Fat Necrosis, Fibrosis, Chronic Inflammation, Abdominal Pain, and a Small Bowel Mass in a 65-Year-Old Man

by Wycliffe Okumu, C. Max Schmidt, Julia K. LeBlanc

CASE REPORT

A 65-year-old white man with a past medical history significant for hypertension, non-insulin-dependent diabetes, hypercholesterolemia, and coronary artery disease presented with diffuse intermittent abdominal pain. He denied: weight loss, fever, chills, nausea, vomiting, and diarrhea. He was previously a smoker (80 pack-years) and used alcohol. His family history was noncontributory. His physical examination was remarkable for an obese abdomen without palpable masses. Blood work was unremarkable. An abdominal CT scan revealed an irregular, spiculated, partially calcified soft tissue mass in the small bowel mesentery measuring 3.5 × 3.0 cm in cross section and retroperitoneal lymphadenopathy. The mass was caudal to and contiguous with the pancreatic head and neck and appeared to involve the distal tip of the appendix (Figure 1 and 2). Adenopathy was present adjacent to the tumor measuring 2.6 × 1.3 cm in size. Carcinoid tumor was suspected.

Colonoscopy and upper endoscopy were unremarkable. Endoscopic ultrasound guided fine needle aspiration (EUS-FNA) of the retroperitoneal lymph nodes revealed benign lymphoid cells. He underwent CT-guided biopsies of the mass which revealed varying foci of fat necrosis, fibrosis, chronic inflammatory infiltrates, and foamy macrophages. He then underwent exploratory laparotomy and biopsy which revealed features consistent with sclerosing mesenteritis (Figure 3a and 3b). The tumor could not be resected.

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DISCUSSION

Sclerosing mesenteritis is a rare idiopathic and often benign condition characterized by fat necrosis, fibrosis, and chronic inflammation involving the mesentery (1,9). It has been associated with autoimmunity, mesenteric ischemia, malignancy, lymphoma, and abdominal trauma (15). Sclerosing mesenteritis is a condition that poses a diagnostic challenge for clinicians as it is frequently mistaken for malignancy (18).

Sclerosing mesenteritis was first described by Jura in 1924 (9). It has an unusual tumor-like expansion of the mesentery and is pathologically characterized by varying degrees of chronic inflammation, fat necrosis and fibrosing. Hence, there have been various names used to describe this condition that denote the natural history of the disease, which include mesenteric panniculitis, retractile mesenteritis, and mesenteric lipodystrophy. In the early stages of sclerosing mesenteritis, fat necrosis is predominant with little or no fibrosis. Some authors have called this mesenteric lipodystrophy (10). After the fat necrosis subsides, chronic inflammation may become predominant, and it is then referred to as mesenteric panniculitis. In the final stages when fibrosis predominates it is referred to

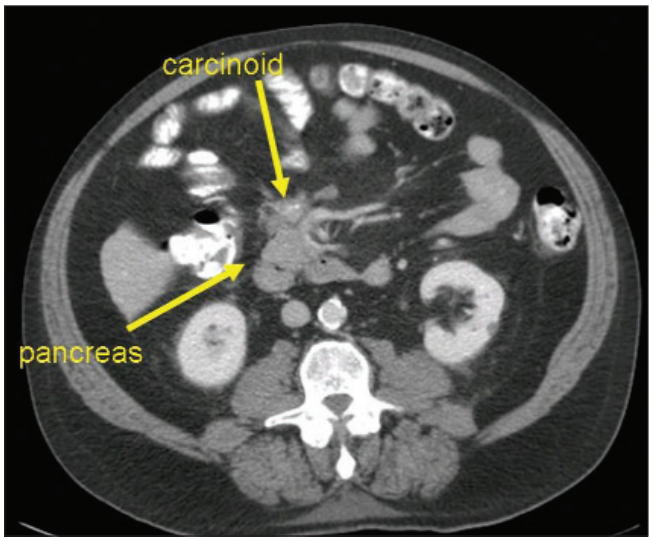


Figure 1. T scan of the abdomen demonstrating an irregular mass-like area adjacent to the pancreas presumed to be carcinoid tumor.

as retractile mesenteritis. Thus, these histological patterns denote a spectrum of a single disease, sclerosing mesenteritis (5).

Patients usually present in the fifth and seventh decades of life and there is a slightly higher prevalence in men with a male to female ratio of 2:1 (3,15,18). There is a higher frequency among Caucasians as compared to African-Americans with a ratio of 7–8:1 (5,15). The symptoms may be intermittent or nonspecific and are a result of inflammation or mass effect

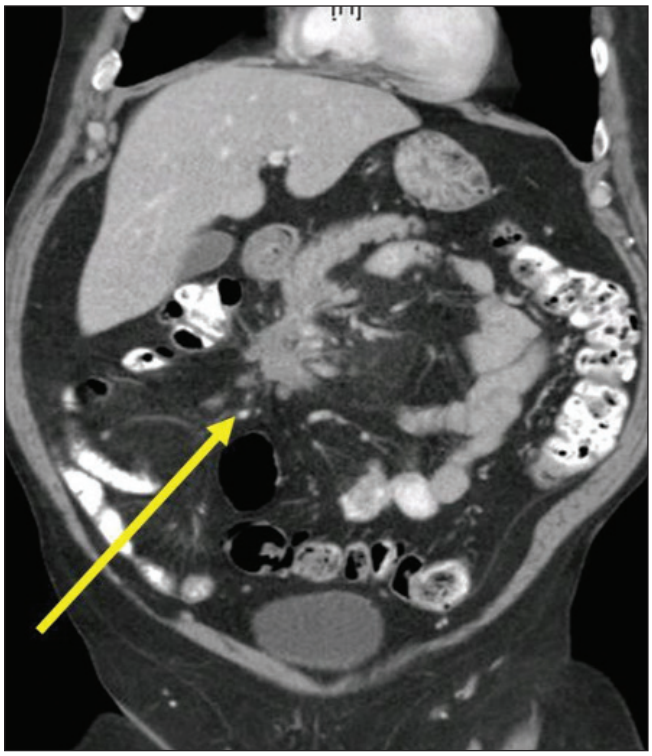
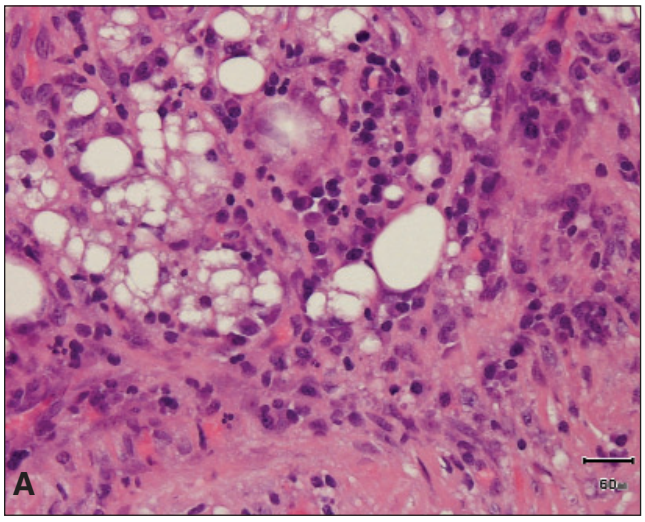
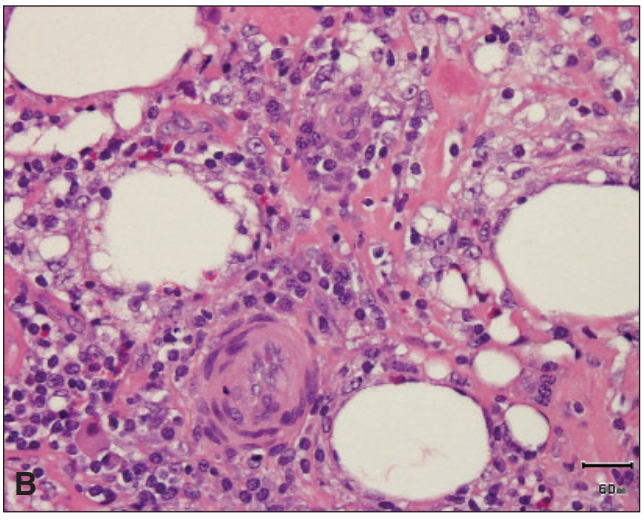


Figure 2. CT scan of the abdomen in a saggital view demonstrating an irregular mass (tip of the arrow).

on the surrounding viscera. These symptoms include; diarrhea, weight loss, malaise, abdominal mass with possible distension, nausea and vomiting, loss of appetite, fever of unknown origin, constipation or





Figures 3a and b. Histology demonstrating sclerosing mesenteritis.

anorexia (3,14,15,18). Abdominal pain is a common feature. Up to a third of patients are asymptomatic and diagnosed on the basis of incidental radiographic abnormalities or during surgery in one report (15).

Laboratory tests are typically normal. Abdominal CT findings may demonstrate a well-defined heterogeneous mass with interspersed areas of fat and soft tissue or an ill-defined area of inflammation within the mesenteric fat and soft tissues (8,15). The natural history of sclerosing mesenteritis varies and may result in: partial resolution of the inflammatory response, complete resolution, or aggressive progression of fibrosis (4,11). A benign course is not unusual (4,8,13,15,18). There is no specific treatment, however, steroids, colchicine, cyclophosphamide, tamoxifen, and irradiation have been used with some success (1,2,5–7, 4,15,17,18). Surgery is often required in the diagnosis or in managing bowel obstruction (3). Our patient had intermittent abdominal pain which was not significant during a follow-up visit and he continues to do well without interventions. ■

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