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Images in Clinical Hematology

Systemic fungal infection by *Histoplasma capsulatum*: intracellular fungus in peripheral leukocytes



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A middle-aged woman was admitted to the Teaching Hospital of the Universidade de São Paulo, Brazil with pneumonia symptoms. She had fever, cough and weakness associated with epigastric pain. An abdominal computed tomography scan showed extensive adenopathy with an enlarged spleen.

Serology for HIV was positive and yeast forms were observed in the peripheral blood smear (Figures 1 and 2).

Diagnosis of histoplasmosis is made by the detection of *Histoplasma capsulatum* in sputum, blood or liquor but it is common to observe negative results due to technical

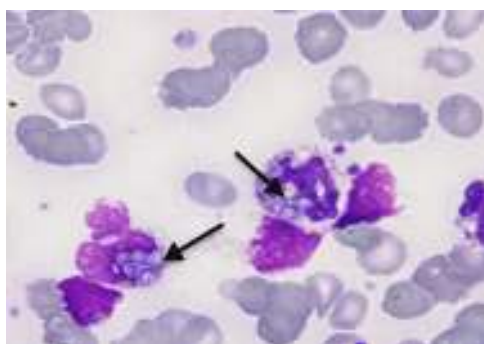


Figure 1 – Arrows show phagocytes containing one or more intracellular *Histoplasma capsulatum* (magnification: 1000x; May-Grünwald stain).

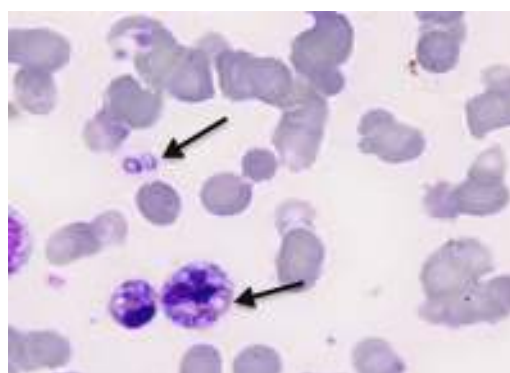


Figure 2 – Arrows show intracellular and extracellular *Histoplasma capsulatum* (magnification: 1000x; May-Grünwald stain).

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constraints wherein a reduced number of fungal forms are found in samples.¹ Imaging, diagnostic scanning tests and biopsy of target organs are important to differentiate from tuberculosis, sarcoidosis or metastatic carcinoma and lymphoma and usually the culture of biological samples and serological assays are performed to confirm the diagnosis.^{1,2} However, a blood smear is important to establish the diagnosis of disseminated histoplasmosis and, after *in vitro* contamination is excluded, the presence of both free and intracellular *H. capsulatum* should be reported.

Conflicts of interest

The authors declare no conflicts of interest.

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