Case Report :

A Case Report of Idiopathic Mesenteric panniculitis in the Youngest Saudi Male

Refan A. Alwabel[1], Munira A. AlNasser[1], Meshal S. Alashgar[1], Saud M. Alsadoan[1], Resheed Alkhiari[2],

1. Qassim College of Medicine, Buraydah, Saudi Arabia.
2. Department of Internal Medicine, Qassim College of Medicine, Buraydah, Saudi Arabia.

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Corresponding Author:
Resheed Alkhiari, Qassim, Saudi Arabia,
Resheedalkhiari@qumed.edu.sa, 00966556965654.

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Abstract

Mesenteric panniculitis is a chronic disorder that belongs to a spectrum of rare diseases or tumor-like lesions that thickens and shortens the mesentery. There is no direct cause for mesenteric panniculitis, but it may be precipitated by some conditions such as malignancy, previous ab-dominal surgery, and infections. It has a male predominance with a 0.6% prevalence and a positive correlation with an increase in age. Mesenteric panniculitis has various stages depending on the pathological change present. The stage of mesenteric panniculitis governs the manifestations presented on the patient. However, it is often silent with no symptoms. 30-50% of patients will remain asymptomatic throughout the course of the disease and require no treatment, as the in-dication of treatment is developing symptoms. A computed tomography scan is the most sensitive method for the diagnosis of mesenteric panniculitis. On the other hand, histopathology is the most specific.

Out of all the reported cases, this is the youngest Saudi male that presented with idiopathic mesenteric panniculitis. A 25 year-old male presented to the emergency department with abdominal pain for two days. At presentation, he was on severe abdominal pain, afebrile, hemodynamically stable apart from mild tachycardia. Abdominal examination revealed significant tenderness at the epigastric and left upper abdomen. The patient was admitted and treated ac-cordingly. We hope this case could demonstrate the importance of careful assessment by the treating physician. Further studies about the most suitable treating regimen in such conditions of mesenteric panniculitis are needed, as it carries a risk for neoplastic changes.

Keywords:
Mesenteric panniculitis, Abdominal pain, Saudi Arabia.

Background:

Mesenteric panniculitis (MP) is a persistent long-standing disorder among a range of uncommon maladies or tumor-like lesions that provoke compression and thickening of the mesentery. It is characterized by the involvement of the inflammation, necrosis, or fibrosis process affecting the

adipose tissue of the bowel mesentery [1].

Case Report:

A 25-year-old Saudi male presented to the emergency department with severe abdominal pain for two days. At presentation, he was in a significant amount of abdominal pain, afebrile, hemodynamically stable apart from mild tachycardia. Abdominal examination showed significant tenderness with superficial palpation mainly at epigastric and left upper abdomen.

Initial laboratory investigations revealed a mild leukocytosis with predominant neutrophils. Normal lipase, liver, and kidney functions. Abdominal ultrasounds showed no significant pathology. Computed tomography (CT) abdomen/pelvis with contrast showed a focal area of mesenteric panniculitis seen at the left upper abdomen [Fig. 1].

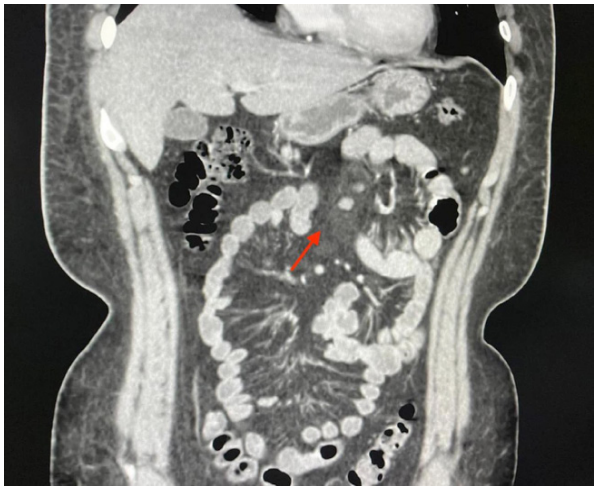


Fig. 1 CT abdomen/pelvis with contrast showed a focal area of mesenteric panniculitis seen at the left upper abdomen (red arrow).

The patient was then admitted and started intravenous fluids, morphine, in addition to oral prednisone 40 mg daily with a taper schedule every week by 5 mg. His pain has improved over 48 hours and was discharged home on day 3. Complete work-up including gastroscopy and colonoscopy with biopsies were normal.

The main diagnostic mark in MP is the increased density of the mesenteric fat tissues compared with retroperitoneal and subcutaneous fat. Other signs in a CT scan that can support the diagnosis include fat ring sign, tumoural pseudo-capsule, and small soft-tissue nodules. In this patient, the diagnosis was made based on clinical symptoms and the presence of classic CT findings that include[1] the increased density of the mesenteric fat tissues compared with retroperitoneal and subcutaneous fat and[2] the small soft tissue nodules.

Follow-up in the clinic in 1 and 2 months showed completed resolution of his symptoms apart from a relapse of symptoms that happened in two weeks following discharge and lasted 24 hours.

Discussion:

There is a variety of rare diseases or tumor like lesions that condense and shorten the mesentery, one of them is mesenteric panniculitis. It affects the small-bowel mesentery in more than 80% of the cases, yet sometimes it affects the sigmoid mes-

entery. However, in some cas-es, it influences the sigmoid mesentery. Besides, on uncommon occasions, it may implicate the mesocolon, omentum, retroperitoneum, peripancreatic locale, or the pelvis[1-2].

The disease, as demonstrated by numerous studies, is predominant in men, with a male/female proportion of 2-3:1, and numerous reports indicated that Caucasian men to be more commonly affected. Its prevalence is around 0.6%. Its incidence rises with the increase of age, most likely due to the few mesenteric contents of fats that children have compared to adults [1–3]. In Saudi Arabia, Meshikhes AW has reported a case of secondary MP in a 26-year-old Saudi male who presented with abdominal pain from the east region [4], which makes this is the first reported case of the youngest Saudi male with idiopathic MP in the central region.

The stage of the disease will determine the clinical presentations of the patient, but it is often asymptomatic and remains asymptomatic in 30 to 50% of cases[1].

When the patients are symptomatic, they may present with anorexia, nausea, vomiting, diarrhea, constipation, or weight loss, and most individuals commonly present with abdominal pain [5,6]. On some occasions, indistinct single or multiple palpable abdominal masses can be revealed during physical examination[7].

Further presentations include features of Crohn's disease, fever of unknown origin, chylous ascites, Schonlein–Henoch disease, and multiple mesenteric lymphatic cysts[7].

Among a broad diversity of manifestations, differential diagnosis comprises a great number of diseases; hence, careful and prompt assessment is strongly advised by the treating practitioner[8].

The cause of MP is unknown and may be due to some other conditions such as malignancy, previous abdominal surgery, autoimmune diseases, infections, and gall stones[3].

The best modality for the diagnosis of MP is abdominal CT, as it is the most sensitive. However, the specificity of CT is limited due to the extensive differential diagnosis of the lesion[3]. Sonography is not specific but may aid in diagnosing MP[3].

The diagnosis of MP is always established by histopathology[1].

The main pathological change will determine the phase, as there are three subsequent phases; 1st phase fat necrosis (mesenteric lipodystrophy type), 2nd phase dense inflammatory infiltrate with necrosis (MP type), last phase fibrosis (sclerosing mesenteritis type)[9].

The most observed and documented cases on MP showed regression of the disease without medical treatment; nevertheless,

there are a rational number of MP patients who developed neoplastic change. However, if the patient diagnosed with MP presented with symptoms, medical management here is indicated whether if they developed fibrosis or not[3,5,8]. Examples of treatment agents that are documented to be effective in case reports in symptomatic patients are steroids, colchicine, nonsteroidal anti-inflammatory drugs (NSAID), antibiotics, cyclophosphamide, tamoxifen, azathioprine, and radiotherapy. Yet, there are lack of unity on treatment regimen and significant clinical trial to identify the efficacy of frequent agents that are used [1,6,10].

Conclusion:

Even though MP presents with various different manifestations, which mimic a great number of diseases it has a fortunate and benign sequel, nevertheless, there are a rational number of MP patients who developed neoplastic change. This demonstrates the importance of careful assessment by the treating physician in patients suffering from MP. However, there is a lack of both unities on treatment regimen and significant clinical trial to identify the efficacy of frequent agents that are used. Further studies about the most suitable treatment regimen in such conditions are needed.

Conflict of Interest

The authors declare that there is no conflict of interest.

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