

A rare sign of portal hypertension

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Quiz

A 44-year-old male with previous medical history of alcoholism, obesity, hypertension and goiter performed diagnostic work-up consistent with alcoholic liver cirrhosis. Blood tests revealed thrombocytopenia (platelet count $47 \times 10^9/L$) and mild elevation of aspartate aminotransferase, alanine aminotransferase and gamma-glutamyl transferase levels. Albumin, bilirubin and coagulation studies were normal. Abdominal ultrasound revealed splenomegaly and, remarkably, multiple punctiform hyperechoic foci could be seen dispersed within splenic parenchyma (Figure 1). What is your diagnosis?

Answer

Ultrasound was remarkable for the presence of splenic Gamna-Gandy bodies. Spleen stiffness measured by elastography was 75.8 kPa. These features were suggestive of portal hypertension, which prompted screening endoscopy where large esophageal varices were found. These were successfully eradicated with endoscopic band ligation and the patient remains in compensated stage of clinically significant portal hypertension.

Gamna-Gandy bodies are small, firm nodules that consist of organized foci of bleeding composed of hemosiderin, calcium and fibrous tissue within the spleen caused by portal hypertension as a result of increased blood pressure in splenic red pulp. Less commonly, they may occur in association with other conditions including paroxysmal nocturnal hemoglobinuria, hemolytic anemia, sickle cell anemia, lymphoma or leukemia. The bodies take their name from the Italian pathologist Carlo Gamna (1866-1950) and the French physician Charles Gandy (1872-1943). They vary in size from 2-3 mm to approximately 10 mm and are seen in about 9 to 12% of patients with portal hypertension. Magnetic resonance imaging is the most sensitive modality where they characteristically appear as multiple tiny intrasplenic lesions of low signal intensity on all sequences. Ultrasound may demonstrate diffuse hyperechoic spots within the spleen (1).

Interestingly, Gamna-Gandy bodies appear to be associated with other signs of portal hypertension, including splenomegaly, thrombocytopenia and greater portal/splenic vein diameter (2,3). Therefore, their pre-

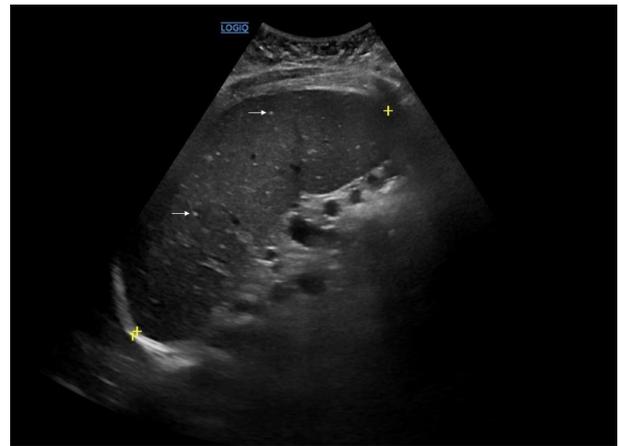


Figure 1. Abdominal ultrasound revealed the presence of multiple hyperechoic spots (two of them highlighted with arrows) dispersed within a large spleen (with a diameter of 19 cm).

sence and number may be an important noninvasive predictor for clinically significant portal hypertension that could be useful in selection of cirrhotic patients at high risk of esophageal varices for endoscopic screening.

Keywords: Gamna-Gandy bodies, portal hypertension, esophageal varices, spleen.

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Conflict of interest

No potential conflict of interest relevant to this article was reported.

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