

Medical Imagery

Q-fever associated granulomatous hepatitis



A 24 years old male was admitted for high fever (39°3), abdominal pain, fatigue, muscle ache, vomiting and diarrhea. Laboratory results indicated elevated C-reactive protein (171 mg/L) and elevated transaminases level (ASAT 106; ALAT 132). Liver ultrasound was performed and was normal. Blood cultures were taken but remained negative. Empirical treatment with Ceftriaxone 2g 1×/day was initiated and continued for 5 days. A liver biopsy was performed 2 weeks after. Pathological examination showed the presence of multiple granulomata (Figure 1A) constituted of small clusters of epithelioid macrophages and lymphocytes (Figure 1B). Serological testing was negative for *Leptospira* sp., Hepatitis A virus (IgM/IgG), Hepatitis B virus (HBs Ag), Cytomegalovirus (IgM), *Brucella* sp., Epstein–Barr virus (IgM) and Human-Immunodeficiency Virus.

Serology using indirect immunofluorescence revealed isolated *Coxiella burnetii* Phase II IgM antibodies (titer 1/512) in the acute phase serum and a seroconversion of the *C. burnetii* Phase I and II IgG on a convalescent sample 4 months later. The patient was working at a daily market and was in contact with meat products. Hepatitis is a frequent manifestation of acute Q fever and prognosis is favorable (Eldin et al., 2017). ‘Doughnut’ granuloma is the most frequent finding on pathological exam and is constituted by central fat vacuole, a fibrin ring, activated macrophages, and lymphocytes (Lee et al., 2012). Antibiotherapy with doxycycline is recommended in primary symptomatic infection as it is associated with decreased risk of hospitalization and reduced duration of symptoms (Eldin et al., 2017).

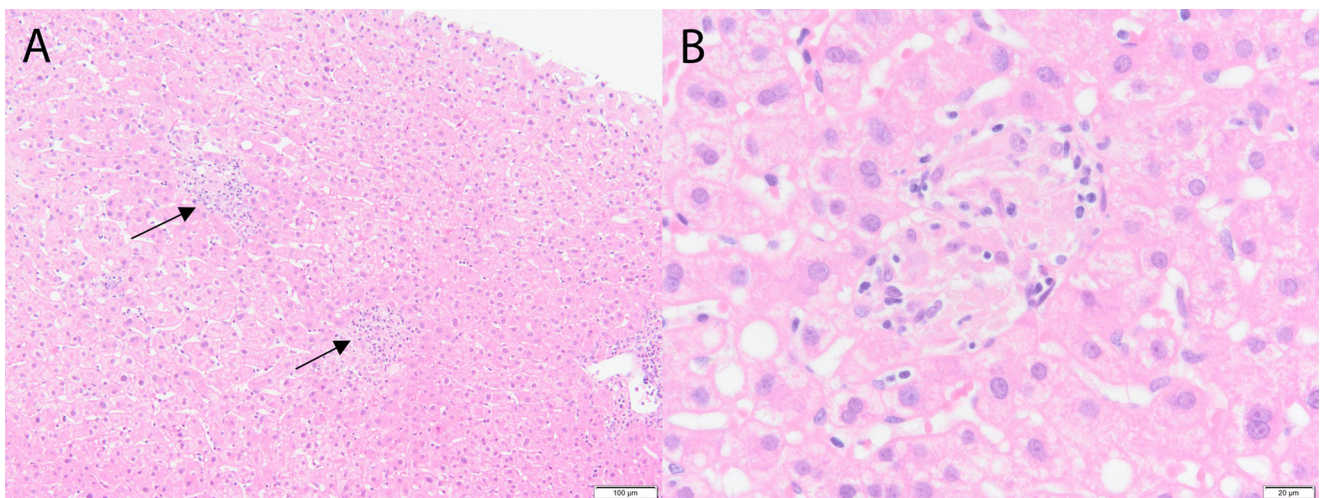


Figure 1. Pathological examination of liver biopsy showed the presence of multiple granulomata (A) constituted of small clusters of epithelioid macrophages and lymphocytes (B).

Funding

None.

Conflict of interest

None.

Ethical approval

Not required.

References

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Nicolas Dauby^{a,*}
Maria Gomez Galdon^b
Isabel Montesinos^c

Marjan Van Esbroeck^dThomas Sersté^e

^aDepartment of Infectious Diseases, Université Libre de Bruxelles (ULB), CHU Saint-Pierre, Rue Haute 322, 1000 Brussels, Belgium

^bPathology Department, Institut Jules Bordet, Université Libre de Bruxelles (ULB), Boulevard de Waterloo 121, 1000 Brussels, Belgium

^cMicrobiology Department, LHUB-ULB, Rue Haute 290, 1000 Brussels, Belgium

^dNational Reference Center for *Coxiella*, Department of Clinical Sciences, Institute of Tropical Medicine, Antwerp, Belgium

^eDepartment of Hepato-Gastroenterology, Université Libre de Bruxelles (ULB), CHU Saint-Pierre, Rue Haute 322, 1000 Brussels, Belgium

* Corresponding author.

E-mail address: Nicolas_dauby@stpierre-bru.be (N. Dauby).

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