ANSWER TO PHOTO QUIZ (PAGE 136)

ABDOMINAL PAIN: DIAGNOSIS BASED ON SPECIFIC CT FINDINGS

DISCUSSION

The abdominal computed tomography (CT) showed increased attenuation of the mesenteric fat – called misty mesentery – with some soft tissue nodules. A misty mesentery is a sign of mesenteric infiltration. This is seen in mesenteric panniculitis, a non-specific inflammatory disorder of the mesenteric fat, which can be either acute or chronic. Mesenteric panniculitis can lead to fat necrosis, fibrosis and retraction of the mesentery. Sclerosing mesenteritis and mesenteric lipodystrophy are synonyms of mesenteric panniculitis.^{1,2}

The prevalence of mesenteric panniculitis is 0.6-2.5%, with a male predominance and increasing incidence in the 6th and 7th decade of life.1-3 Aetiology and pathogenesis are unknown. It may occur independently, but an association with malignancy, autoimmune disease, abdominal surgery or trauma has been suggested.2,3 Most patients present with aspecific abdominal pain (78%). Other presenting symptoms are fever (26%), weight loss (23%), diarrhoea (19%) or vomiting (18%).1 It can also be asymptomatic (10%).1 On physical examination abdominal tenderness (38%) or an abdominal mass (34%) may be present.¹ Laboratory tests may show slightly elevated CRP, leucocytosis or anaemia, but in most cases laboratory tests are unremarkable. Differential diagnosis can include abdominal malignancies such as lymphoma or colorectal carcinoma, or inflammatory processes such as appendicitis, diverticulitis, cholecystitis or pancreatitis.3 In most cases, diagnosis is based on abdominal CT. In addition to the misty mesentery, there are two more characteristic abnormalities in mesenteric panniculitis. CT can show a fat ring sign (75-85%), a halo of fat surrounding the mesenteric vessels and nodules, or

tumoral pseudocapsule (50-59%), a dense stripe of soft tissue attenuation separating the inflamed mesenteric mass from surrounding normal folds (*figures 1 and 2*).^{1,2} However, these findings are not pathognomonic for mesenteric panniculitis. Histopathology is still considered to be the gold standard, but in patients with mild symptoms and a strong suspicion based on clinical presentation and CT findings, a biopsy should be avoided.⁴ Mesenteric panniculitis is mostly self-limiting and the mainstay of treatment is supportive. A wide range of medicines including steroids, colchicine, tamoxifen and antibiotics have been tried, but none have been scientifically proven.^{1,2,4} Surgery is indicated in cases with extensive fibrosis and bowel obstruction.²

Complications occur in approximately one in five patients. The most common are bowel obstruction, ileus and ischaemia. Approximately 80% of patients have complete resolution of symptoms and CT findings within one year. The abdominal pain of our patient decreased during his two day stay in hospital. Follow-up abdominal CT after three months still showed mesenteric panniculitis, but the size of the soft tissue nodules had decreased. The patient did not have any symptoms and his weight was stable.

REFERENCES

- Sharma P, Yadav S, Needham CM, et al. Sclerosing mesenteritis: a systematic review of 192 cases. Clin J Gastroenterol. 2017;10:103-11.
- Hussein MRA, Abdelwahed SR. Mesenteric panniculitis: an update. Expert Rev Gastroenterol. Hepatol. 2015;9:67-78.
- Van Putte-Katier N, van Bommel EFH, Elgersma OE, et al. Mesenteric panniculitis: prevalence, clinicoradiological presentation and 5-year follow-up. Br J Radiol. 2014;87:20140451.
- Robbrecht DGJ, Alidjan F, Eikemans B, et al. Panniculitis mesenterica: uiteenlopende presentaties. Ned Tijdschr Geneeskd. 2012;156:A4555.