

# Histoplasmosis diagnosed on bone marrow aspirate cytology: report of four cases.

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## **Abstract:**

Histoplasmosis, caused by two varieties of dimorphic fungi, *Histoplasma capsulatum* variant *capsulatum* and *Histoplasma capsulatum* variant *duboisii* is a systemic fungal infection. It has a worldwide distribution and is shown to be more prevalent in North America and Central America. Both variants occur in Africa. Disease spectrum ranges from asymptomatic primary infection to disseminated disease in immunocompromised patients. Since the upsurge of acquired immune deficiency syndrome (AIDS) and despite the availability of high active anti-retroviral therapy (HAART) many patients still present with opportunistic infections of which histoplasmosis is one. Four cases are presented; two infants and two adults. All had disseminated disease with multiple organ involvement and the disease was not suspected clinically. Diagnosis was made incidentally on bone marrow aspirate cytology. The two adult cases were HIV positive, one with CD4 counts of 132 cells/microlitre and was not on HAART. The other was on HAART but the CD4 had not been determined. One of the infants tested HIV negative and the others status was unknown. A high index of suspicion is required for diagnosis as the disease may mimic tuberculosis (TB) and other causes of hepatosplenomegaly such as visceral leishmaniasis. Laboratory diagnosis includes culture, direct staining, antigen and antibody detection. Antibody detection may give false negative in the immunocompromised patient. The infection responds well to antifungal agents (amphotericin B is the drug of choice) and life long maintenance therapy may be required in AIDS especially if CD4 counts remain less than 150 cells/microlitre. Histoplasmosis should be a differential diagnosis in immunosuppressed patients with unexplained fever, weight loss, hepatosplenomegaly and chest findings especially if not responding to anti-TB treatment.