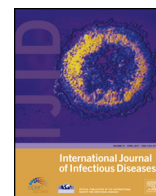




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Medical Imagery

Brucella related myocarditis



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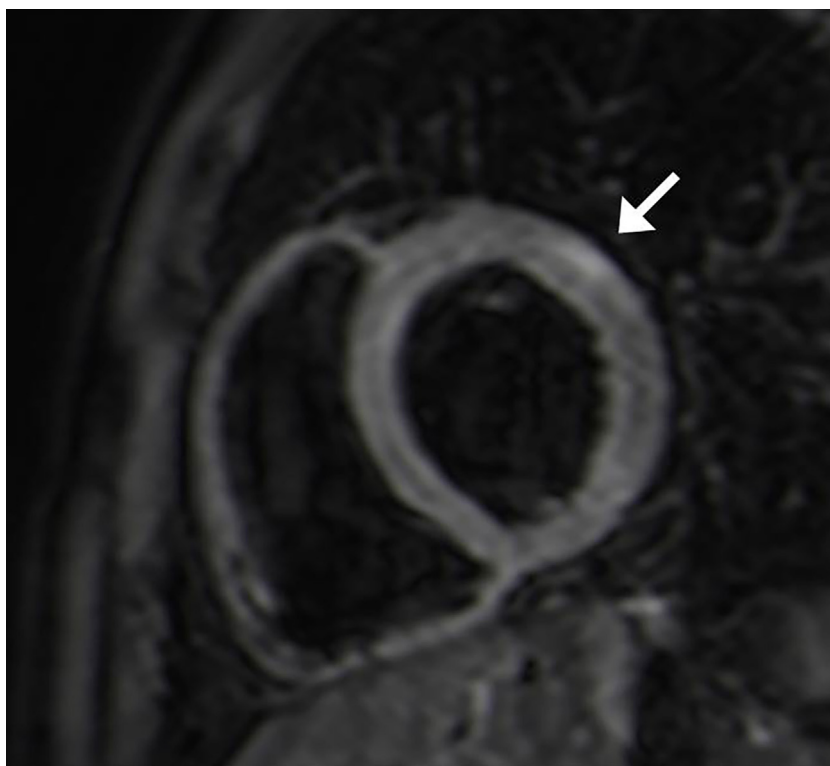


Figure 1. The contrast-enhanced cardiac MRI reveals a marked subepicardial hyperintensity in T2 weighted imaging compatible with a myocardial edema.

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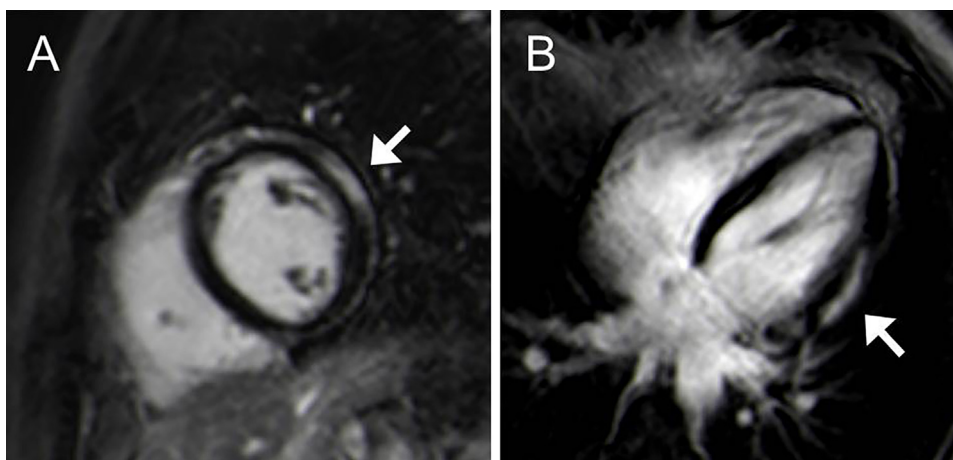


Figure 2. a, b: The cardiac MRIs show a pattern of myocardial delayed enhancement in the mid anterolateral wall, thus indicating a myocarditis.

Case

A 27-year old microbiologist developed rash, chills, sweating, fatigue, joint pain, nosebleed, headache and undulating fever. Two months ago, he accidentally got exposed to *Brucella melitensis* cultures. Inflammation parameters and aminotransferases were moderately elevated. Serological tests showed presence of *Brucella* specific antibodies, and *Brucella melitensis* was cultured from blood. An acute brucellosis as a laboratory infection was diagnosed. This infection route is feared in microbiological laboratories because the airborne infection dose of *Brucella* cultures is extremely low (Neubauer, 2010; Pappas et al., 2006). Three days after initiation of antibiotic treatment with doxycycline and rifampicin, the patient presented at the emergency room with a dull retrosternal pain and cold sweat. Laboratory parameters revealed a strongly elevated troponin T level (1246 pg/ml). Chest X-ray, electrocardiogram and echocardiography were unsuspecting. Contrast-enhanced cardiac MRI revealed a marked subepicardial hyperintensity in T2 weighted imaging compatible with edema (Figure 1) and a pattern of myocardial delayed enhancement in the mid anterolateral wall (Figure 2), thus indicating a myocarditis suspected of *Brucella*. This potentially lethal complication is highly rare, particularly in the absence of simultaneous endocarditis (Abid et al., 2012).

Due to the myocardial complication, gentamicin was added for 10 days along with a prolonged, 12-week antibiotic therapy with doxycycline and rifampicin, although the evidence for this enforcement of antibiotic therapy is sparse (Gatselis et al., 2011). After several months of physical rest and rehabilitation, the patient recovered completely.

Conflict of interest statement: No conflict of interest; no funding.

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Sebastian Wendt^{a,b,*}

Norman Lippmann^{a,b}

Jeanette Fahnert^c

Arne C. Rodloff^{a,b}

Christoph Lübbert^{b,d}

^aInstitute for Medical Microbiology and Epidemiology of Infectious Diseases, Leipzig University Hospital, Liebigstraße 21, D-04103 Leipzig, Germany

^bInterdisciplinary Center for Infectious Diseases, Leipzig University Hospital, Liebigstraße 21, D-04103 Leipzig, Germany

^cDepartment of Diagnostic and Interventional Radiology, Leipzig University Hospital, Liebigstraße 20, D-04103 Leipzig, Germany

^dDivision of Infectious Diseases and Tropical Medicine, Department of Gastroenterology and Rheumatology, Leipzig University Hospital, Liebigstraße 20, D-04103 Leipzig, Germany

* Corresponding author at: Interdisciplinary Center for Infectious Diseases, Leipzig University Hospital, Liebigstraße 21, Leipzig, D-04103, Germany.

E-mail address: Sebastian.Wendt@medizin.uni-leipzig.de (S. Wendt).

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