Fever of Unknown Origin: A Diagnosis against All Odds

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Clinical image description

A 29-year-old man with a history of mesenteric thrombosis, non-lithiasic pancreatitis and autoimmune disease (hepatitis, internal ear involvement, probable vasculitis) under immunosuppressive therapy, was admitted to the hospital with a 3-week history of fever, significant weight loss, anorexia, night sweats and abdominal pain.

Initial echographic study showed signs of chronic hepaticopathy, with no intraparenchymatous nodules. There was a progressive increase in inflammatory markers, with C-Reactive Protein (CRP)> 200 mg/L and leukocytosis> 15,000/µL, worsening normocytic/normochromic anemia and conjugated hyperbilirubinemia, as well as an increased Ca 19.9. There were no changes on autoimmune screen, blood cultures and serological tests. Endoscopic study was normal. A full CT scan was performed and revealed an enlarged liver with several hypodense lesions suggestive of pyogenic liver abscesses and hepatic hilar adenopathies (Figures 1 & 2).

Empirical antibiotic therapy with Piperacillin-Tazobactam and Metronidazole was started at the 1st week after admission and percutaneous drainage of the lesions as well as percutaneous biopsy were unsuccessfully attempted several times. The entire etiological study of the abscess-like lesions, including blood and aspirate cultures for bacteria, tuberculosis and fungi and serology testing for parasites, was negative.

In spite of the empiric broad-spectrum antibiotherapy, posteriorly escalated to Meropenem and Vancomycin, in addition to the suspension of the immunossuppressors, there was an evi-
dent clinical and analytical deterioration, with maintenance of fever, elevated inflammatory markers, hyperbilirubinemia and severe hypoalbuminemia, in addition to anemia submitted to transfusion therapy. Cholangio-MRI and PET-CT confirmed the liver changes and verified an increased number of lesions. After 1 month of hospitalization and no successful treatment, a surgical biopsy was performed. Histology revealed an adenocarcinoma probably of biliary origin.

A detailed clinical history leads to the performance of complementary tests that may reveal the diagnosis of a fever of unknown origin. In this case of fever in an immunocompromised young man, infectious diseases comprised the main hypothesis and antibiotic therapy was started as soon as imaging techniques strongly suggested the presence of liver abscesses. The rapid clinical deterioration kept questioning the diagnosis and asked for a further study. The neoplastic etiology is the most common cause of non-infectious fever and, against all odds, it was confirmed as the final diagnosis.

Figure 1: CT scan with an enlarged liver and several hypodense lesions suggestive of pyogenic liver abscesses.

Figure 2: CT scan showing a hypodense, polylobulated lesion measuring about 68x68 mm.