11-20-2019

Gamna-Gandy Bodies Present as a Spleen Mass in a Patient with Hereditary Spherocytosis

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Recommended Citation

Dargan C, Habeebu SS, Mitchell GS, Li W. Gamna-Gandy bodies present as a spleen mass in a patient with hereditary spherocytosis. The Journal of Pediatrics: X. 2019;1:100010. doi:10.1016/j.ympdx.2019.100010

Gamna-Gandy Bodies Present as a Spleen Mass in a Patient with Hereditary Spherocytosis

A 17-year-old male patient with a history of anemia presented with a 2-month history of left upper quadrant pain. Computed tomography scan of the abdomen revealed an approximately 7.3-cm spherical heterogeneously enhancing and partially exophytic mass arising from the inferior anterior portion of the spleen (**Figure**, A, between arrows). Differential considerations included vascular malformation, evolving hematoma, and soft tissue tumor. Partial splenectomy was performed. Pathology revealed splenic congestion and disruption of normal architecture by irregularly shaped fibrotic nodules containing hemosiderin-laden macrophages (**Figure**, B and C, hematoxylin and eosin stain, B, ×50, C, ×400). There was also focal necrosis and splenic capsule thickening. Computed tomography scan postoperatively revealed no evidence of portal hypertension. Complete blood count showed hemoglobin 14.1 g/dL with mean corpuscular volume 82 fL, normal platelet, and white blood cell counts. Peripheral blood smear showed numerous spherocytes with mild to moderate polychromasia (**Figure**, D, Wright stain, ×1000). Osmotic fragility test revealed increased erythrocyte osmotic fragility, and genetic testing confirmed hereditary spherocytosis.

The irregularly shaped fibrotic nodules in the spleen were first described in 1902 by the French physician Charles Gandy in a patient with biliary cirrhosis. The etiology of this pathologic finding was not understood until almost 20 years later when Carlos Gamna, an Italian pathologist, found that the amorphous material was composed of iron and calcium sulfate deposits. Therefore, the name Gamna-Gandy bodies (GGBs) was established. GGBs of the spleen are benign lesions associated with chronic hemorrhage or blood stasis, such as in the splenomegaly of longstanding portal hypertension, sickle cell disease, and hemolytic diseases.[1-3] Occasionally, they are also seen in tumors of other organs, including atrial myxomas[4] and renal cell carcinoma.[5,6] GGBs are not commonly seen in children with hereditary spherocytosis.[3] GGBs in spleen are usually diffuse. They may mimic hematoma or tumor when they are present focally as seen in our case. ■

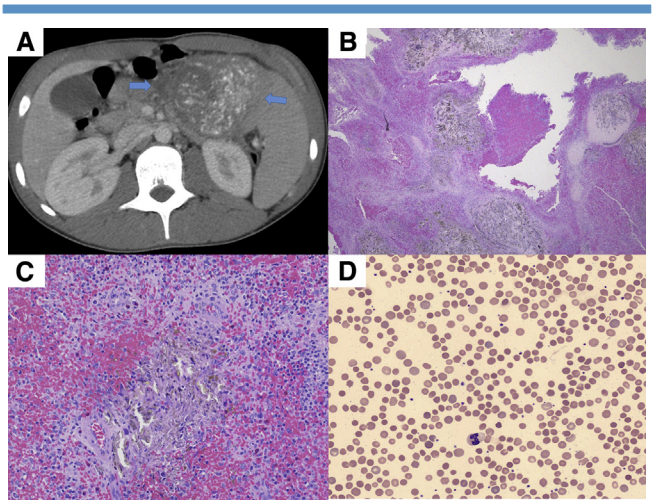

Figure. Computed tomography scan of the spleen mass, histopathologic features of Gamna-Gandy bodies, and microscopic findings of peripheral blood. **A,** Computed tomography scan revealed a large spherical heterogeneously enhancing and partially exophytic mass arising from the inferior anterior portion of the spleen. **B** and **C,** Hematoxylin and eosin stained section revealed splenic congestion and disruption of normal architecture by irregularly shaped fibrotic nodules containing hemosiderin-laden macrophages. **D,** Wright stained peripheral blood smear showed numerous spherocytes with polychromasia.

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Cite this article as: J Pediatr: X. 2019;1:100010

https://doi.org/10.1016/j.ympdx.2019.100010

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