Peritoneal Histoplasmosis about a Case and Literature Review

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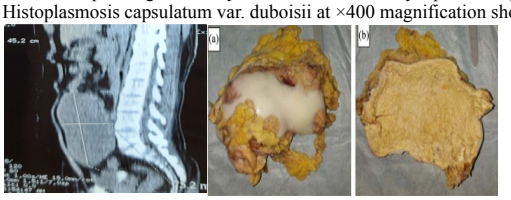
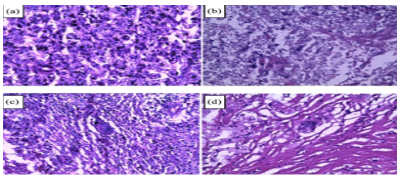
Introduction: Histoplasmosis caused by Histoplasma capsulatum var. duboisii (H. duboisii) is a profound opportunistic mycosis, endemic in Africa. The precise epidemiology of H. duboisii infection and its pathogenesis remains poorly understood. Histoplasmosis has a wide range of clinical presentations that depend primarily on three factors: fungal load, virulence and Histoplasma strain, and host immune status [1]. More commonly involving organs such as the liver, spleen, bone marrow and skin [2]. Peritonitis associated with H. capsulatum is extremely rare, with few cases reported in the literature. Risk factors for developing fungal peritonitis include previous antibiotic use, immunosuppression status, environmental exposure, intra-abdominal surgery, and extraperitoneal spread of fungal infection [3]. We report the first observation in Mauritania of an isolated peritoneal localization of H. duboisii histoplasmosis in an immunocompetent patient.

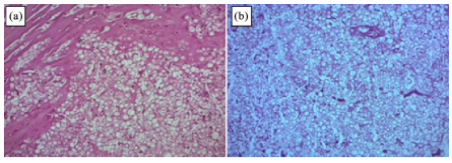
Patient and Observation: The 60-year-old male patient had emigrated from Mauritania to Guinea Bissau, Congo and Senegal; he had a history of pulmonary tuberculosis, treated and declared cured, and partial epileptic seizures treated with carbamazepine. The clinical examination noted abdominal pain giving the impression of heaviness. The remainder of the clinical examination, particularly pulmonary, neurological, lymph node and locomotor, was unremarkable. Abdominal computed tomography (CT) (Figure 1), sagittal section revealed a large mass with a large intraperitoneal fluid component with a finely calcified wall in places, located opposite the 3rd, 4th, 5th lumbar vertebrae, and plunging in the pelvis by its lower pole above the bladder, measuring 157 × 100 mm. Anatomopathological examination of the operative parts (Figure 2) revealed Histoplasma capsulatum var. duboisii stained with eosin hematoxylin at ×400 magnification shows a rounded or oval, corresponding to a bulky nucleus surrounded by a pseudo capsule producing a clear halo appearance (Figure 3(a)). Histoplasmosis capsulatum var. duboisii at ×400 magnification showing the yeast-like appearance with double contour

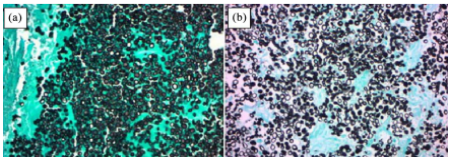




(Figure 3(b)). Epitheloid and gigantocellular granuloma, without necrosis, stained with eosin hematoxylin at 100× magnification (Figure 3(c)). Multinucleated giant cells mixed with yeast-like aspects dissociating fibrous tissue stained with hematoxylin-eosin at ×400 magnification (Figure 3(d)). Staining by Periodic Acid Schiff (P.A.S) stains these forms purple-pink, with the pseudo-capsule visible (Figure 4(a), Figure 4(b)). Gomori-Grocott silver impregnation at high magnification ×400 shows the wall stained in black of the yeasts in intrahistiocytic position dispersed in the necrosis (Figure 5(a)). And the

black-colored wall of the yeasts (Figure 5(b)).





The patient was operated on for the peritoneal mass, with simple postoperative treatment followed by treatment with itraconazole at a dosage of 400 mg/day for 14 days. The regression was favorable after 9 months of follow-up.

Conclusion: Histoplasmosis is a rare condition in immunocompetent patients, but not exceptional. The clinician should think about this when considering any peritoneal mass in a patient who has stayed in Central and West Africa.

References

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