Non-cirrhotic Portal Fibrosis and Gamma-Gandy Bodies

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A 22-year-old female with no comorbidities presented with complaints of early satiety and feeling of mass abdomen in left upper quadrant of 5-year duration. There was history of upper gastrointestinal bleed 2 months back, for which, an endoscopic variceal ligation was done at a referral hospital. On examination, patient was pale, with massive splenomegaly. Rest of the systemic examination was unremarkable. Complete blood counts revealed pancytopenia with hemoglobin of 7 g/dL, platelet count of 30000/mm³, and a total leukocyte count of 1700/mm³. Liver function tests were normal, and gastroscopy showed large varices. Magnetic resonance imaging abdomen with venography showed features of non-cirrhotic portal fibrosis with normal liver, grossly dilated splenoportal axis, and massive splenomegaly. T1- (Figure 1) and T2- (Figure 2) weighted images showed diffuse hypointense foci suggestive of Gamma-Gandy bodies.

These nodules are characterized by signal void on all pulse sequences, both of T1- and T2-weighted images, due to their hemosiderin content.¹ Gamma-Gandy bodies or siderotic nodules are small, firm nodules of fibrous tissue, impregnated with iron pigment (hemosiderin) and calcium salts that occur in the spleen in 9–12% of patients with long-standing portal hypertension.^{2,3} The pathophysiologic process leading to the formation of Gamma-Gandy bodies is hemorrhage in the parenchyma followed by scarring of the collagen and elastic fibers and impregnation with iron and calcium.

Figure 1 T1-weighted magnetic resonance image showing diffuse hypointense foci in spleen suggestive of Gamma-Gandy bodies.

Figure 2 T2-weighted magnetic resonance image showing diffuse hypointense foci in spleen suggestive of Gamma-Gandy bodies.

REFERENCES

1. Elsayes KM, Narra VR, Mukundan G, Lewis JS Jr, Menias CO, Heiken JP. MR imaging of the spleen: spectrum of abnormalities. *Radiographics* 2005;25:967–82.
2. Minami M, Itai Y, Ohtomo K, et al. Siderotic nodules in the spleen: MR imaging of portal hypertension. *Radiology* 1989;172: 681–4.
3. Sagoh T, Itoh K, Togashi K, et al. Gamma-Gandy bodies of the spleen: evaluation with MR imaging. *Radiology* 1989;172:685–7.

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