

Sclerosing Mesenteritis: A Case Report

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BACKGROUND

The mesentery is an abdominal structure comprised of 2 layers of peritoneal tissues that connect the small and large intestine to the posterior abdominal wall. Specifically, it allows for the passage of blood vessels, nerves, and lymphatic vessels, and plays an undefined role in inflammatory diseases².

Sclerosing mesenteritis is a rare, benign, inflammatory / fibrotic disease that affects the mesentery, a paraneoplastic syndrome. First identified in 1924 without a known etiology, sclerosing mesenteritis encompasses a variety of rare inflammatory disorders that involve the bowel mesentery. With a less than a 1% prevalence, sclerosing mesenteritis includes mesenteric panniculitis and mesenteric lipodystrophy, which only differ based on histology. Sclerosing mesenteritis is most commonly diagnosed in ages 40 to 70 years old due to the prevalence of more mesenteric fat., Caucasian men with prior abdominal surgery, autoimmune diseases, and underlying malignancy like Hodgkin's lymphoma commonly present with abdominal pain, nausea, vomiting, diarrhea and/or constipation¹. As technology has advanced with the dominance of CT scan imaging aiding physicians with diagnoses, sclerosing mesenteritis has become a diagnosis of interest.

OBJECTIVE

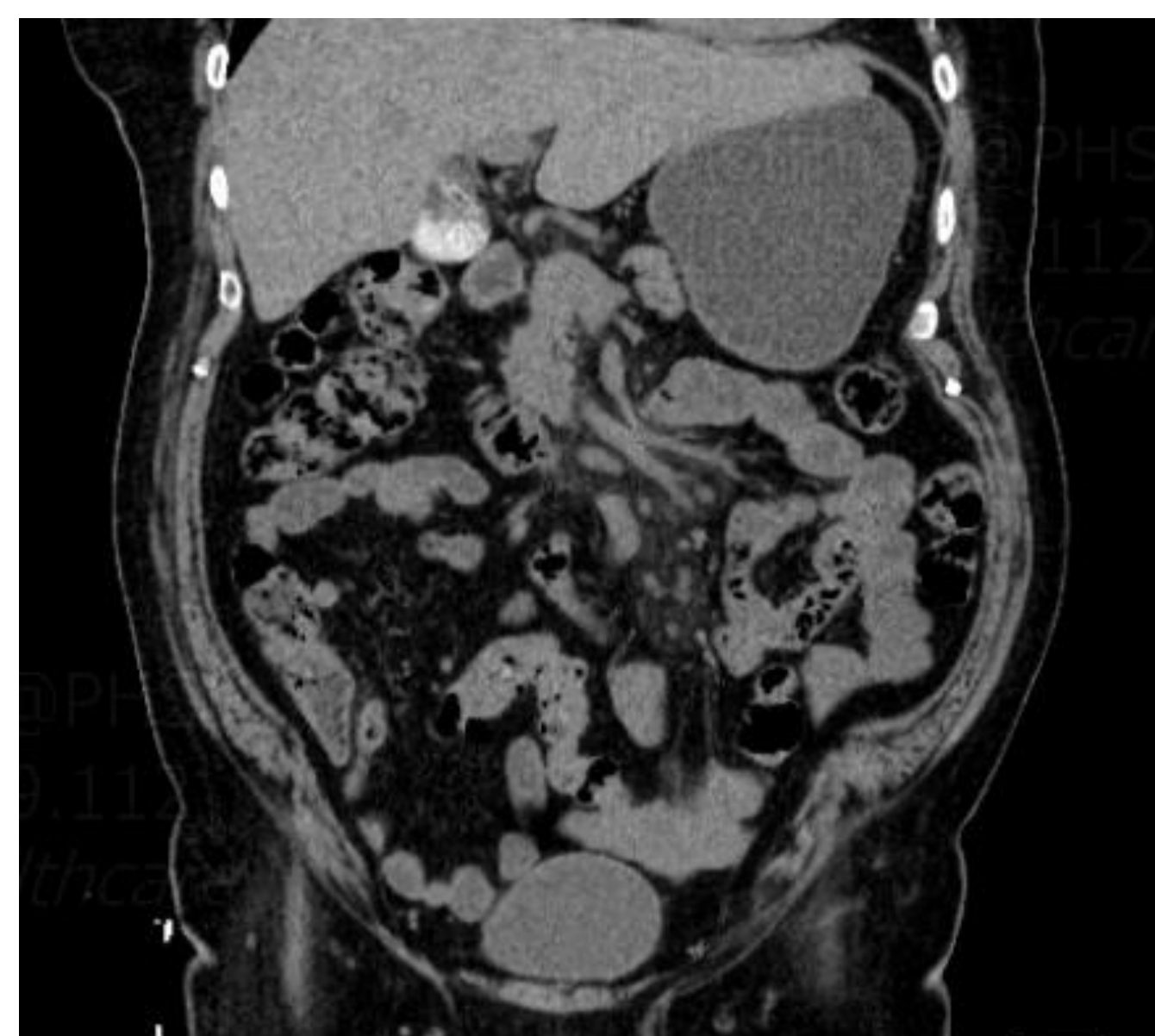
To better understand the development and presentation of sclerosing mesenteritis and look into the use of antibiotics as possible treatment of sclerosing mesenteritis.

METHODS

Initial literature searches performed using Google Scholar, PCOM Library Databases using keywords: sclerosing mesenteritis, inflammatory adipose tissue of bowel mesentery, mesenteric panniculitis, and mesenteric lipodystrophy. Inclusion criteria included meta-analyses, case reports, manuscripts and/or case series in English and in an electronic format. Articles and information pertaining to the topic were excluded if the information was not available in English or an electronic format.

Figures 1 (left) and 2 (right): CT imaging of our patient that shows radiologic findings typical of sclerosing mesenteritis. "Misty mesentery" is present in both images, which shows increased attenuation of mesenteric fat with small lymph nodes without a discrete mass.

Figure 2 shows the "fat ring / halo sign", which is preservation of fat around the mesenteric vessels and around soft tissue nodules on the background of diffuse fat stranding.



RESULTS

Our patient is a 69-year-old Caucasian male presenting with abdominal pain, nausea, and diarrhea. He also presented with sepsis, acute renal failure, and without prior history of abdominal surgery. This atypical presentation gives a look into the use of antibiotics as a possible treatment and looks into further understanding the development and presentation of sclerosing mesenteritis. The patient had resolution of symptoms with antibiotic treatment (Zosyn) and without invasive diagnostic modalities or treatment. According to recent hospital medical records, the patient has not returned to the hospital (or other surrounding hospitals) with further complications related to his new diagnosis of sclerosing mesenteritis.

DISCUSSION

Sclerosing mesenteritis encompasses a spectrum of diseases that are rare and slowly progressive. Mesenteric lipodystrophy is fat and adipocyte necrosis of the mesentery. Chronic inflammation of lipodystrophy can develop into mesenteric panniculitis. Increased inflammation leading to fibrosis develops into sclerosing mesenteritis. Mesenteric panniculitis is the most common stage of this disease spectrum¹.

Diagnosis of sclerosing mesenteritis is most common via a CT scan of the abdomen and pelvis, along with typical labs of elevated inflammatory markers (ESR, CRP) and a low albumin. Definitive diagnosis requires surgical biopsy via laparoscopy or laparotomy. Treatment of sclerosing mesenteritis is based upon symptomatic treatment commonly using steroids, tamoxifen, and immunosuppressive agents¹.

Antibiotics are commonly used to treat infection and inflammation and could provide a noninvasive treatment for inflammatory diseases. Our patient was placed on Zosyn (piperacillin-tazobactam), a commonly used antibiotic to treat abdominal infections for its broad spectrum Gram positive, Gram negative, and anaerobic bacterial coverage. Specifically, antibiotics could treat the earlier stages of lipodystrophy and panniculitis and prevent the development of sclerosing mesenteritis, which can have many complications including bowel obstruction, chronic mesenteric ischemia (both of which are surgical emergencies), ascites, and renal failure.

CONCLUSION

Sclerosing mesenteritis mimics many other malignant conditions like lymphoma, carcinoid tumors, peritoneal carcinomatosis especially based on CT scan diagnosis. Its diagnosis can help lead to a quicker diagnosis, and perhaps treatment, of its more malignant mimics, which are not usually diagnosed until too late. It can lead to a better understanding of the mesentery itself and other diseases of the mesentery, and treatment of patients with this rare disease.

REFERENCES

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DISCLOSURES

All authors are affiliated with Philadelphia College of Osteopathic Medicine, Philadelphia, PA.

All authors have no disclosures.