



The Brazilian Journal of INFECTIOUS DISEASES

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Clinical image

A pathognomonic calcification pattern in chronic splenic brucellosis



Ulysses S. Torres^{a,*}, Luciana Vargas Cardoso^b, Giuseppe D'Ippolito^{a,c}

^a Department of Radiology, Hospital São Luiz, Fleury Medicina Diagnóstica, Rio de Janeiro, RJ, Brazil

^b Department of Radiology, Hospital de Base, Faculdade de Medicina de São José do Rio Preto, São José do Rio Preto, SP, Brazil

^c Department of Imaging, Universidade Federal de São Paulo (UNIFESP), São Paulo, SP, Brazil

ARTICLE INFO

Article history:

Received 27 May 2015

Accepted 4 June 2015

Available online 7 July 2015

A 75-year-old male farmer presented for an abdominal CT scan because of a nonspecific, longstanding abdominal discomfort, fatigue and appetite loss. Although there were no other remarkable imaging findings, an unusual pattern of multiple, thinly, concentrically lamellated calcifications resembling targets was found in the spleen (Fig. 1A), also characterized on a further MRI work-up (Fig. 1B). Such isolated radiological finding raised suspicion of brucellosis. Laboratory tests for tuberculosis, histoplasmosis, HIV, and echinococcosis were all negative. A diagnosis of isolated splenic brucellosis was made on the basis of a positive *Brucella* IgG ELISA test, clinical history, and imaging findings.

Hepatosplenic involvement is common during the course of acute brucellosis (up to 60% of patients) and usually manifests as hepatosplenomegaly or mild increase of hepatic enzyme levels secondary to a nonspecific or granulomatous hepatitis, with good prognosis.¹ Chronic brucellar hepatosplenic abscesses (brucellomas) are rare (about 2% of cases), being considered true focal complications. Isolated

brucellar splenic abscesses are even rarer, with only about 20 cases reported.²

Peripheral or central gross calcifications with a snowflake appearance are a common finding in hepatosplenic brucellomas (83–100% of cases),¹ although absolutely nonspecific. Early radiograph descriptions, however, have reported on a characteristic concentrically lamellated pattern of splenic calcifications in chronic brucellosis,³ which unfortunately has not been demonstrated after the advent of CT,¹ probably due to the rarity of splenic brucellomas and the much larger trend for an uncharacteristic gross appearance. Thus, to the best of our knowledge, this is the first report to demonstrate CT and MRI findings of this pathognomonic pattern of calcifications in splenic brucellomas since its earlier radiographic descriptions. Although exceedingly rare, awareness of this typical pattern may be useful for raising clinical suspicion, especially because diagnosis of chronic brucellosis may be sometimes misleading due to nonspecific clinical presentation.

* Corresponding author at: Department of Radiology, Hospital São Luiz Fleury Medicina Diagnóstica, Rua Doutor Alceu de Campos Rodrigues, 95, Vila Nova Conceição, São Paulo 04544-000, Brazil.

E-mail address: usantor@yahoo.com.br (U.S. Torres).

<http://dx.doi.org/10.1016/j.bjid.2015.06.003>

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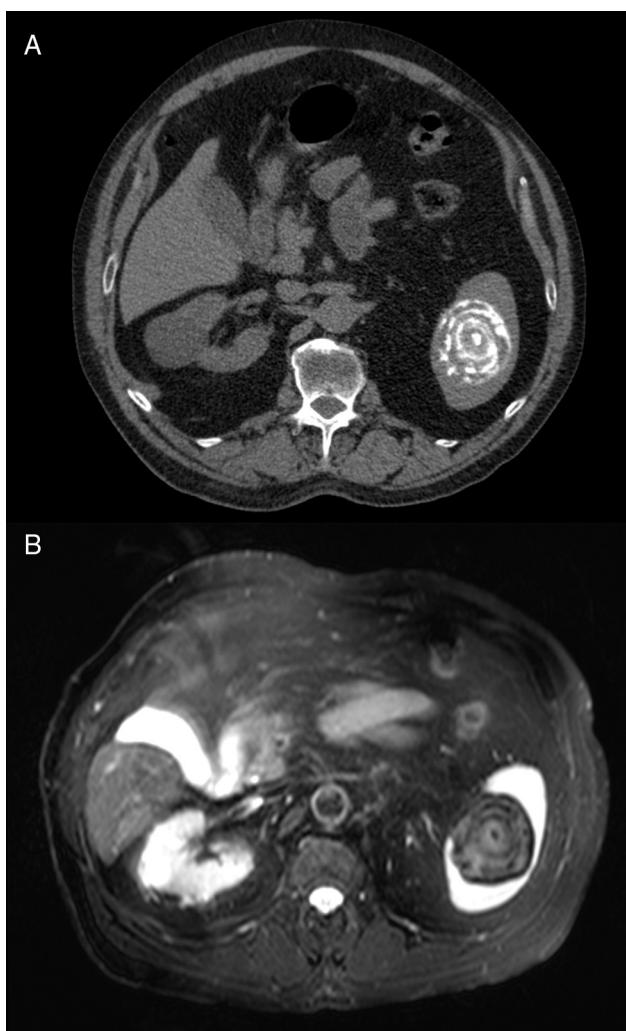


Fig. 1 – CT and MRI findings in a case of isolated chronic splenic brucellosis. Unenhanced CT (A) and fat-suppressed T2-weighted MR (B) images demonstrate multiple, thinly, target-like, concentrically lamellated calcifications in the spleen, a pattern considered characteristic for this diagnosis.

Financial support

None.

Conflicts of interest

The authors declare no conflicts of interest.

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