraz. The highest prevalence is around sixth and seventh decade with a slight male predominance and a sex ratio of 1.8 / 1. In 1 out of 2 cases, it is asymptomatic and of fortuitous discovery. Pain is the main symptom, sometimes associated with gradual weight loss, diarrhea or vomiting or even present in a setting of incomplete bowel obstruction. Fever may also be observed [1,2]. It is characterized by variable associations of inflammatory lesions, necrosis and fibrosis of mesenteric fat tissue. Its pathogenesis remains unclear although associations with inflammatory and other neoplasms, in particular lymphomas have been suggested. The condition can remain asymptomatic in 30 to 50% of cases. In cases where the affection is symptomatic, abdominal pain (70%), an abdominal mass (40 to 70%) of variable location and rarely tender (33%) can usually be observed [3,4].

Asthenia and fever are almost constant in the latter stages of SM: constipation and bowel obstructions are usually observed. The general state is often altered. An abdominal mass can be observed [1]. The etiology of this condition remains unclear. Several predisposing factors have been mooted notably previous abdominal surgery [2,5] or trauma, retention of surgical equipment or bacterial infection. This benign condition may be associated with other diseases such as non-Hodgkin's lymphoma or Hodgkin's disease [5], yet the reason for this association is yet to be explained .Although the pathogenesis of mesenteric panniculitis remains unclear: the possibility of excessive enzymatic degradation due to an inherent a1-antitrypsin deficiency is largely considered as one of the major causes of panniculitis [6,7]. CT is often the first line imaging tool in the diagnosis and allows to rule out other differential diagnoses. CT is very relevant as it shows a marked attenuation of the adipose tissue of the mesentery which is a specific to SM. The fat density of the mesentery (-40 to -60 HU) is higher than that of the subcutaneous fat or normal peritoneal fat (-100 to -160 HU) [8]. CT features, as well as MRI findings, are not specific and thus exploratory laparotomy with multiple biopsies is sometimes required [2]. Modern imaging (CT and MRI) have been useful identifying macroscopic forms including multilocular pseudo cystic forms [6,8]. These are in fact nodular forms associated with partitioned fluid collections containing chylous liquid secondary to extrinsic compression of lymphatic vessels. MRI features vary according to the intensity of the inflammatory component [9,10]. As a general rule, it presents as mass with

intermediate signal on T1 and slightly hyper intense on T2, slightly enhanced after gadolinium injection. Dynamic sequences (FMPSPGR: Fast multiplanar spoiled gradient-recalled) in apnea cover the entire abdomen and allow the study of contrast medium enhancement. Sequences obtained after saturation of fat make it possible to better discern the links of the fat-like inflammatory pseudo-tumor of the mesentery with the surrounding adipose tissue. MP is characterized by multiple relapses with complete remission in more than 50% of cases. An association with lymphoma has been largely reported. In some cases, it may evolve towards SM with its associated complications among others bowel obstruction, superior mesenteric vein thrombosis, anasarca and / or cachexia. The clinical course of mesenteric panniculitis is often favorable. No treatment, surgery in particular, is generally necessary as the mass is indestructible. Symptoms regress, in most cases, without treatment but intermittent pain could sometimes persist [2]. Only one (01) case of fatal evolution with extensive acute necrosis has however been reported in recent literature [11] .The most common complications are extrinsic compression of the bowel lumen, especially the ileal loops by the mesenteric mass, lymphatic compression with formation of chylous ascites and cystic masses, vascular compression and in particular venous compression with thrombosis of the superior mesenteric vein and finally evolution towards sclerosing mesenteritis with formation of diffuse fibrosis. Corticosteroids are useful in subacute episodes whereas azathioprine is effective as maintenance therapy. A recent study reported favorable outcomes with thalidomide in early stages of PM [1]. Surgery is only deemed necessary in the event of complications. As SM lesions are often unresectable, surgical treatment is reserved for the treatment of obstructive or vascular complications and generally consists of digestive bypass with segmental resection.

Conclusion

Mesenteric panniculitis (MP), also known as sclerosing mesenteritis (SM), is a rare disease that causes thickening and shortening of the mesentery. Its etiology and pathogenesis remain unclear, although several predisposing factors and its associations with inflammatory and neoplasms, particularly lymphomatous, have been largely reported. Pain is the most commonly encountered clinical symptom, even though one out of every two cases is incidental and completely asymptomatic. CT and MRI currently allow positive diagnosis in the presence of suggestive yet non-specific signs. This condition poses a great diagnostic challenge to radiologist and surgeons at large as it constitutes a major differential with GI malignancies like liposarcoma in its lipogenic form which has similar imaging features on CT and MRI. Imaging guided percutaneous biopsy could be necessary in the workup of MP as it avoids invasive laparotomy. Surgery is sometimes useful in the management of complications such as acute bowel obstruction.

References

1. Gu G-L, Wang S-L, Wei X-M, Ren L, Li D-C, Zou F-X. Sclerosing mesenteritis as a rare cause of abdominal pain and intraabdominal mass: a cases report and review of the literature. Cases Journal. 2008;1:242.
2. MacVicar D, Husband JE, Taylor R, Menzies-Gow N, Cunningham D. Intra-abdominal panniculitis can mimic recurrent stomach carcinoma. Clinical Oncology. 1992;4:194-5.
3. Jerraya H, Khalfallah M, Nouira R, Dziri C. Mesenteric Panniculitis: An Unusual Cause of Epigastric Pain. Journal of Clinical and Diagnostic Research. 2015;9:PJ01.
4. Kipfer RE, Moertel CG, Dahlin DC. Mesenteric lipodystrophy. Annals of Internal Medicine. 1974;80:582-8.
5. Cooper CJ, Silverman PM, Forer L, Stull MA. Mesenteric panniculitis. American Journal of Roentgenology. 1990;154:1328-9.
6. Sauvaget F, Piette JC, Galezowski N, Jouanique C, Chapelon C, Blétry O, Herreman G, Godeau P. Polychondrite atrophiante et panniculite mésentérique : à propos de 2 cas. Rev Med Interne. 1993;14:253-6.
7. Daskalogiannaki M, Voloudaki A, Prassopoulos P, Magkanas E, Stefanaki K, Apostolaki E, et al. CT evaluation of mesenteric panniculitis: prevalence and associated diseases. American Journal of Roentgenology. 200;174:427–31.
8. Kawashima A, Fishman EK, Hruban RH, Kuhlman JE, Lee RP. Mesenteric panniculitis presenting as a multilocular cystic mesenteric mass: CT and MR evaluation. Clinical Imaging. 1993;17:112-6.
9. Badiola-Varela CM, Sussman SK, Glickstein MF. Mesenteric panniculitis: findings on CT, MRI, and angiography: Case report. Clinical Imaging. 1991;15:265-67.
10. Kakitsubata Y, Umemura Y, Kakitsubata S, Tamura S, Watanabe K, Abe Y, Hatakeyama K. CT and MRI manifestations of intraabdominal panniculitis. Clinical Imaging. 1993;17:186-8.
11. Andersen JA, Rasmussen NR, Pedersen JK. Mesenteric panniculitis: a fatal case. Am J Gastroenterol. 1982 Jul;77(7):523-5.