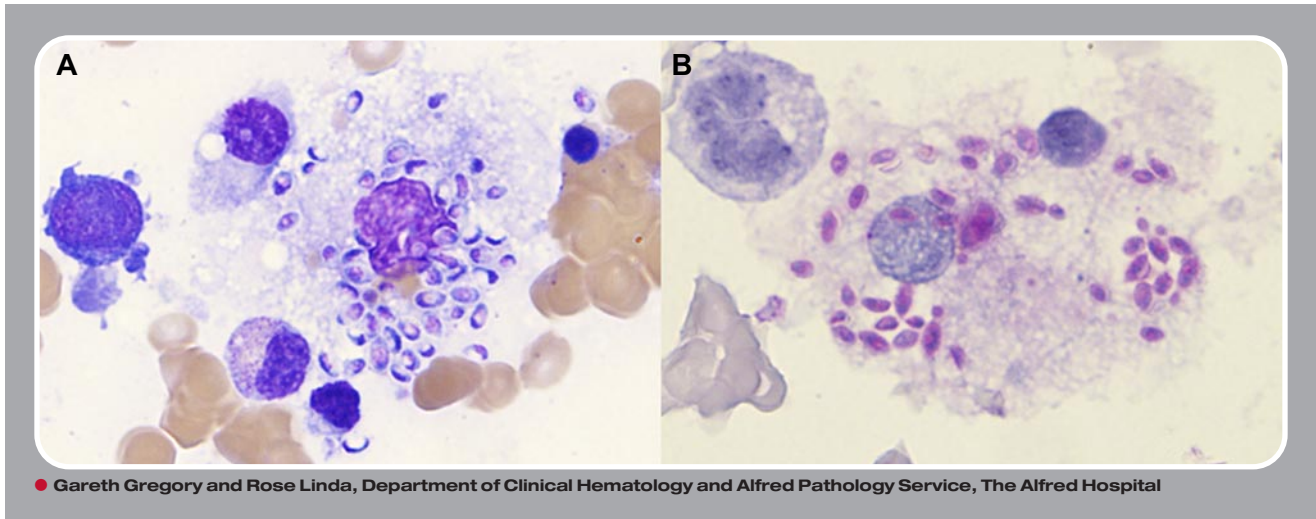


Disseminated histoplasmosis complicating HIV infection



A 44-year-old newly diagnosed HIV-positive man with CD4 count of $47 \times 10^6/L$ ($410-1545 \times 10^6/L$) was admitted to intensive care for management of acute renal failure, profound hypoglycemia, and hemodynamic instability in the setting of pentamidine treatment for *Pneumocystis jirovecii* pneumonia. A bone marrow biopsy was performed to investigate progressive pancytopenia (hemoglobin 65 g/L, neutrophils $0.41 \times 10^9/L$, and platelets $23 \times 10^9/L$). Inspection of the bone marrow aspirate revealed innumerable oval/crescent-shaped yeast cells in both intracellular and extracellular distribution, most prominently seen within marrow histiocytes (panel A). Periodic acid-Schiff positively stained the organisms (panel B). Comparison to the published literature and online images yielded a working differential diagnosis of histoplasmosis (*Histoplasma capsulatum*) or *Penicillium marneffei* infection. Images of the marrow were referred for expert review and deemed to be most consistent with histoplasmosis. *Histoplasma capsulatum* was confirmed from fungal culture of the marrow aspirate and PCR for fungal ribosomal RNA. The patient was treated with amphotericin and itraconazole and made a full recovery.

Histoplasma capsulatum and *Penicillium marneffei* are opportunistic fungi occasionally disseminated in AIDS patients. While an experienced microbiologist may differentiate the 2 infections with microscopy and the time to culture differs, molecular studies are required for definitive diagnosis.



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