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Mesenteric Panniculitis: A Case Report

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ABSTRACT

Mesenteric panniculitis is a rare disorder characterized by a chronic nonspecific inflammation involving the adipose tissue of the bowel mesentery. The cause of the disease is unclear. Autoimmune response to unknown sources and ischaemia of the mesentery have been proposed as pathogenetic mechanisms. Whether mesenteric panniculitis occurs independently or in association with other disorders has been a subject of discussion. The disease has been related to a variety of conditions such vasculitis, granulomatous disease, rheumatic disease, trauma, previous abdominal surgeries, malignancies and pancreatitis. Here a case of this rare disorder is reported.

Keywords: Panniculitis, mesentery, misty mesentery, sclerosing mesenteritis, neoplastic

INTRODUCTION

Mesenteric panniculitis is a rare disorder characterized by a chronic nonspecific inflammation involving the adipose tissue of the bowel mesentery (1), (2). The disease has been related to a variety of conditions such vasculitis, granulomatous disease, rheumatic disease, trauma, previous abdominal surgeries, malignancies and pancreatitis (1), (2) (3).

Mesenteric panniculitis belongs to a continuum of idiopathic disorders of the mesentery and peritoneum referred to as ‘sclerosing mesenteritis’ (4). Possible relationship between mesenteric panniculitis and the presence of an underlying neoplastic disease is also a subject of study. The neoplastic diseases most often associated with mesenteric panniculitis is lymphoma, melanoma, colorectal cancer and prostatic cancer.

CASE REPORT

A 63-year-old male patient visited to internal medicine department of Suri Seri Begawan Hospital at Kuala Belait Brunei for regular follow up of chronic hepatitis. He presented with upper abdominal discomfort and mild weight loss. No history of nausea, vomiting. On examination there was tenderness at epigastric area, no guarding and bowel sounds were positive. An ultrasound of abdomen was done. A hyperechoic area was seen around aorta. He was advised a CT scan of abdomen to rule out lymphadenopathy / fatty tissue. CT scan finding was a focal ill-defined mesenteric fat stranding around the superior mesenteric vessels / "misty mesentery", with several small volume mesenteric nodes in the region, up to 0.7 cm short-axis diameter. The case was diagnosed as non-specific mesenteric fat stranding with mesenteric panniculitis as a differential.

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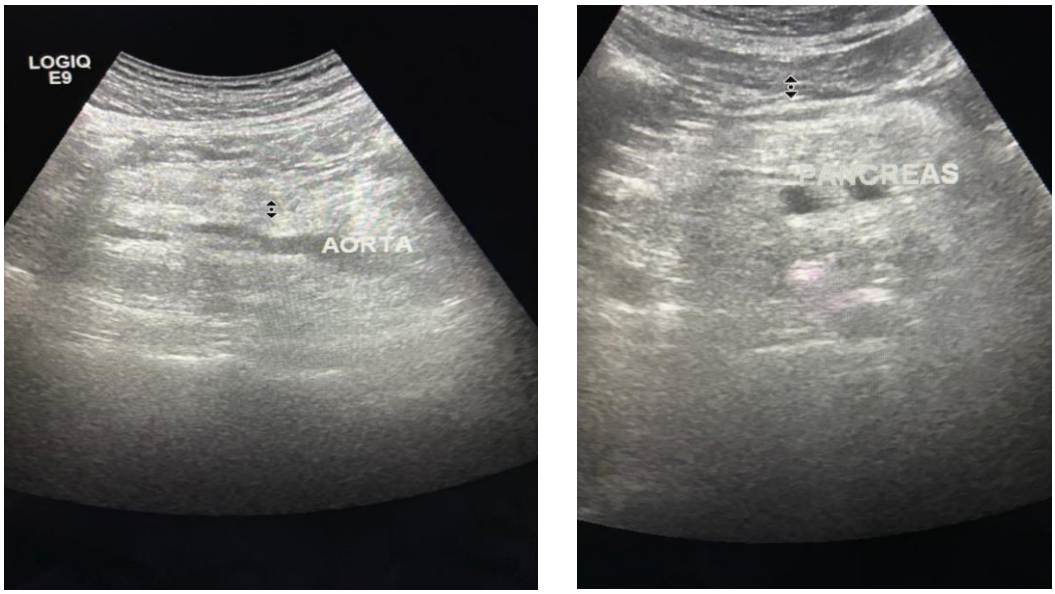

Figure A -USG scan

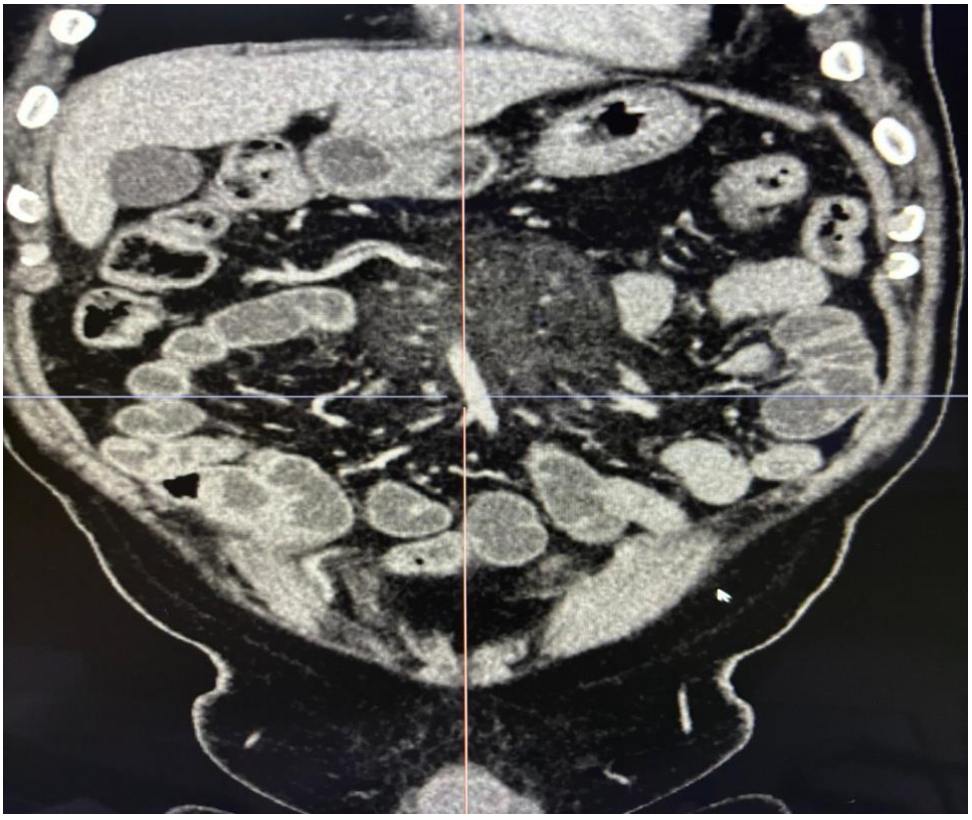

Figure B-Coronal CT scan

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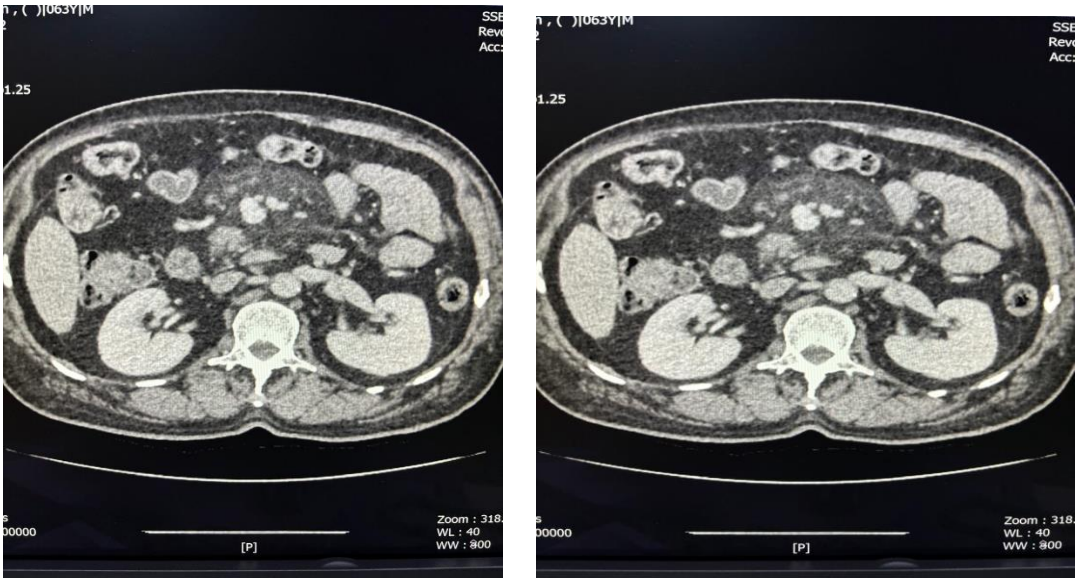

Figure C - Axial CT scan

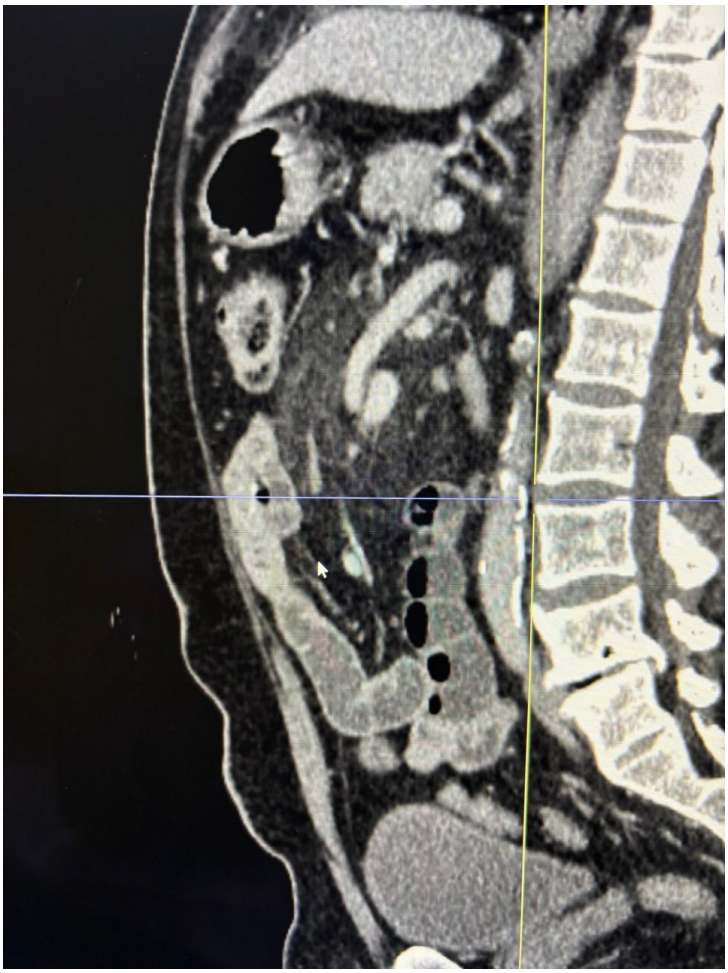

Figure D - Sagittal CT scan

DISCUSSION

Mesenteric panniculitis first reported in 1942 by Jura as retractile mesenteritis. The disease was renamed mesenteric panniculitis in 1960 by Ogden et al (5). The condition is diagnosed as an inflammatory disorder of the mesenteric root with two distinct pathological subgroups: mesenteric panniculitis and retractile mesenteritis. The differential diagnosis of these two conditions is based on histological criteria: fat necrosis predominated in mesenteric panniculitis whereas fibrosis and retraction predominate in retractile mesenteritis (6), (7). Some authors said there is no relationship or shifts between the two forms of the disease (6), (8). However, there is considerable amount of confusion between the two forms. Clinically silent and non-specific to both clinical and laboratory assessment. Mesenteric panniculitis is frequently diagnosed incidentally during computed tomography performed for a completely different indication. There are no well-established guidelines as how to manage and follow up mesenteric panniculitis. CT scan is the modality of choice for the diagnosis of mesenteric panniculitis, and appear as hyperattenuating mesenteric fat known as "Mistry mesentery", presence of subcentimeter lymph nodes in the mesenteric fat, fat hallow sign surrounding vessels and or nodules. Hyper attenuated mesenteric fat and subcentimeter lymph nodes are two most specific criteria for mesenteric panniculitis (6), (9). (10). On MRI a mesenteric mass is seen with intermediate signal intensity on T1- weighted images and with slightly higher signal intensity on T2-weighted images (11). Approximately 90% of cases involve the small bowel mesentery (12) and changes are more commonly concerned to the left of the midline corresponding with the jejunal mesentery (13). Mesenteric panniculitis more in men than women (ratio is 3.3 :1). The onset of mesenteric panniculitis generally occurs between the age of 50 and 70 years (14), (15).

There are no pathognomonic clinical signs for mesenteric panniculitis and the disease can be either entirely asymptomatic, or characterized by numerous non-specific symptoms, such as abdominal pain nausea, vomiting, episodes of diarrhoea or on the contrary constipation, anorexia, asthenia, fever, ascites and even pleural effusion (16) (17). The most frequent clinical sign is abdominal pain. There are no exact known causes, some predisposing factors are history of trauma and or abdominal surgery (16). Associated inflammatory disorders, such as vasculitis or chronic rheumatic fever have been reported.

CONCLUSION

Mesenteric panniculitis is a rare disorder even though it is now detected with increased frequency due to indispensable use of CT imaging as a tool for the diagnosing tumors and acute abdominal disorders. Although often entirely isolated, the synchronous association of mesenteric panniculitis with some neoplastic diseases, such as lymphoma, colorectal cancer etc. recent statistical study shows that in a certain number of situations mesenteric panniculitis should doubtlessly no longer be considered to be idiopathic. Upon incidental diagnosis of mesenteric panniculitis in a patient without known neoplastic disease, radiologist should take great care when analysing the patient's CT scans and look for signs of neoplastic disease.

Conflict of interest: None.

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