A Case of Sclerosing Mesenteritis

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Introduction

Sclerosing mesenteritis (SM) is related to a chronic inflammatory or previous abdominal trauma which result in this idiopathic disease. The disease is rare with a prevalence of 0.18-3.14% in the general population with a predominance in Caucasian males. Suspicion for SM should be raised in patients with vague gastrointestinal symptoms who are 50 to 60 years old with a history of autoimmune disease or abdominal surgery. To properly diagnose the disease, CT imaging is traditionally used to identify an abdominal mass, along with a biopsy to rule out neoplastic disease such as lymphoma or metastatic tumors.

Case

Patient Presentation

59- year-old woman with no PMHx for autoimmune disease and a negative PSHx presenting to the emergency department after several episodes of nausea and non-bilious vomiting for four days along with severe epigastric and LUQ abdominal pain. She was tender to palpation in the epigastric region but had no other significant findings. Ultimately, a biopsy through robotic assisted exploratory laparoscopy was performed for further work up.

Pre-operative Work Up

- **Labs** – Elevated CRP (89.6 mg/dL) and IgG (2273mg/dL)
- **CT Abdomen and Pelvis** – 6.1 x 5.5 x 6.1cm mass with associated fat-stranding along with sub centimeter lymph nodes.
- **EGD and Colonoscopy** – negative for signs of malignancy

Pre-Operative Imaging

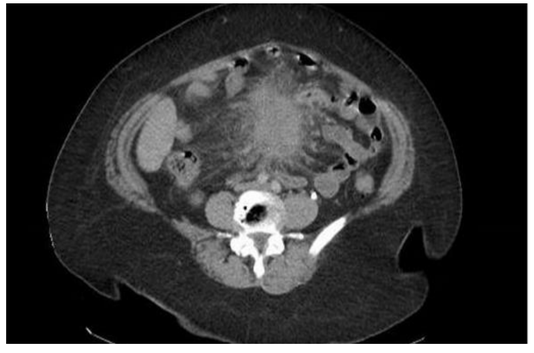


Figure 1: Pre-operative axial abdominal CT visualizing, enlarged lymph nodes, 6.1x5.5x6.1cm mass and stranding

Intraoperative findings

- Upon insuflation, the visualized abdomen was unremarkable other than pelvic free fluid seen and suctioned
- Cranially retracted omentum revealed adhesions between the transverse colon to the small bowel mesentery where mass was visualized on CT - LOA performed using sharp scissors
- Greater curvature of stomach: two 1cm lymph nodes
- Level 1 and Level 3 gastric lymph node stations: small lymph nodes
- Gastrohepatic ligament: small lymph node
- Hepatic artery: 2cm node at Level 7 station
- IOC angiogram for visualization of hepatic artery performed to r/o damage

Pathology

- Fibrovasular and adipose tissue - focal chronic inflammation with lymphoid aggregates
- Heterogenous population of variable-sized lymphocytes and no evidence of lymphoma

Immunophenotypic Findings:

- 34.7% small, mature T lymphocytes
- 36% mature, polytypic B lymphocytes
- 0.7% NK cells
- 1.6% plasma cells

Discussion

The patient discussed ultimately received the diagnosis of sclerosing mesenteritis, through a diagnosis of exclusion. Due to the combination of symptoms and negative workup for other disease processes, pathology results after biopsy confirmed the diagnosis. Sclerosing mesenteritis is a rare condition with few cases reported to date and although commonly presenting in patients with previous abdominal trauma or autoimmune conditions, further studies are required to improve diagnosis and treatment. Hematologic biochemistry can occasionally show elevated ESR, CRP and an IgG predominance. With non-specific abdominal symptoms and an inflammatory state seen on blood assay, SM tends to be overlooked as a diagnosis and other differentials are suggested. In the last decade, a group of identifying criteria known as Coulier classification has been suggested in order to improve SM diagnosis and prevent unnecessary invasive biopsies. The criteria for a probable diagnosis of SM requires three or more observations of: mass effect caused by a mesenteric fatty lesion that is well-defined, a mass of mesenteric fatty tissue with greater attenuation than nearby adipose tissue, small lymph nodes within mesenteric fat, halo sign, a hyperattenuating pseudocapsule surrounding mesenteric fat. Due to variable use within literature, the Coulier classification is not a validated criteria for diagnosis. For standardized management of SM, continued studies are required for diagnosis and treatment of the disease.

Resources

Sharawi S, Graffeo V, Goebel LJ. Sclerosing Mesenteritis: A Rare Cause of Abdominal Pain. Cureus. 2022;14(8):e28573. Published 2022 Aug 30. doi:10.7759/cureus.28573

Saha B, Tome J, Wang XJ. Sclerosing mesenteritis: A concise clinical review for clinicians. Mayo Clinic Proceedings. 2024;99(5):812-820. doi:10.1016/j.mayocp.2024.01.019