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Mesenteric Panniculitis: A Very Rare Cause of Abdominal Pain

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Abstract

Mesenteric panniculitis is an extremely rare cause of acute abdominal pain. We present a case from Eastern India, which presented with abdominal pain and features of intestinal obstruction. The radiological features have also been described at length.

Key words: Panniculitis; fat halo; prednisolone; IgG4 disease.

Introduction

Abdominal pain is the one of the commonest symptoms faced by physicians in daily clinical practice[1]. While most of them respond to symptomatic management, a substantial portion eludes diagnosis even after the primary care visit[1]. Most cases of abdominal pain can be diagnosed by simple clinical examination; but there are a few instances when initial clinical signs may not be enough for diagnosis and further investigations may be needed. Delay in diagnosis in these cases may lead to a worse prognosis. Thus, clinicians dealing with a case of refractory abdominal pain must take recourse to appropriate diagnostic studies as early as possible. We present an extremely rare case of abdominal pain, which baffled clinicians initially, and the final diagnosis was only clinched after appropriate imaging studies.

Case report

A 60-year-old male patient came to the OPD with sudden onset of abdominal pain and swelling for one day. He had a low-grade continuous fever and a few episodes of vomiting. He also complained of not passing stool for two days. The patient was at first symptomatically managed and rectal enema was advised. He was sent back home. But he came back to the ER the same night with severe holo-abdominal pain. Assuming this to be a case of intestinal obstruction, the patient was put on Ryle's tube drainage and oral feeding was stopped. Palpation of abdomen revealed an ill-defined partly mobile tender mass around the umbilicus. Per-rectal examination revealed rectal ballooning. A straight X-ray of abdomen revealed (Fig. 1) colon loaded with stool, but no evidence of gas-fluid levels. Laboratory tests revealed total leukocyte count of 21,000/cmm with 80% neutrophils. Serum electrolytes were normal, as were the amylase and lipase levels. Finally, a CECT of abdomen was done (both oral and i.v. contrast), which showed (Fig. 2) ground glass attenuation with fat stranding of mesentery, suggestive of Mesenteric Panniculitis. Other laboratory tests were normal. Anti-nuclear factor was negative and serum IgG4 level was 0.55 g/l (N: 0.3 - 2).

The patient was immediately started on i.v. hydrocortisone 100 mg thrice daily for five days, followed by oral prednisolone 40 mg daily. After starting the i.v. steroid, his abdominal pain came down quickly. With this and other symptomatic management including repeated enema, the symptom of bowel obstruction was also relieved. He was discharged home on oral steroids.

Initially, at home, he could not tolerate any solid food and any heavy meal led to relapse of the pain. Thus, at first, he was put on liquid only diet. However, after three weeks, with continuing oral steroids, his diet slowly became normal. Bowel movement was also regularised.

Discussion

Mesenteric panniculitis is an extremely rare cause of

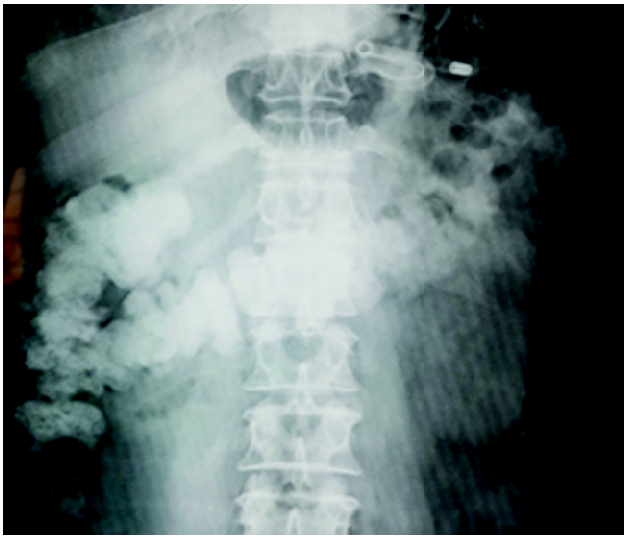

Fig. 1: *Straight X-ray abdomen, showing colon loaded with stool.*

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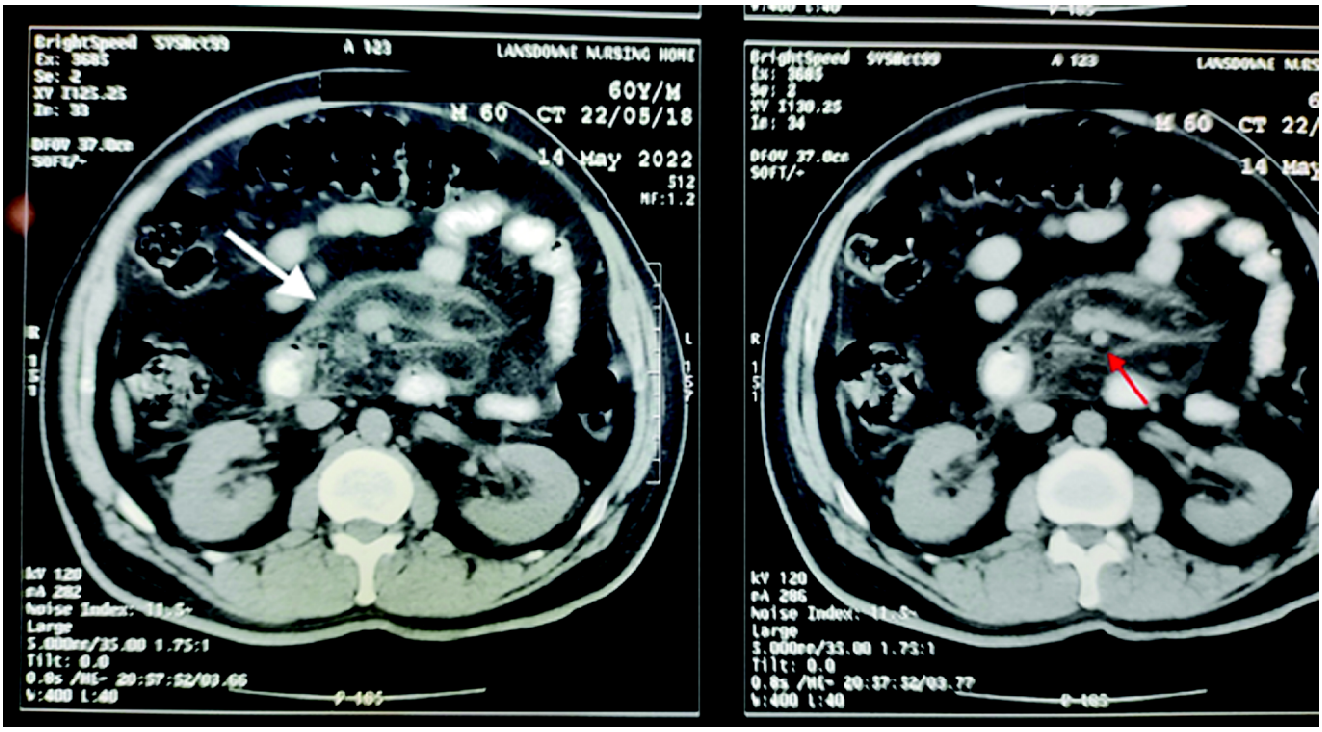

Fig. 2: *CECT Abdomen, showing panniculitis with ground glass attenuation of mesentery (misty mesentery) with fat stranding, giving appearance of a pseudo-mass (White arrow); also seen (Red arrow) fat halo sign around mesenteric vessels.*

abdominal pain, with 100-odd cases reported in the English literature till now. It is caused by acute inflammation of adipose tissue of the mesentery[2]. This inflammation may sometimes lead to fat necrosis and later, fibrosis of the mesentery[2]. Besides mesenteric panniculitis, the other synonyms are mesenteric lipodystrophy, retractile mesenteritis and mesenteric Weber-Christian disease. The disease is more common in males and the incidence increases with age[2].

The condition being extremely rare, its exact aetiology and pathophysiology are unknown. Historical evidence has shown the condition to be mostly idiopathic and only sometimes associated with a variety of factors like bile leakage, pancreatitis, retained sutures inside abdomen, autoimmune disease or avitaminosis[2,3]. Some studies have also linked the condition with tobacco consumption[4]. But the pathogenic mechanism behind mesenteric panniculitis in these cases is still elusive. In our case, the patient had none of the "risk factor"s that have been historically linked with this condition and he was not a tobacco user.

It is almost impossible to diagnose mesenteric panniculitis clinically and initial presenting features are often non-specific[5]. Like our case, diffuse abdominal pain is the commonest symptom and constipation and diarrhoea both may be found[5]. Laboratory results are also not helpful in most cases[5]. CECT abdomen is the most helpful in diagnosis. It shows ill-defined mesenteric mass-like lesion with surrounding misty attenuation. The traversing mesenteric vessels typically are spared and have a "fat halo".

The condition usually responds to oral immunosuppressives as in our case. Steroids are the first line drugs but others like Azathioprine, Colchicine, etc., are also used.

We present this case to sensitize clinicians to this extremely rare cause of abdominal pain. Proper interpretation of the abdominal imaging findings can help in early diagnosis.

References

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