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IMAGE | STOMACH

Rare Subepithelial Mass Diagnosed as Gastric Splenosis via EUS-FNA

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CASE REPORT

A 20-year-old woman was referred for evaluation of a gastric subepithelial mass, noted incidentally on an esophagogastroduodenoscopy performed for evaluation of dyspepsia (Figure 1). She had a past medical history of Diamond-Blackfan syndrome status post bone marrow transplant, and recurrent acute pancreatitis status post total pancreatectomy with splenectomy 4 years before presentation. Endoscopic ultrasound (EUS) revealed the presence of a 21 x 18-mm round, hypoechoic, and homogenous mass in the cardia, with an echogenicity reminiscent of splenic tissue (Figure 2). No other foci of ectopic splenic tissue were found on cross-sectional imaging. Endosonographic borders were well defined, and the lesion appeared to be localized within the muscularis propria without extragastric extension. Cytology smears and hematoxylin and eosin stains fine-needle aspiration biopsies showed a population of polymorphous small lymphocytes, interspersed granulocytes, and frequent hemosiderin laden macrophages (Figure 3). This population was intimately associated with small vessels, highlighted by CD34 and CD8 immunohistochemical stains (Figure 4). Coexpression of CD34 and CD8 is consistent with splenic sinusoids.[1]

Subepithelial gastric masses are occasionally seen during endoscopy and often require examination by EUS.[2] Splenosis can present as a subepithelial mass; however, given inability to differentiate from other subepithelial masses, surgery is often performed.[3,4] Ectopic splenic tissue can be found as 2 distinct forms: accessory spleens and splenosis. Accessory

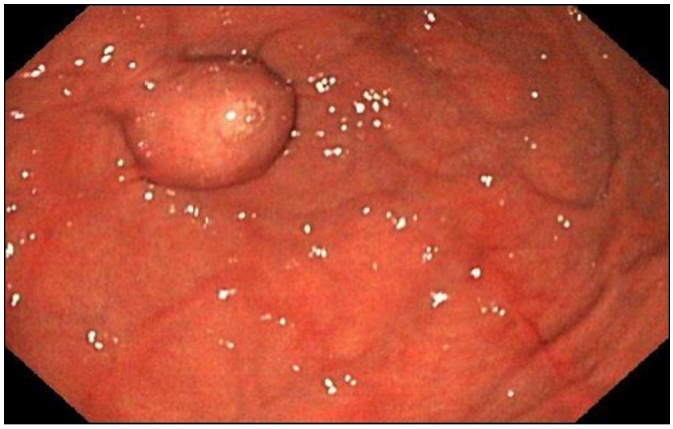

Figure 1. Endoscopic appearance of subepithelial mass.

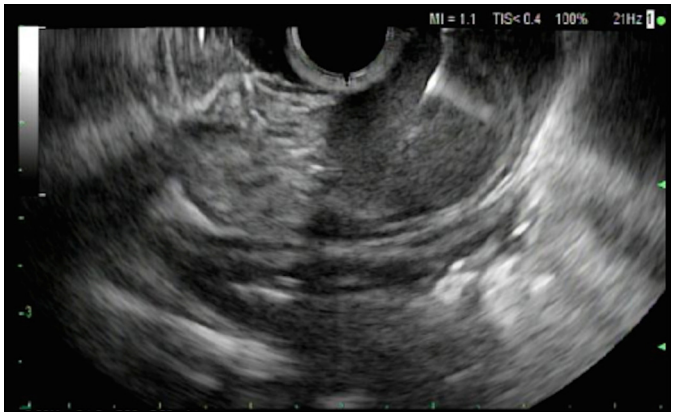

Figure 2. Endoscopic ultrasound revealed the presence of a 21 x 18-mm round, hypoechoic, and homogenous mass in the cardia, with an echogenicity reminiscent of splenic tissue.

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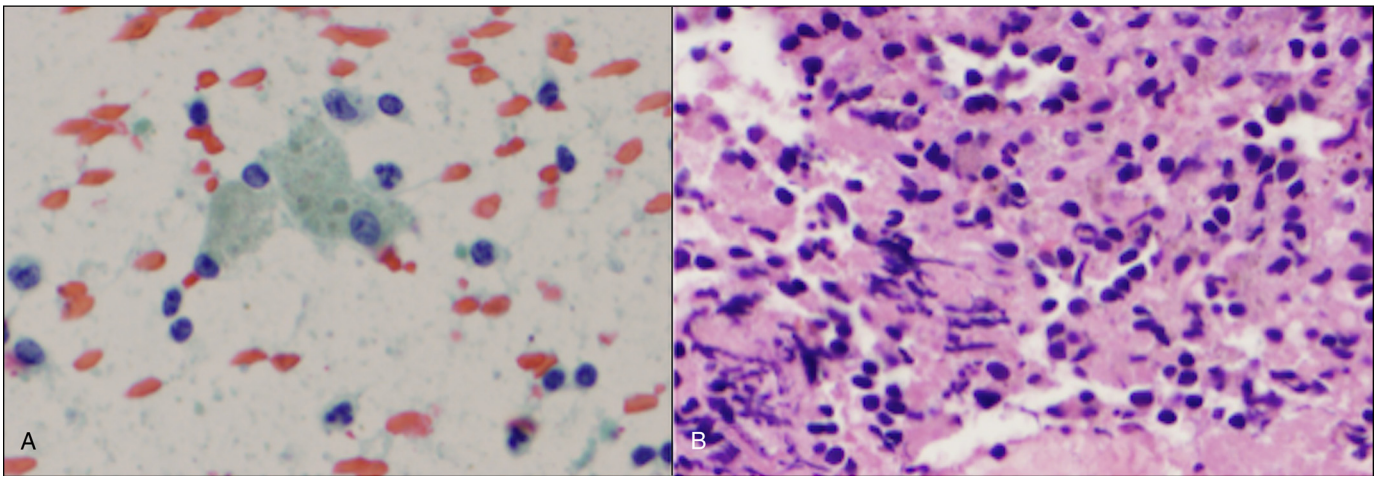

Figure 3. (A) Cytology smears show polymorphous small lymphocytes, granulocytes, and frequent hemosiderin laden macrophages (20x, pap stain). (B) Cell block preparation shows small lymphocytic population intimately associated with many sinusoidal vessels (20x, hematoxylin and eosin).

spleens are congenital, whereas splenosis is an acquired phenomenon in which splenic implants grow in ectopic locations.[3,4,5] It occurs in patients after traumatic rupture of the spleen or a splenectomy.[5] The ectopic splenic tissue in splenosis is thought to have normal splenic function.[5] Howell-Jolly bodies and other abnormal red cells that are seen in patients who have undergone splenectomy may not be present on peripheral smear.[5]

Gastric splenosis has been described in isolated case reports.[2-4,6] These were either noted incidentally at time of endoscopy[2] or associated with gastrointestinal bleeding.[4,6] Given inability to differentiate from other subepithelial masses, such as a gastrointestinal stromal tumor,[3,4] surgery is often performed. Given the absence of additional ectopic splenic tissue foci on imaging, splenosis was not high on the differential diagnosis before EUS. Endoscopic ultrasound-fine needle aspiration (FNA) pathology confirmed diagnosis of a gastric splenule, and the patient was spared from surgical resection. Gastric splenosis should be considered as a possible etiology for subepithelial masses in patients with prior splenic trauma or surgery, particularly if their peripheral blood smear does not show Howell-Jolly bodies.[4,5]

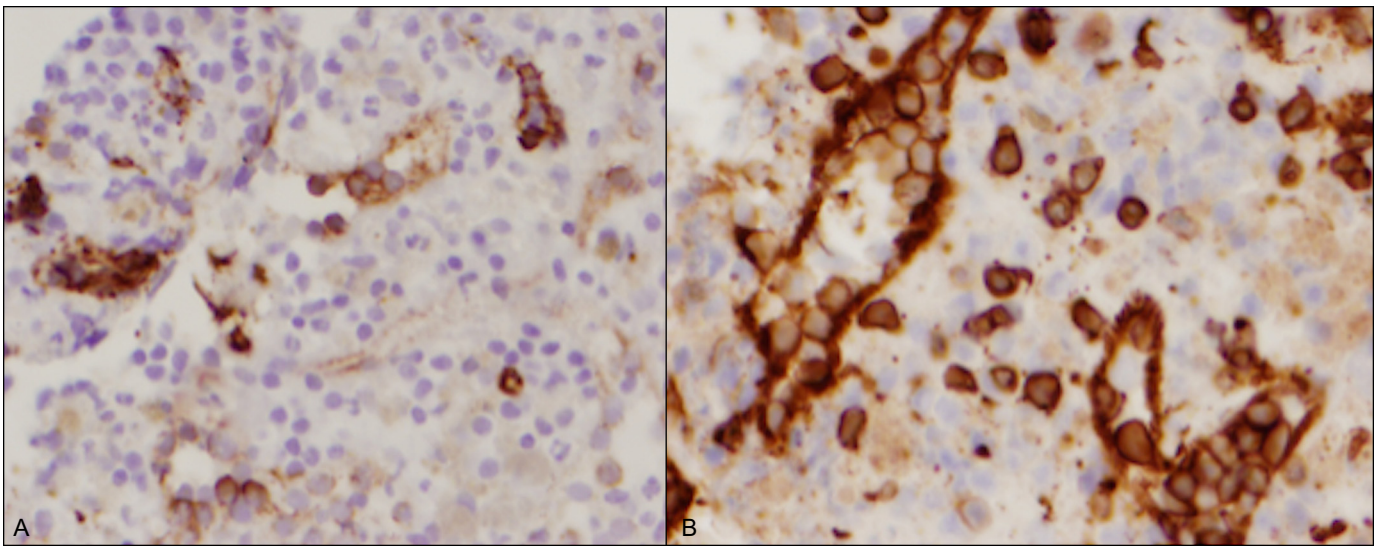

Figure 4. (A) CD34 (20x) and (B) CD8 (40x) immunostains highlight the lining sinusoidal cells, coexpression of which is consistent with splenic sinusoids.

DISCLOSURES

Author contributions: S. Elwir collected data, wrote the manuscript, and is the article guarantor. B. Thakral collected data and edited the manuscript. B. Glessing and E. Courville edited the manuscript. S. Mallery wrote and edited the manuscript.

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