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### CLINICAL IMAGE



# Intrahepatic splenosis mimicking hepatocellular carcinoma

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#### KEYWORDS

hepatic malignancy, magnetic resonance imaging, steatotic liver disease

A 50 years-old male outpatient was evaluated for the detection of a hepatic nodule during workup for chronic ALT elevation. The patient had undergone splenectomy for abdominal trauma when he was 14 years old and had evidence of metabolic and alcoholic steatotic liver disease. MRI showed marked hepatic fatty infiltration and a mass in the 3rd segment. The nodule was hypointense in T1, isointense in T2, and hyperintense in T2-weighted imaging with fat suppression, and showed restriction in diffusion-weighted sequences. The aspect after the administration of gadoxetic acid is shown in Figure 1a–c.

The MRI characteristics were highly suspicious for hepatocellular carcinoma, but imaging was not sufficient to make a diagnosis because features of cirrhosis were lacking.<sup>3</sup> The patient underwent US-guided liver biopsy on two occasions, with similar reports (presence of necrotic cells and lymphocytes). In consideration of the high risk of malignancy, the patient underwent resection of the hepatic third segment. With the postoperative pathology report (Figure 1e-f), a diagnosis of intrahepatic splenosis was made. This case underscores the essential role of a liver biopsy for the definition of focal lesions in a non-cirrhotic liver.<sup>3</sup> In case of inconclusive biopsy, resection is advised, as outlined in a recent review.<sup>4</sup>.

Martina Rosi and Valentina Adotti contributed equally.

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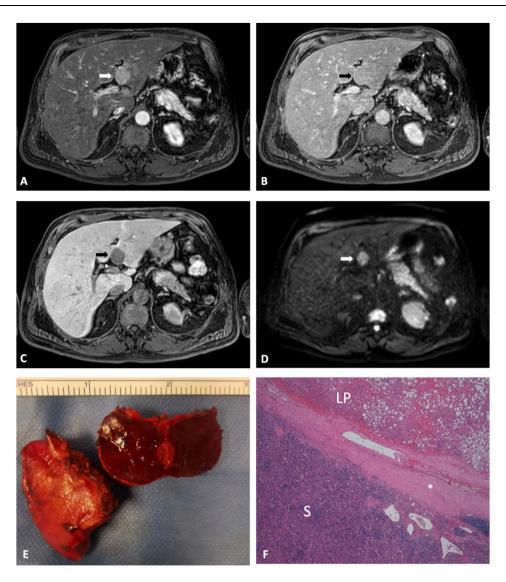


FIGURE 1 MRI of intrahepatic splenosis (arrow) showing arterial enhancement (a), isointensity in the portal phase (b), hypointensity in the hepatobiliary phase (c) and restriction in diffusion-weighted sequences (d). Macroscopic aspect of resected nodule (e). Histopathology (f) showing steatotic liver parenchyma (LP) separated by a fibrous capsula (\*) from the highly vascularized lymphoid tissue with follicular areas (S). Original magnification 4x.

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### CONFLICT OF INTEREST STATEMENT

The authors have no conflicts of interest to declare.

## DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

## INFORMED CONSENT

Written informed consent has been obtained from the patient. This is held by the corresponding Author together with the Patient's medical record, and is available upon request.

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#### **REFERENCES**

- Rinella ME, Lazarus JV, Ratziu V, Francque SM, Sanyal AJ, Kanwal F, et al. A multi-society Delphi consensus statement on new fatty liver disease nomenclature. J Hepatol. 2023;79(6):S0168-8278(23)00418-X. Online ahead of print. PMID: 37364790. https://doi.org/10.1016/j. jhep.2023.06.003
- Chernyak V, Fowler KJ, Kamaya A, Kielar AZ, Elsayes KM, Bashir MR, et al. Liver imaging reporting and data system (LI-RADS) version 2018: imaging of hepatocellular carcinoma in at-risk patients. Radiology. 2018;289(3):816–30. https://doi.org/10.1148/radiol. 2018181494
- Galle PR, Forner A, Llovet JM, Mazzaferro V, Piscaglia F, Raoul JL, et al. EASL clinical practice guidelines: management of hepatocellular carcinoma. J Hepatol. 2018;69(1):182–236.

Epub 2018 Apr 5. Erratum in: J Hepatol. 2019 Apr;70(4): 817. PMID: 29628281. https://doi.org/10.1016/j.jhep.2018. 03.019

Toh WS, Chan KS, Ding CSL, Tan CH, Shelat VG. Intrahepatic splenosis: a world review. Clin Exp Hepatol. 2020;6(3):185–98. Epub 2020 Sep 30. PMID: 33145425; PMCID: PMC7592095. https://doi.org/10.5114/ceh.2020.99509

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