

Clinical diagnosis

Case 337

3. Sclerosing mesenteritis

[Progress]

He was given non-steroid anti-inflammatory drugs and antibiotics for several days, relieving pain.

[Discussion]

First, the imaging diagnosis of this case on abdomen CT was made acute pancreatitis based on fluid retention surrounding pancreas, suggesting contrast-enhanced CT for grading of pancreatitis. Surprisingly, second, laboratory test revealed the values of amylase and lipase which usually elevate in pancreatitis, were within normal limits. Following day, contrast-enhanced CT depict pancreas with homogeneous enhancement, indicating no damage of pancreas parenchyma. As a result, inflammation of transverse mesocolon reaches to pancreas, mimicking peripancreatic fluid, inducing misdiagnosis of pancreatitis. Collection of fluid from pancreatitis should accumulate into retroperitoneal space. In this case, however, infiltration of inflammation mainly stays in transverse mesocolon which be identified by enclosing middle colic artery. Sclerosing mesenteritis occurred in transverse mesocolon, although pathogenesis of sclerosing mesenteritis was unclarified.

Sclerosing mesenteritis is characteristic of edematous swollen mesentery and small swollen lymph-nodes. There are four mesenteries: small intestine mesentery, transverse mesocolon, sigmoid mesocolon and appendix mesocolon. Of these, sclerosing mesenteritis occurs most in small intestine mesentery from my experience (1-3). The symptoms of sclerosing mesenteritis vary from abdominal pain, nausea, vomiting weight loss, appetite loss and fever (1-4). However, the half of patients with sclerosing mesenteritis experience no symptoms: they are found accidentally on CT (4).

Sclerosing mesenteritis is expressed using other names such as mesentery panniculitis, retractile mesenteritis, mesenteric dystrophy, Weber-Cristian disease, and mesenteric fibrosis (4). These calling names are based on histologic findings of fibrosis, chronic inflammation, and lipid necrosis. These varied names are dependent upon quantity of histologic findings. The most used name is sclerosing mesenteritis or mesenteric panniculitis (4).

The pathogenesis of mesenteric panniculitis is still unknown, although reported to be mesenteric lymphadenitis, lymph circulation disorder, IgG4 related immune disease, or trauma/laparoscopy, tumor related symptoms, and idiopathic (1-4).

Radiologic findings of mesenteric panniculitis are not difficult: ground glass opacity on mesentery called misty mesentery, fat ring sign that indicates fat surrounding mesentery vessel, and tumoral pseudo-capsular sign (5, 6). In our case, misty mesentery and fat ring sign are demonstrated on abdomen CT.

Laboratory test is reported that CRP elevates but other inflammatory indicators do not always elevate. In our case, CRP and white blood cell counts elevated. As clinical medicines, NSAIDS (nonsteroid anti-inflammatory drugs) are usually given. Antibiotics are administrated in case of neutrophils count elevation.

[Summary]

We presented a seventy-four-year-old male transported with emergency for left sided abdominal pain. Abdomen CT depicted small fluid surrounding pancreas mimicking pancreatitis. Laboratory test revealed elevation of white blood cells and CRP value but no elevation of both amylase and lipase. Finally, clinical diagnosis was made as sclerosing mesenteritis (mesenteric panniculitis) originated from transverse mesocolon. It is borne in mind that transverse mesocolon is continuous to greater omentum, and then, after it enclose transverse colon, it fixes at the posterior abdominal wall adjacent to pancreas head and duodenum. It carries middle colic artery, veins, lymphatic vessels and nerves. Transverse mesocolon can be identified by finding out middle colic arteries and veins especially on contrast-enhanced coronal images.

[References]

1. Puttke-Keiner N, et al. Mesenteric panniculitis: prevalence, clinicoradiological presentation and 5-year follow-up. *Br J Radiol.* 2014 Dec;87(1044):20140451. doi: 10.1259/bjr.20140451.
2. Emory TS, et al. Sclerosing mesenteritis, mesenteric panniculitis and mesenteric lipodystrophy: a single entity? *Am J Surg Pathol* 1997;21:392-8. 10.1097/00000478-199704000-00004
3. Sharma P, Yadav S, Needham CM, et al. Sclerosing mesenteritis: a systematic review of 192 cases. *Clin J Gastroenterol* 2017;10:103-11. 10.1007/s12328-017-0716-5
4. Green MS, et al. Sclerosing mesenteritis: a comprehensive clinical review. *Ann Transl Med.* 2018 Sep; 6(17): 336. doi: 10.21037/atm.2018.07.01
5. Horton KM, et al. CT findings in sclerosing mesenteritis (panniculitis): spectrum of disease. *Radiographics.* 23 (6): 1561-7. doi:10.1148/rg.1103035010 - Pubmed citation
6. Daskalogiannaki M, et al. CT evaluation of mesenteric panniculitis: prevalence and associated diseases. *AJR Am J Roentgenol.* 2000;174 (2): 427-31.

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