Concurrent cryptococcosis in a patient with Hodgkin’s Disease

Criptocose em um paciente com Linfoma de Hodgkin

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A 58-year-old man was referred to our facility with anemia, thrombocytopenia and splenomegaly that had been identified on computed tomography (CT). He stated that he had had recurrent fever (38°C to 38.5°C), fatigue, loss of appetite and weight loss. He was asymptomatic until four months before admission in our facility. On physical examination, the patient was afebrile. The head, neck and lungs were normal and, he had no signs of chronic liver disease. Petechiae were present over the legs. The neurologic examination showed no abnormalities. Blood levels of aminotransferases (AST and ALT), alkaline phosphatase, gamma-glutamyl transpeptidase, bilirubin, blood urea nitrogen, creatinine, glucose and serum LDH were normal. The white-cell count was 4.5 x 10⁹/L, with an absolute neutrophil count of 2.5 x 10⁹/L. The hemoglobin level was 9.5 g/dL and platelet count was 51 x 10⁹/L. The examination of a biopsy specimen of the bone marrow disclosed normal trilineage hematopoiesis; flow cytometry disclosed no abnormal cells and cultures for fastidious bacteria, mycobacteria and fungi were negative. A test for human immunodeficiency virus and tuberculin test were negative. CT of the chest showed no abnormalities. Repeated CT of the abdomen showed splenomegaly without retroperitoneum lymphadenopathy or hepatomegaly. After a rapid and progressive downhill course complicated by jaundice, renal failure and, a cardiopulmonary arrest, the patient died. At autopsy, he was found to have had Hodgkin’s disease (HD) in the spleen. The occurrence of Reed-Sternberg cells (Panel A, circle - Hematoxilin and Eosin) and the immunohistochemistry positivity for CD20, CD30 and the Epstein-Barr virus-encoded latent membrane protein 1 (Panels B, C and D respectively) proved the diagnosis of HD. Interestingly, a Cryptococcus infection was also observed in the spleen. The Cryptococcus appeared in the characteristic cystic lesions result of the abundant mucoid material secreted by the yeasts (Panel E, circles). A special stain with Mayer mucicarmine proved Cryptococcus infection (Panel F - Cryptococcus is the only fungi that has a mucicarmine positive capsula).

There are only a few reports of concurrent systemic cryptococcosis in patients with Hodgkin’s disease.⁴ Unusual sites of infection include the adrenal gland, heart, liver and spleen; Systemic mycosis caused by Cryptococcus frequently becomes life threatening in patients with cellular immunodeficiencies.⁵

References