Splenic mucormycosis

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Mucormycosis is a rare opportunistic infection caused by fungi of the order *Mucorales*. It has usually been associated with underlying conditions such as diabetic ketoacidosis, neutropenia, organ transplantation, and immunosuppressive therapy.[1] The clinical presentation is rhinocerebral or pulmonary disease in most cases.[2,3] Cutaneous, gastrointestinal, splenic and disseminated infections are much less common.[4,5]

A 64-year-old man was diagnosed as having multiple myeloma IgA-κ in June 1992. The patient was treated with melphalan and prednisone and an objective response was documented. He received treatment with melfalan and prednisone in July 1995, but only a partial response was observed. The patient remained asymptomatic without therapy during the next year and follow-up studies showed moderate pancytopenia (neutrophil count > 0.5×10^9/L) and a stable M-component. In November 1997 the patient was admitted because of rectal hemorrhage. A colonscopy revealed an adenocarcinoma in the left colon. At that time, chest radiography showed a round mass in the left lower lung lobe. Abdominal CT scan showed a hypodense mass of 4 cm of diameter in the spleen (Figure 1). Segmentary colectomy and splenectomy were performed. Histology of a cutaneous nodule and the spleen revealed necrotic abscesses containing hyphal elements compatible with a *Mucorales* infection (Figure 2). Therapy with liposomal amphotericin B (LAB) therapy (1.5-3.5 mg/kg/d) and G-CSF (300 µg/d) was started. After seven days of LAB therapy the patient died.

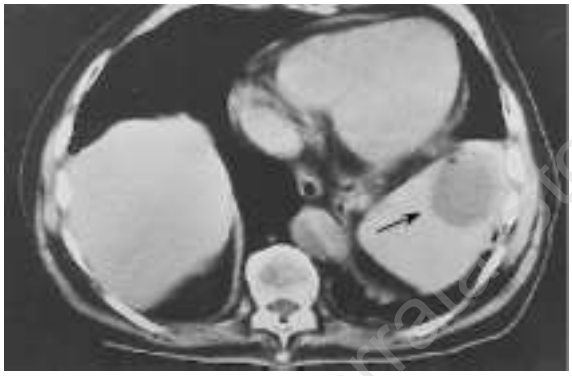

Figure 1. Abdominal CT scan showing a hypodense mass in the spleen (arrow).

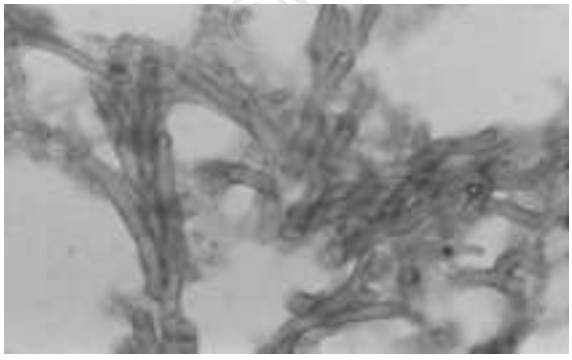

Figure 2. Spleen section stained with hematoxylin-eosin (x1000). Mucorales appears as broad, non- or sparsely-septate hyphae with irregular branching.

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Mucormycosis has a high mortality rate and diagnosis is usually made at autopsy.[6,7] The standard therapy of mucormycosis consists in high doses of amphotericin B and surgical resection of localized infection.[1,3] Some authors have suggested that the use of novel therapies such as LAB and G-CSF might improve the prognosis.[6,8] Unfortunately, our patient died despite surgical resection of an infectious focus, and treatment with LAB and G-CSF.

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