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Oozing sub-cutaneous masses due to histoplasmosis in a patient from Mali

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ABSTRACT

We presented the case of a 64 year old from Mali who was admitted to the hospital for "oozing sub-cutaneous masses". The diagnosis of African histoplasmosis was established by serology. Several courses of amphotericin B resulted in a cure with sequellae.

1. Case report

Mr. K. is 64 years old man from the Malinke ethnic group in Mali. He is a griot who has moved recently to France. He was admitted to the hospital for "multiple sub-cutaneous abscesses". The story of his disease started 10 months earlier in Bamako where he noticed a lump under his left nipple which became ulcerated in a few days. He consulted a traditional healer who prescribed a treatment which did not result in any improvement. Months later, another progressively growing lump appeared in his left shoulder with pain at this level. Other non-Western remedies were taken without success. Given the worsening of his condition some of the patent´s friend convinced him to see a tropical disease specialist.

The clinical exam revealed a fairly good health status (97 kg and 1.81 m) but Mr. K. had lost 15 kg in about 3 months. He was apyretic. Inspection showed a voluminous mass extending from the scapular to the deltoid areas. The skin was warm and palpation elicited tenderness. On the surface multiple ulcers could be seen from where a serous liquid was oozing. The mass was firm and barely shifted upon lateral pressure. From the left sub-mammary area to the left axilla there was another mass with ulcers and a third one could be found in the occipital area.

The lab tests showed the following:

Compete blood count (CBC): Within normal limits;

Erythrocyte sedimentation (ESR): 77/103 (1st/2nd hour);

Blood and urinary electrolytes: Within normal limits;

Fasting blood glucose, lipid profile, phosphorus and calcium: Within normal limits;

Bacteriological cultures from the oozing material: *Klebsiella* and *Staphylococcus*;

Fungal cultures: Negative;

Parasitological stool exam: Larvae of *Strongyloides stercoralis*;

X-rays;

Left shoulder: Important demineralization with lysis of the lower and external side of the shoulder blade and thickening of the adjacent soft issue;

Skull: Heterogeneous lacunae in the posterior fossa with heaving of the external tabula and bulging of the related soft tissue;

Thorax: Macro-nodular opacity in the left axilla which

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seems to be linked to the scapular mass and is probably extra-pulmonar;

Biopsy: Refused by the patient.

Before the end of his check up Mr. K. decided to leave the hospital against medical advice. A few days after release his serology of histoplasmosis came back positive. He was re-admitted and a treatment was started with amphotericin B. Also, a surgical operation was performed on his bone lesions. Multiple courses of amphotericin B were necessary but the osseous lesions regressed only partially.

2. Discussion

African histoplasmosis was discovered in 1945 and is caused by a dimorphous fungus called *Histoplasma duboisii*[1].The mode of contamination is not well known. This fungus has only been isolated in humans and monkeys and has never been discovered from the ground of endemic regions[2]. The port of entry of the pathogen in the body seems to be mucous or cutaneous[3]. The geographical distribution of histoplasmosis includes black Western Africa (Senegal, Mali, Burkina Faso, Ivory Coast), Central Africa (Chad) and Equatorial Africa (the Congos)[4].

African histoplasmosis essentially involves soft tissues, the skeleton and lymph nodes[5]. The sub-cutaneous lesions evolve on a chronic mode and can emerge in various ways: papulae, nodules, ulcers and/or abscesses with fistulae[6]. Osteo-articular lesions and adenopathies can mimic tuberculosis. When the bone lesions are located at the spine level they can be mistaken for Pott´s disease[7].

Disseminated forms of the disease are rare but very grave[8]. Spleen and liver infections by *Histoplasma duboisii* (*H. duboisii*) lead to death[9]. The lungs are exceptionally target organs for *H. duboisii*[10].

Diagnosis is based upon isolation of the fungus by aspiration or biopsy and direct microscopic examination which readily identifies yeasts of *Histoplasma duboisii*. They are free and extra-cellular. On histological slices and when dyed with periodic acid-shiff (PAS) or silver they look like voluminous giant cells. In culture milieus mycelium threads cannot be differentiated from *H. capsulatum*. The enrichment of the milieus will produce the typical big yeasts[11,12]. Inoculation to animal may be useful when the fungus cannot be detected and serology which has moderate sensitivity, is negative[13].

Treatment relies upon amphotericin B with its many and serious potential side-effects which require a strict monitoring of blood pressure, electrocardiogram and renal function. The total dose must exceed 2 g otherwise there is a risk of relapse. Repeated courses are often necessary as well as the ablation of tegumental and lymph node lesions[14]. An alternative drug is ketoconazole (per os)[15]. There is no known prophylaxis for histoplasmosis.

Conflict of interest statement

We declare that we have no conflict of interest.

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