

# Mesenteric Panniculitis: An Unusual Cause of Epigastric Pain

HICHEM JERRAYA<sup>1</sup>, MEHDI KHALFALLAH<sup>2</sup>, RAMZI NOUIRA<sup>3</sup>, CHADLI DZIRI<sup>4</sup>

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A 63-year-old man with history of diabetes, arterial hypertension and duodenal ulcer treated medically seven years ago, complained of epigastric pain which arose suddenly, five days before admission, with mid-back radiation. This abdominal pain was not associated with fever or vomiting. The physical examination found a temperature at 37.5°C and tenderness in the periumbilical and the epigastric area. Laboratory tests showed normal range of white blood cell count (5140/mm<sup>3</sup>) and slightly high rate of C-reactive protein (46 mg/L). The haemoglobin level was 97 g/L and the serum lipase levels were 1.5 times upper limit of normal. Abdominal ultrasound showed uncomplicated gallstones and a normal aspect of the pancreatic head. Upper gastrointestinal endoscopy revealed multiple superficial ulcerations of small sizes at the initial portion of the duodenum. Abdominal computed tomography (CT) showed densification of the mesenteric fat which was well limited and which extended from the root of the mesentery to the periumbilical region with preservation of normal fat density around the mesenteric vessels [Table/Fig-1]. The pancreas appeared normal. These CT findings were compatible with mesenteric panniculitis.

Laparoscopic cholecystectomy was performed. Intraoperatively, the root of the mesentery had a thickened and fibrous appearance [Table/Fig-2]. Mesenteric biopsy was performed. The postoperative course was uneventful. Microscopic examination showed chronic inflammation and mesenteric fat necrosis.

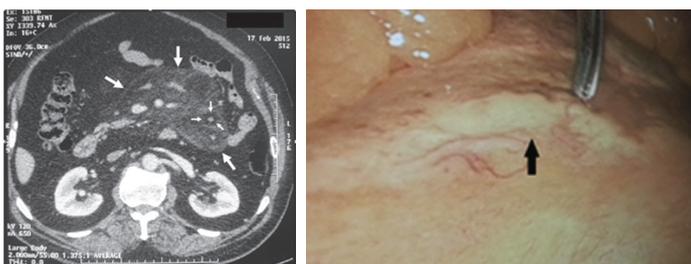
Mesenteric panniculitis is a nonspecific inflammatory process affecting the fatty tissue at the root of the mesentery [1]. The exact aetiology remains unknown [2]. Most patients do not show symptoms. Elsewhere, the most commonly seen symptoms are abdominal pain, which is usually localized in the central region or on the upper quadrants, and abdominal mass [3]. The diagnosis is more often suspected on the basis of CT findings [4]. The regional increase in mesenteric fat density or 'misty mesentery' [4] is a non-specific feature on abdominal CT which can be due to the infiltration of the mesentery by fluid or fibrous tissue. It can also be due to infiltration by inflammatory cells as in acute pancreatitis or by neoplastic cells (lymphoma and primary mesenteric neoplasma) [4]. Typical imaging signs which led to diagnosis in this case included a left-sided distribution [2], the 'fat halo' sign [4] which refers to the preservation of normal fat density around the mesenteric vessels and the 'tumoural pseudocapsule' sign [4] which refers to a peripheral band limiting the mesenteric mass.

The abdominal CT strongly suggests the diagnosis, but confirmation is made by the histological examination which excludes an underlying infection or malignancy [1]. Only symptomatic patients may be treated by corticosteroids or immunosuppressive agents but spontaneous regression of symptoms is possible [1].

In conclusion, mesenteric panniculitis is a rare disease that can simulate an acute abdomen. The medical practitioner should consider this diagnosis and recognize specific signs on abdominal CT especially since the treatment are usually nonsurgical.

## REFERENCES

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**[Table/Fig-1]:** Abdominal CT image showing well limited densification of the mesenteric fat or 'misty mesentery' (bold white arrows), with preservation of normal fat density around the mesenteric vessels or 'fat halo' sign (thin white arrows)

**[Table/Fig-2]:** Intraoperative findings showing the thickened and fibrous appearance of the root of mesentery (black arrow)



### PARTICULARS OF CONTRIBUTORS:

1. Faculty of Medicine, Department "B" of General Surgery, Charles Nicolle Hospital, Boulevard du 9 Avril, 1006 Tunis, Tunisia.
2. Faculty of Medicine, Department "B" of General Surgery, Charles Nicolle Hospital, Boulevard du 9 Avril, 1006 Tunis, Tunisia.
3. Faculty of Medicine, Department "B" of General Surgery, Charles Nicolle Hospital, Boulevard du 9 Avril, 1006 Tunis, Tunisia.
4. Faculty of Medicine, Department "B" of General Surgery, Charles Nicolle Hospital, Boulevard du 9 Avril, 1006 Tunis, Tunisia.

### NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Hichem Jerraya,  
Department "B" of General Surgery, Charles Nicolle Hospital, Boulevard du 9 Avril, 1006 Tunis, Tunisia.  
E-mail: jerrayahichem@gmail.com

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