

Images in Infectious Diseases

Visceral leishmaniasis with multiple splenic nodular lesions

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FIGURE 1: Magnetic resonance imaging enlarged spleen. (A-B): Contrast-enhanced T1-weighted sequence of the abdominal axial plane revealing multiple hypointense nodular lesions with perilesional enhancement (white arrows) in the superior part of the spleen. (C): Contrast-enhanced T1-weighted sequence of the abdominal coronal plane, revealing similar lesions (white arrows) mainly in the superior part of the spleen.

An 81-year-old male patient presented with fever, weight loss, and abdominal distension at the hospital. Physical examination revealed marked splenomegaly and emaciation. The hematological study showed pancytopenia (hemoglobin: 7.5 g/dl, leukocyte count: 620/mm³, and platelets: 57,000/mm³), and serum albumin level (2.5 g/dl) was below normal. Laboratory tests were negative for anti-human immunodeficiency virus (HIV)-1, anti-HIV-2, hepatitis B virus surface antigen, anti-hepatitis C virus, and venereal disease and positive for recombinant K39 antigen. Patient was diagnosed with visceral leishmaniasis based on clinical and laboratory findings. Contrast-enhanced T1-weighted magnetic resonance imaging of the abdomen revealed an enlarged spleen with multiple hypointense nodules throughout the splenic parenchyma with perilesional enhancement (Figure 1A–C, white arrows). The patient received liposomal amphotericin B (3 mg/kg/day) for

seven days. Twenty days after starting the treatment, he was discharged with marked improvement in the clinical symptoms and without any hematological alterations. Splenic lesions disappeared after amphotericin therapy.

Similar cases of nodular lesions in the spleen related to visceral leishmaniasis have been reported in the literature. However, this manifestation appears to be rare^{1,2}. The main differential diagnosis was lymphoma, tuberculosis, and fungal infections. It is probable that the hypointense nodules represent the amastigote form of *Leishmania*, as previously reported by Bükte et al³. A limitation of our case report was that the histopathological study was not performed due to its invasive nature and the risk to the patient. The possibility of visceral leishmaniasis should be considered in the differential diagnosis of multiple nodules in the spleen.

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Conflict of Interest

The authors declare that there is no conflict of interest.

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REFERENCES

1. Raeymaeckers S, Docx M, Demeyere N. MRI-findings of nodular lesions in an enlarged spleen, associated with visceral Leishmaniasis. *Eur J Radiol.* 2012;81(10):2550-3.
2. Mao G, Yang G, Cheng Y, Zee CS, Huang W, Ni W, et al. Multiple nodular lesions in spleen associated with visceral leishmaniasis. *Medicine* 2014;93(29):e272.
3. Bükte Y, Nazaroğlu H, Mete A, Yılmaz F. Visceral leishmaniasis with multiple nodular lesions of the liver and spleen: CT and sonographic findings. *Abdom Imaging.* 2004;29(1):82-4.