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CASE REPORT/CAS CLINIQUE

Intra-abdominal abscess: A clinical manifestation of African histoplasmosis

Abcès intra-abdominal : manifestation clinique d'histoplasmose africaine

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Summary African histoplasmosis is an endemic fungal disease, caused by *Histoplasma capsulatum* var. *duboisii*. The disease is generally limited to tropical areas of the African continent, namely West and Central Africa. It usually manifests as a systemic fungal infection and, rarely, the initial infection occurs through skin inoculation. We describe the clinical case of a patient from Guinea-Bissau, an endemic area of the disease, currently residing in Portugal. The disease presented as an intra-abdominal abscess. Surgical treatment resulted in the formation of a cutaneous fistula with a purulent discharge whose examination permitted the diagnosis of histoplasmosis. Antifungal drug therapy with amphotericin B and itraconazole was effective, with full recovery of the patient.

It seems that the initial infection of this patient occurred through cicatricial lesions on the abdominal skin, associated with African tribal scarification rituals.

Résumé L'histoplasmose africaine est une mycose endémique, dont l'agent est *Histoplasma capsulatum* var. *duboisii*. Cette maladie s'exprime habituellement comme une infection généralisée et se trouve limitée aux régions tropicales de L'Afrique Noire. L'inoculation cutanée de l'agent comme voie de transmission est rare. Nous décrivons le cas clinique d'un patient né en Guinée-Bissau, région endémique de la maladie, mais résidant au Portugal. La maladie se manifestait par un abcès intra-abdominal. Le traitement chirurgical a conditionné la formation d'une fistule cutanée qui éliminait du pus. L'examen direct de ce matériel a permis le diagnostic d'histoplasmose. Le traitement antifongique avec amphotericin B et itraconazole a permis la

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guérison du patient. Il semblait que l'infection par *H. capsulatum* var. *duboisii* était secondaire á des lésions cicatricielles dans la peau de l'abdomen. Ces lésions seraient le résultat de rituels tribaux de scarification de la peau.

Introduction

African histoplasmosis or *Histoplasmosis duboisii* is a mycosis having characteristic epidemiological, clinical and biological manifestations. Countries where the disease is endemic are mainly located in Equatorial Africa between the Sahara and Kalahari deserts. This region has high humidity and high average rainfall with very little variation in diurnal temperature [10]. In Portugal, cases of histoplasmosis are sporadic and generally occur in patients from Portuguese-speaking African countries, endemic for the disease [8]. The natural reservoir the etiological agent has not been conclusively identified, but onset of the disease has been linked with exposure to contaminated chicken excrement and bat infested caves. It is not yet clear if the fungus occurs in the soil. Clinical manifestations of the disease may not appear for several years after initial exposure. Disease symptoms are mainly characterized by cutaneous, subcutaneous, lymphatic, bone and joint lesions, having an indolent course. In HIV infected patients, cutaneous lesions moluscum contagiosum-like have been described [11]. On rare occasions the disease disseminates, presenting hepatosplenic and gastrointestinal manifestations [2,5]. To date, there is no standardized treatment or chemotherapy for the disease. This is mainly a result of the variable nature of its clinical manifestations and the continual advent of antifungal drugs.

Case report

A 38 year-old black male patient, born in Guinea-Bissau and resident in Portugal for seven years, was admitted to the medicine department of our hospital in March 1998 with several months complaints of anorexia, epigastralgia and post-prandial discomfort, without fever or other systemic symptoms. Clinical examination revealed a good general condition, abdominal tenderness in the epigastral area, without any detectable tissue masses or organomegalia. Hemogram, ESR, renal and hepatic function tests were normal, VRDL, anti-HIV1 and 2 antibodies were negative.

An abdominal CT-scan revealed a non-homogeneous liquid collection, with posterior calcifications, located in the pre-hepatic region, impinging upon the rectus anterioris muscle, with 12 × 5 × 6 cm in longitudinal, antero-posterior and transversal diameters, respectively. There was no evidence of hepatic, pancreatic or splenic lesions or presence of lymphatic abdominal nodules (Fig. 1).

In April 1998, he was submitted to surgery and this intra-abdominal abscess was excised. The lesion was located in the pre-hepatic area, continuous with the abdominal wall, without liver involvement. An histopathologic microscopic examination of the purulent material collected from the abscess stained with Gomori-Grocott, revealed several ovoid structures, 10—15 μm in diameter. These structures were initially interpreted as being some form of non-descript ''fungal structures''.

Based on this initial finding, the patient was treated with fluconazole, 100 mg oral bid. Two weeks later, he was readmitted to surgery, with a cutaneous sinus on his abdominal skin, discharging purulent material. An abdominal CT scan revealed a 3 cm lesion in the left hepatic lobe and, also, evidence of a liquid formation in the abdominal wall, with 5 cm diameter, containing a gaseous component. The lesion was surgically drained, with echography guidance. Fluconazole therapy was maintained. In spite of absence of other symptoms, the cutaneous fistula continued to discharge purulent material.

In August 1998, the patient was admitted to the Department of infectious diseases for a persistent cutaneous fistula and a normal remaining physical examination. Laboratory hematological and serological assays (antibodies anti-HIV 1 and 2) were normal or negative. A CT scan still revealed a thick walled 4 cm diameter abscess in the left hepatic lobe, in close proximity to the falciforme ligament, a normal hepatic parenchyma without hepatomegaly. No other apparent abnormalities were seen, namely in other solid organs.

Mycological direct examination using lactofenol cotton blue staining of the pus, collected from the fistula, revealed several lemon-shaped or ovoid, thick-walled, double contoured, with a narrow budding yeast cells, 12 to 15 μm in diameter, isolated or in chains. These morphological features are characteristic of *H. capsulatum* var. *duboisii* (Fig. 2). The fungus was then cultured at 26° and 37 C°. The dimorphic morphology of this fungus during mycelial phase at these temperatures allowed confirmation of species identification (Fig. 3).

The patient was then treated with amphotericin B, 0,2 mg/Kg body weight, administered by slow intravenous

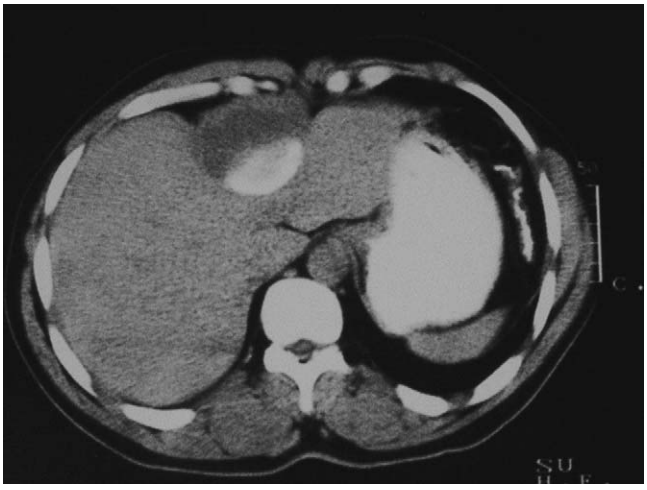

Figure 1 CT scan — intra-abdominal abscess. *Tomodensitométrie—abcès intra-abdominal.*