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Editorial

Hepatic Tuberculosis: A Case Report

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A B S T R A C T

The primary form of hepatic tuberculosis, is rather rare, often has misleading appearances. Its diagnosis is histological and/or bacteriological. We report the case of a 38-year-old woman, with a history of mental retardation since childhood, who consulted for acute pain in the right hypochondrium. Abdominal ultrasound showed a thin-walled vesicle containing several microstones. On the thoraco-abdominopelvic scan with opacification, there was cholecystitis with a heterogeneous liver with multiple rounded hypodense microlesions, slightly enhanced after injection of contrast product and the abdominal MRI showed isointense T1-T2 hepatic micronodules. The etiological search for this hepatic granulomatosis including an assessment of autoimmunity, sarcoidosis was negative, as well as the infectious causes were eliminated. A laparoscopy was carried out with a cholecystectomy. The exploration found multiple whitish granulations disseminated in the entire liver. Biopsy of hepatic granulations made the diagnosis of hepatic tuberculosis. The evolution of anti-tuberculosis medication for nine months was progressive and favorable towards recovery.

Keywords: Hepatic granulomatosis; Laparoscopy; Caseous necrosis

1. Introduction

Hepatic tuberculosis is a specific infectious pathology corresponding to the localization in the liver of the Koch bacillus (Mycobacterium tuberculosis), which is an alcohol-acid-fast bacillus (AFB). Primary hepatic damage is rare during tuberculosis disease and is usually part of a multivisceral disorder[1]. The most frequently observed form is the nodular form[2]. These nodules can be large (macronodular tuberculosis) or small (micronodular form) producing the miliary form of liver tuberculosis found in 80% of cases[2]. Most patients present with atypical symptoms that have lasted for a month to a year, such as abdominal pain, weight loss, generalized weight loss, anorexia, fever, diarrhea, and hepatomegaly on physical examination[3,4]. Additional examinations using abdominal ultrasound, computed tomography (CT) and magnetic resonance imaging (MRI) are non-specific and little contributory[4-6]. The definitive diagnosis is histological or bacteriological carried out by ultrasound-guided or scan-guided liver biopsy which will show an epithelial-gigantocellular granuloma with caseous necrosis[7]. The treatment is very well codified with a good prognosis[8]. We report here the case of a 38-year-old single housewife who was operated on for cholecystitis followed by the appearance of cervical ADP, in whom the pathological examination of liver and lymph node biopsies carried out respectively during a cholecystectomy and puncture trans parietal was able to obtain diagnostic certainty. The evolution under antibacillary treatment was progressively towards recovery.

2. Patient and Observation

2.1 Patient information

A young woman aged 38, single, unemployed, with a history of moderate psychological deficiency since childhood secondary to neonatal meningitis under no treatment, consulted for isolated

abdominal pain without progressive febrile or icteric syndrome. for a month, not improved by symptomatic treatments.

2.3 Clinical results

On physical examination, there was painful guarding upon palpation of the right hypochondrium, positive Murphy's sign, a temperature of 37.2°C.

2.4 Diagnostic approach

The biological assessment showed an elevation of CRP to 48 mg/l. There was no hyperleukocytosis or anemia, cholestasis or cytolysis, hepatitis B, hepatitis C and HIV serologies were negative. The abdominal ultrasound performed revealed a thin-walled vesicle containing several mini-stones (**Figure 1**).

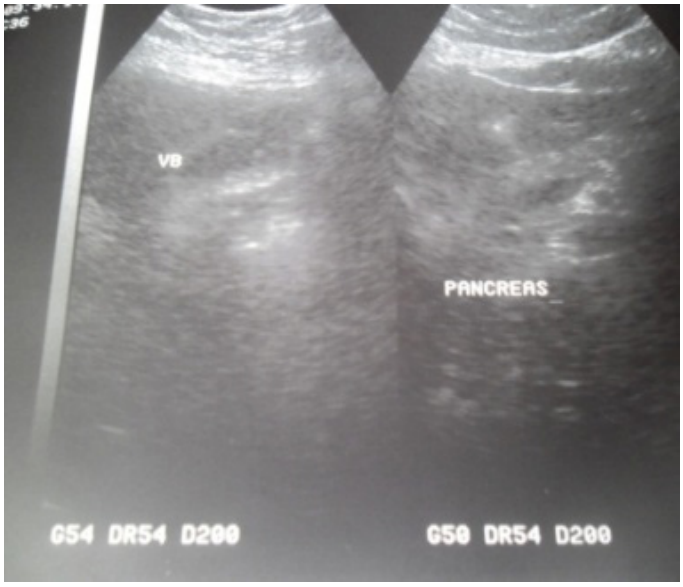

Figure 1: Abdominal ultrasound showing a vesicle with small stones.

Abdominal CT scan before (**Figure 2**), and with opacification confirmed this cholecystitis with a heterogeneous liver with multiple rounded hypodense microlesions, slightly enhanced after injection of contrast product (**Figure 3 images A and B**). A laparoscopy was carried out, where the exploration found multiple whitish granulations scattered throughout the liver, the rest of the exploration was unremarkable (**Figure 4 images A and B**).

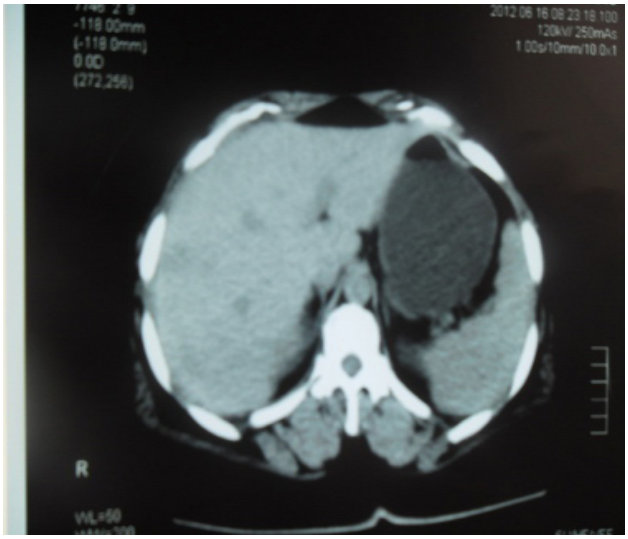

Figure 2: Abdominal scan in sagittal section without injection of the product showing hypodense formations.

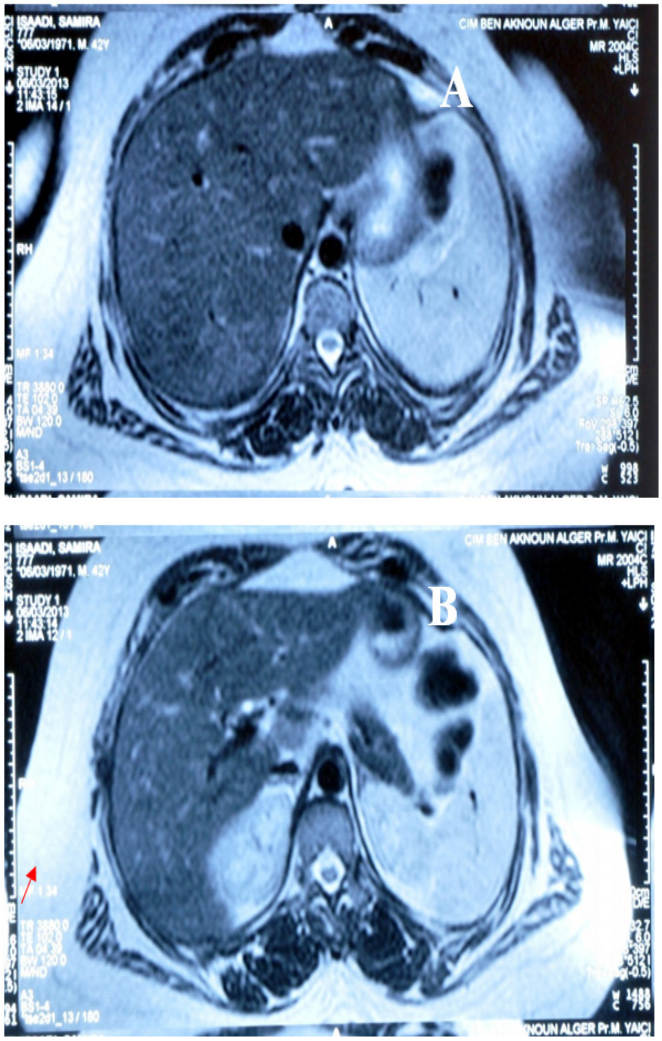

Figure 3: Abdominal scan after injection of contrast product in axial section showing contrast enhancement of liver nodules.

A cholecystectomy associated with a liver biopsy containing a whitish granulation was performed (**Figure 5**). The histological examination of the surgical specimen is that of chronic cholecystitis in acute post-lithiasic attack, while that of the liver biopsy showed a hepatic parenchyma site of a moderate steatotic overload with the presence of 03 gigantocellular epithelial follicles without caseous necrosis.

The etiological investigation of hepatic granulomatosis including: The metabolic, autoimmunity and infectious assessments were normal (anti-HCV antibodies, anti-mitochondria M2 antibodies, protein electrophoresis, enzyme conversion assay). pulmonary, upper and lower digestive endoscopy (oesogastroduodenal fibroscopy, ileocolonoscopy) were without notable features. However, the intradermal reaction to tuberculin was positive (phlyctenular) at 12mm. The search for BK by direct examination and culture on biopsies and gastric fluids was negative.

Abdominal MRI showed isointense T1-T2 hepatic micronodules suggestive of tuberculosis, sarcoidosis, or other after-effects. One month after the operation, bilateral oval, hard and painless cervical lymphadenopathy appeared, the cyto-puncture of which confirmed the nature tuberculosis of hepatic granulations.

2.4 Therapeutic intervention and follow-up

The patient was put on anti-tuberculosis treatment based

on her weight for nine months, combining Isoniazid 5 mg/kg, Rifampicin 10 mg/kg, Ethambutol 25 mg/kg and Pyrazinamide 30 mg/kg for two months and Isoniazid with Rifampicin for seven months with monthly clinical and biological monitoring. The evolution was favorable with apyrexia, weight gain, disappearance of the inflammatory syndrome after a few weeks, followed by that of lymphadenopathy and hepatic nodules.

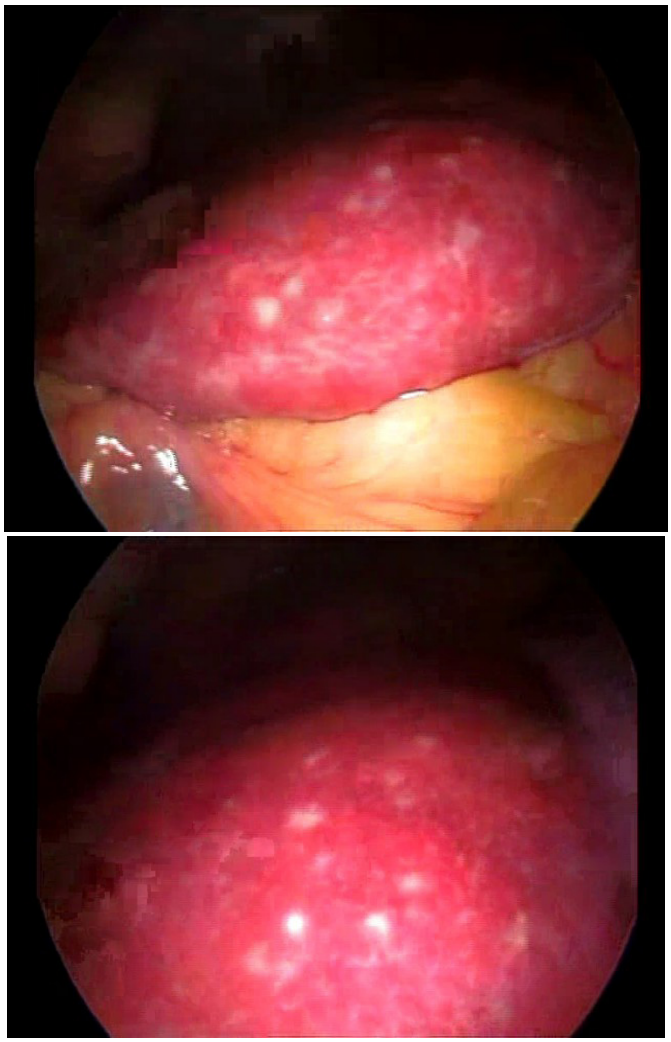

Figure 4: Images A and B showing whitish granulations in the liver during laparoscopy.

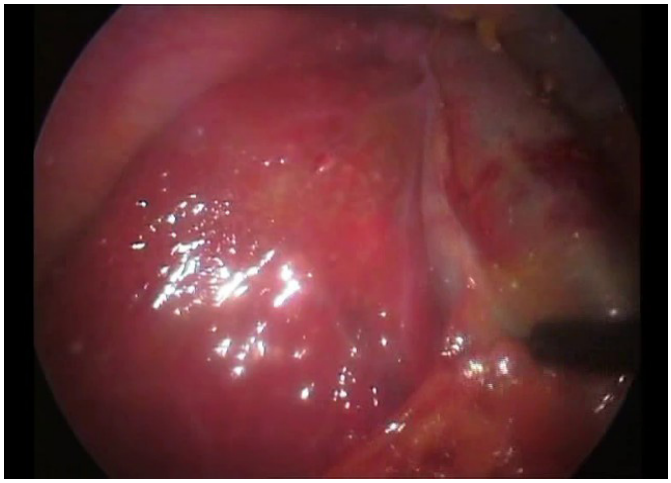

Figure 5: Biopsy of a Hepatic Granulation during Laparoscopic Cholecystectomy.

3. Discussion

Hepatic tuberculosis is often encountered in the context of multi-visceral involvement, rarely in isolated form, especially in immunocompetent patients[1,2]. It poses a real diagnostic problem even in endemic areas because of its nonspecific appearance of its clinical, biological and radiological signs[3]. It usually associates fever, general deterioration, weight loss, sometimes hepatomegaly with or without jaundice[5,6]. In our patient the discovery was fortuitous.

Biologically, the inflammatory syndrome is present in 50% of cases and can be associated with anicteric cholestasis in 29% of cases[7]. Tuberculin reactions are often positive. The detection of BK on biopsies by direct examination or by culture is positive in 50% of cases[8,9] whereas the amplification of BK by PCR in samples of hepatic tuberculosis is not still described in the literature. In our case the inflammatory syndrome is associated only with a strongly positive tuberculin reaction.

The contribution of imaging is interesting, but not very specific, and the micronodular form or miliary hepatic (small hypo-echoic, hypodense nodules with and without contrast enhancement) is the most common radiological form[10,11]. On ultrasound, nodules are not always visualized. In our observation, the lesions were hardly comparable to those described in the literature.

The histology is centered by the presence of epithelioid and gigantocellular granulomas, the appearance of which is not specific. caseification is present in almost all cases[12,13]. In our patient caseation is absent and the epithelio-gigantocellular follicles are bathed in a steatotic parenchyma.

The diagnosis is therefore histological and/or bacteriological, moreover it is often made on the coexistence of hepatic granulomatosis with another suggestive localization, in particular pulmonary[14,15]. This is the one we encountered, but the suggestive localization was lymph node and not pulmonary. Finally, the existence of isolated granulomatous hepatitis, in particular if there are general manifestations, can lead to a trial treatment which confirms the diagnosis. According to the WHO recommendations, the treatment of extrapulmonary localizations without damage to the central nervous system is based on quadruple anti-tuberculosis therapy for 02 months, followed by dual therapy for 04 months, the use of which encourages particular vigilance in the context of biological hepatic disturbance[16,17].

4. Conclusion

Primary hepatic tuberculosis is a rare disease, usually presents in the form of granulomatous hepatitis, its identification is difficult, even in endemic areas. The imaging data are not specific, a comparison with epidemiological and clinico-biological data is necessary. But only the use of puncture-biopsy of hepatic granulomas carried out during laparoscopy or by guided transparietal puncture with anatomopathological examination confirms the positive diagnosis.

5. Conflict of Interest

None declared.

6. Author Contributions

All authors approved the final version of the manuscript.

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