



IMAGENS EM GASTROENTEROLOGIA E HEPATOLOGIA

Gummatous hepatic syphilis simulating malignancy

Sífilis hepática simulando metastização hepática

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Case description

A 67 year-old female was observed in our gastroenterology department with a history of weight loss (10% total weight) during the previous year, malaise and anorexia. She denied fever and gastrointestinal symptoms. She was a divorced house wife living in a rural area in Portugal. She did not take any kind of medication and had no previous history of infectious diseases whatsoever.

On physical examination she appeared pale. The abdomen was tender and slightly painful on deep palpation of the right upper quadrant. A tender hepatomegaly with irregular borders was palpable two centimeters below the right costal margin.

Blood analysis revealed: haemoglobin 10.5 g/dL (11.5-15.5), leucocytes 6 100/ μ L (5000-13 000), platelets 310 000/ μ L (150 000-400 000), INR 1.02, C-reactive protein 102 mg/L (0-5), erythrocyte sedimentation rate 109 mm, aspartate aminotransaminase 57 U/L (<31), alanine aminotransaminase 47 U/L (<34), gamma-glutamyltransferase (GGT) 300 U/L (<38), alkaline phosphatase 950 U/L (40-150), total bilirubin 1.2 mg/dL (0.3-1.2), albumin 3.5 g/dL (3.5-5.2).

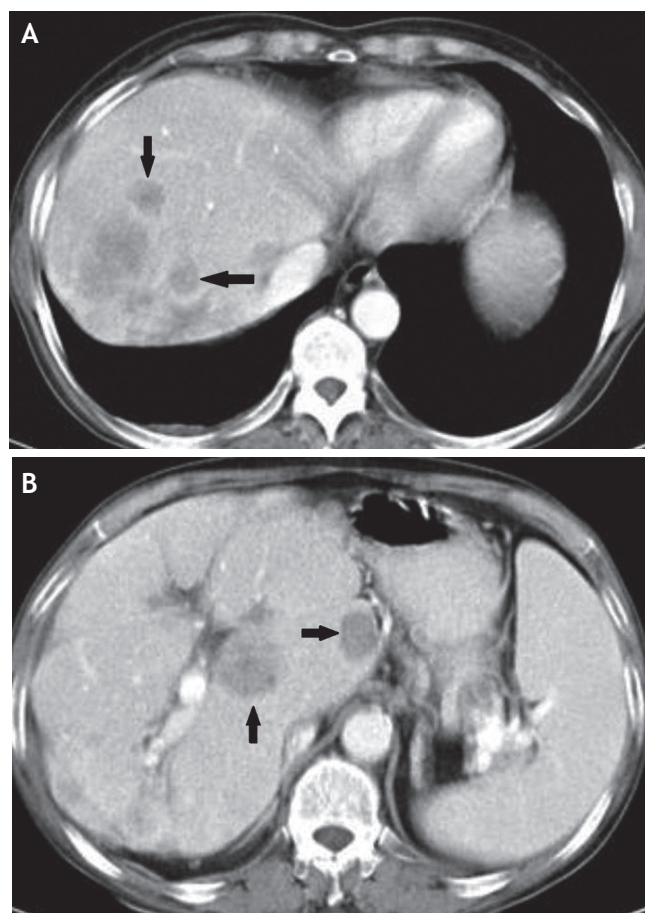
Ultrasonography showed multifocal hypoechoic hepatic nodules suggestive of malignancy and a normal spleen.

A more thorough laboratory work-up yielded negative serologies for the following viruses: HAV, HBV, HCV, HIV, EBV, CMV, HSV 1 and 2. Wright reaction and Venereal Disease Research Laboratory (VDRL) were non reactive; tuberculin test was negative; alpha-fetoprotein was normal.

The computed tomography (CT) scan showed an enlarged and heterogeneous liver with bosselated borders and multiple hypodense nodular lesions suggesting primary liver malignancy or secondary metastasis (Figs. 1A and 1B). The largest lesion was seen in the right hepatic lobe measuring 5.5 centimeters. Histological analysis after nodule biopsy showed an inflammatory infiltrate, multiple granulomas with hepatocellular necrosis and rare multinucleated giant cells (Fig. 2). There were no signs consistent with malignancy.

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Figures 1A and 1B Multiple hypodense nodular lesions (black arrows) in both lobes of the liver seen on CT-scan.

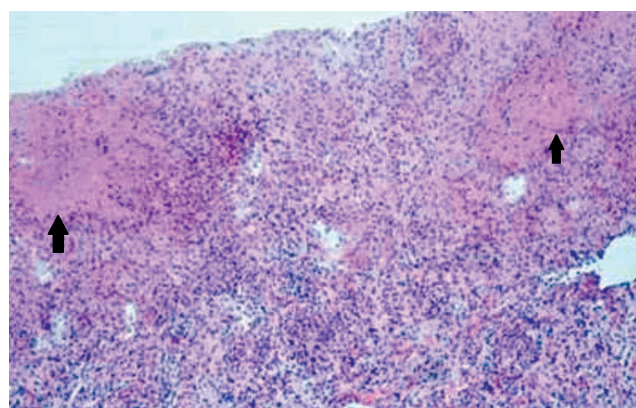


Figure 2 Biopsy specimen (hematoxylin & eosin) showing hepatic granulomas with central necrosis (black arrows).

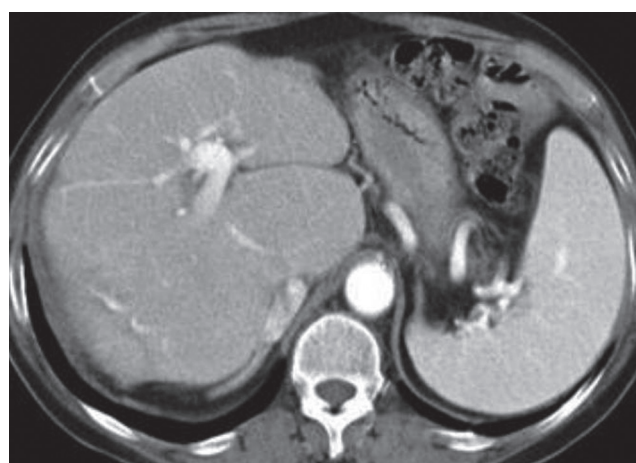


Figure 3 CT-scan demonstrates liver healing one year after successful treatment.

Repeat VDRL plus treponemal tests added new data: VDRL 1280 dils, TPHA 1/20480, FTA-Abs + with positive IgM.

Neurosyphilis was ruled out after lumbar puncture.

Antibiotic therapy was started with penicillin G 2.4 million units IM once weekly for three weeks, with excellent clinical improvement. Six months after treatment, serum VDRL titer was 128 dils and alkaline phosphatase/SGPT levels were normal. A follow-up CT-scan one year later did not show any remaining hepatic nodular lesions (Fig. 3).

In the antibiotic era, tertiary syphilis is a very rare disease.^{1,2}

Gummas are the hallmark of tertiary syphilis and can affect the skin, bones or internal organs.^{2,3}

Gummata in the liver are typically multiple and scattered through both hepatic lobes, simulating malignant lesions.^{2,3} Identification of bacteria in late syphilis necrosis occurs in 0 to 5% of all cases.³

Non-treponemal tests like VDRL lose diagnostic power (sensitivity ranging from 37-94%) in tertiary syphilis and measured alone can give rise to false negative results.⁴ For this reason, it is essential to obtain a highly accurate treponemal test such as FTA-Abs (Fluorescent Treponemal Antibody Test) or TPHA (*Treponema pallidum* hemagglutination assay) early during the investigation if suspicion of syphilis is strong.^{4,5}

Favourable response to treatment is monitored with a decrease in VDRL titer of at least four-fold, over a period of six to twelve months.^{1,2}

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Conflicts of interest

The authors do not have any conflicts of interest to disclose.

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