

- *H. capsulatum* infection is acquired through the inhalation of the fungus microconidia aerosolized from soils contaminated by birds' or bats' guano
- After inhalation, the pathogenic yeast infects alveolar macrophages. In the immunocompetent host, the infection is contained by the development of cell-mediated immunity. In immunocompromised hosts, due to deficit cellular immunity the fungus can spread through the blood or lymph stream leading to disseminated histoplasmosis
- Disseminated histoplasmosis presents with severity ranging from isolated lymphadenopathy, hepatosplenomegaly to hemophagocytic lymphohistiocytosis (HLH)
- Major risk in AIDS is CD4 count of less than 150 cells/ μ L, however, by this time most patients develop other concomitant opportunistic infections. In our patient with a CD4 count of 4 cells/ μ L, histoplasmosis was the presenting feature which led to the diagnosis of underlying HIV infection
- HLH is a life-threatening disease in which a massive immune stimulation results in macrophages activation and hemophagocytosis. According to a recent review, 27 cases of HLH secondary to disseminated histoplasmosis were reported so far, with a mortality rate of 38% [6]
- Similar to our case, hyperferritinemia without HLH has also been reported in HIV with disseminated histoplasmosis
- The diagnosis of histoplasmosis can be obtained through examination of histological (tissue biopsy) or cytological specimens (bone marrow examination, fluids) along with special stains like PAS and GMS
- There are multiple other methods for the diagnosis of histoplasmosis including cultures, Matrix-Assisted Laser Desorption/Ionization – Time Of Flight (MALDI-TOF), antigen detection, immunization determination, serological tests and molecular biology-based tests.
- The gold standard for the identification of the pathogen is the culture demonstrating the thermal dimorphism of the fungus from yeast to mold and vice versa