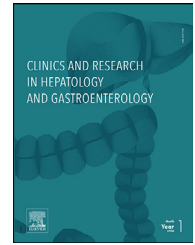




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LETTER TO THE EDITOR

Liver hypodense infectious lesions: Is it only bacteria, parasites or fungi?



KEYWORDS

Hepatitis;
 HSV1;
 infectious diseases

A 53-year-old woman presented with fever (39 °C), chest and abdominal pain, and vomiting for one week.

She is working as flight attendant and had travelled two weeks earlier to Abidjan where she had stayed in a hotel for 4 days.

On the clinical evaluation, her abdomen was soft but tender in the epigastric, left iliac and right hypochondrial area. Labs revealed a C-reactive Protein (CRP) at 212.2 mg/L (<5 mg/L) and white blood cell count at 3960/ μ L (4.000–1000/ μ L), abnormal liver enzymes (AST: 71 U/L (2 x upper limit normal (ULN)), ALT: 53 U/L (1,2 ULN), GGT: 76 U/L (1,5 ULN), PA: NL, CK: 544 U/L, total bilirubin: 0.3 mg/dL) and coagulopathy (INR: 1.75, TCA: 31.sec). An abdominal CT-scan revealed dilatation of extra and intra hepatic biliary ducts but no sign of cholecystitis.

As liver enzymes, fever and abdominal pain were increasing within the next days, an endoscopic ultrasound was performed and showed features compatible with cholecystitis without bile duct obstruction. She underwent a laparoscopic exploration and resection of her gallbladder. During surgery,

numerous hepatic white lesions were identified (Fig. 1 A) and biopsied (Figs. 1 B–D). Liver biopsies and peritoneal fluid were sent for microbiological culture.

A few days later, she complained of the onset of severe headaches and vomiting associated with her persistent abdominal pain. Numerous cutaneous and pelvic lesions appeared and were characterized by cluster of vesicles on an erythematous base.

A new abdominal CT-scan showed the apparition of several hypodense lesions in the liver (2–3 mm) Fig. 1 F.

The HSV-1 PCR was positive on the liver biopsy (Fig. 1 E), on blood samples, peritoneal fluid, and gynaecologic lesions and negative on cerebrospinal fluid. Bacterial cultures were negative on blood and liver samples. A treatment with acyclovir 10 mg/kg tid was given intravenously for 10 days and the evolution was favourable without complications or recurrence.

Hepatitis related to herpes virus are usually described in obviously immunocompromised patients (HIV, corticosteroid use, pregnancy, auto-immune disease) [1–4] but unusual in immunocompetent patients. Laboratory findings usually include important leukopenia, thrombocytopenia, and elevated liver enzymes without hyperbilirubinemia. Diagnosis is challenging as herpetic lesions are not always present. HSV PCR is the gold standard for the diagnosis. Hepatomegaly with several millimetric hypodense lesions are sometimes observed on abdominal CT-scan. As up to 74% of the HSV hepatitis cases result in acute liver failure with 90% of mortality, early treatment is crucial [5]. According to Centers for Disease Control and Prevention (CDC) guidelines, the treatment consists of acyclovir

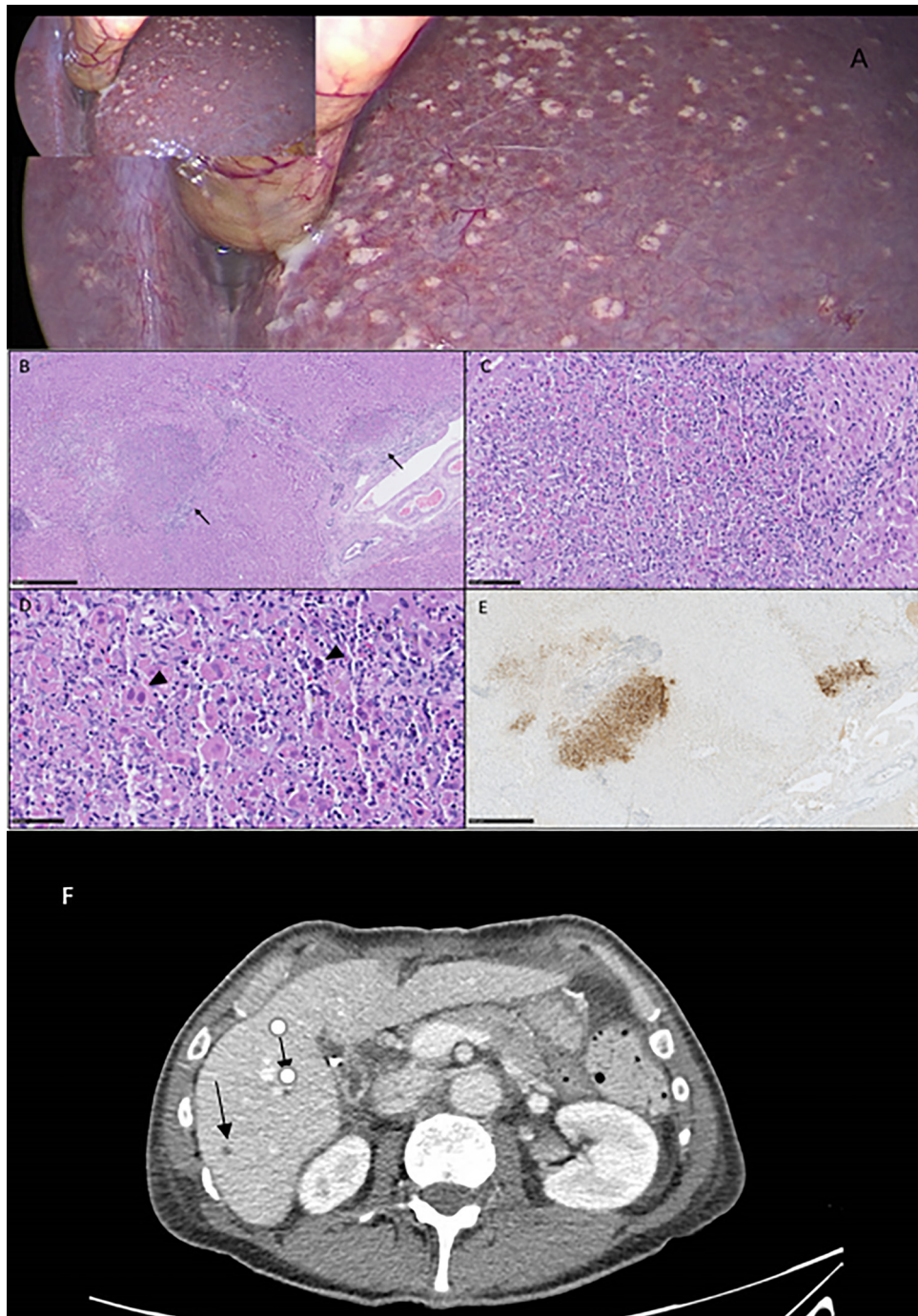


Fig. 1 (A) Laparoscopic exploration showing numerous intra-hepatic white abscesses.
(B) In the context of normal liver parenchyma some abscesses are seen (arrow) (H&E stain, 5x).
(C) These lesions are composed by cellular debris, inflammatory cells, necrotic hepatocytes and damaged hepatocytes (H&E stain, 5x).
(D) The damaged hepatocytes are focally multinucleated and present ground glass nuclei (arrow-head) (H&E, 40x).
(E) Immunohistochemistry for HSV is positive on the damaged hepatocytes in abscesses confirming the diagnosis of HSV related hepatitis (20x).
(F) Hypodense hepatic lesions on abdominal CT.

(5–10 mg/kg body weight every 8 h) given intravenously for 10–14 days.

Funding

There is no funding.

Declaration of Competing Interest

There is no conflict of interests.

CRediT authorship contribution statement

E. Hoornaert: Writing – original draft. **J.C. Yombi:** Writing – original draft. **L. Coubeau:** Visualization. **P. Baldin:** Visualization. **G. Dahlqvist:** Writing – original draft. **H. Yildiz:** Writing – original draft.

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Available online 4 February 2022