

Images in Clinical Hematology

Bone marrow histoplasmosis-the hidden culprit in an immunodeficiency setting



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A 30-year-old male patient presented with complaints of fever, anorexia and hepatosplenomegaly for the past 3 months. He was seropositive for hepatitis C (HCV) and human immunodeficiency virus (HIV).

Laboratory investigation revealed pancytopenia with altered liver function.

Bone marrow aspirate and imprint smears appeared deceptively clean without a reactive background that one would expect in an infectious setting. A diligent search revealed an occasional macrophage showing intracellular oval globose yeast-like cells with a clear space or halo around the eccentrically placed nucleus. Haematoxylin and Eosin-stained sections of trephine biopsy showed similar organisms (Figure 1). So, the diagnosis of Histoplasmosis was made. The patient responded effectively to antifungal drugs (Amphotericin B).

Histoplasmosis is a systemic fungal infection caused by the dimorphic fungus *Histoplasma capsulatum*. The causative fungus persists in soil, infects through inhalation and

manifests in three main types – acute primary, chronic cavitary and progressive disseminated histoplasmosis. In India, the disease is endemic in the eastern part of the country.¹

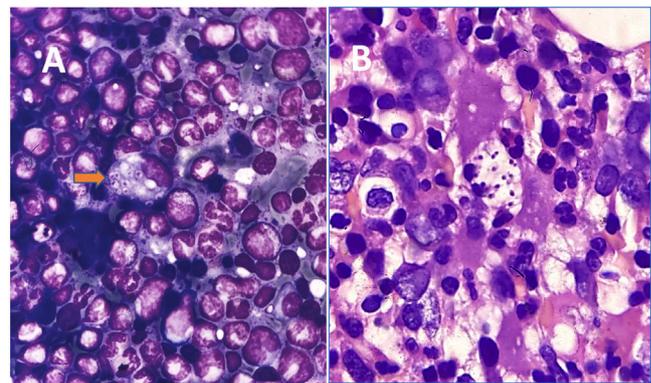


Figure 1 – Giemsa-stained imprint smear shows intracellular *Histoplasma* sp. in otherwise unremarkable bone marrow (arrow)(1000x) [A]. Bone marrow biopsy of the same patient shows similar intracellular organisms (1000x), the morphological hint being eccentricity of the nucleus. However, the thick cell wall is better appreciated in cytology smears [B].

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Conflicts of interest

Authors declare no conflict of interest.

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