

## DISSEMINATED CRYPTOCOCCUS: AN UNUSUAL PRESENTATION-A CASE REPORT

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### Abstract

**Introduction:** Cryptococcosis is a fungal disease affecting the respiratory and central nervous system in HIV-infected individuals, causing life-threatening symptoms and necessitating prompt diagnosis, with approximately 5% of infected individuals developing it.

**Case Report:** A 35-year-old HIV-positive male patient presented with abdominal pain, fever, and cough, without cervical lymphadenopathy. USG revealed multiple enlarged lymph nodes, and FNAC was performed.

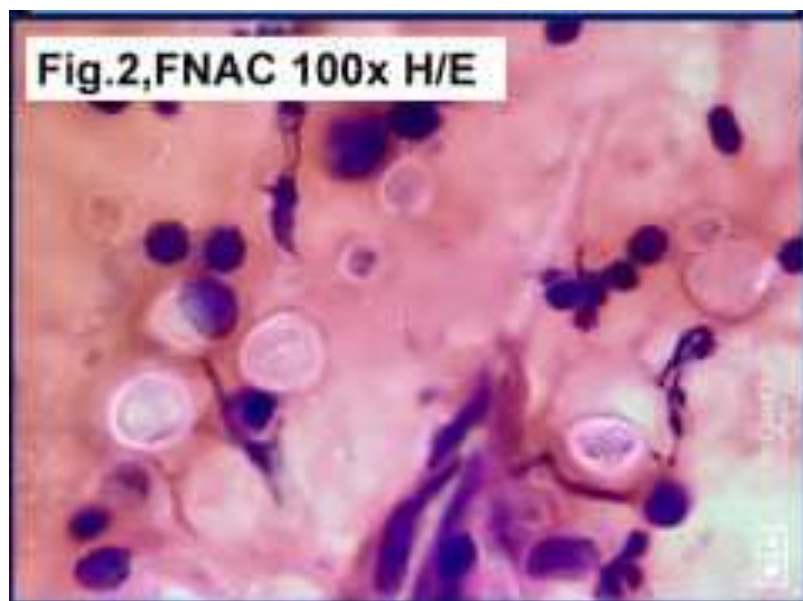
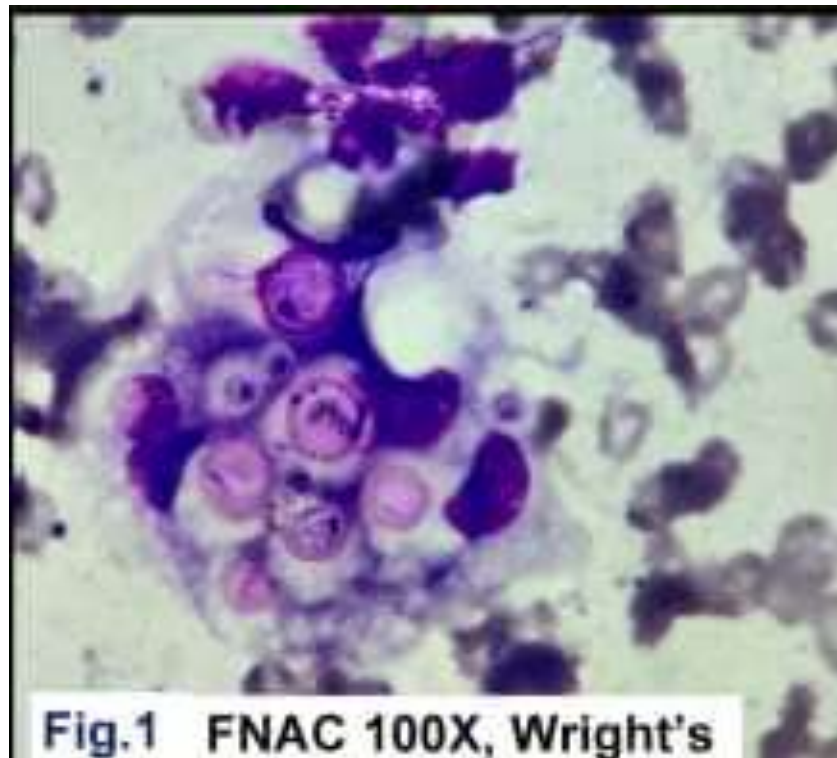
**Result:** Cytological examination revealed lymphocytes, histiocytes, granulomas, and necrotic material, along with budding yeast of *Cryptococcus neoformans*. PAS, GMS, Indian ink, CSF, and bone marrow tests confirmed *Cryptococci*.

**Conclusion:** FNAC is a safe and efficient technique for early diagnosis of Cryptococcal lymphadenitis, a rare presentation in lymphadenopathy, highlighting its potential for rapid treatment.

**Keywords:** FNAC, HIV, USG, CRYPTOCOCCUS

**INTRODUCTION** - Cryptococcosis is a common opportunistic fungal disease seen in Human immunodeficiency virus infected individuals. It is caused by encapsulated yeast *cryptococcus neoformans*. Usually affected sites include respiratory & central nervous system. Lymph node involvement as a presenting feature is not a common manifestation. Disseminated cryptococcosis is a life threatening disease, hence a prompt & early diagnosis is mandatory<sup>1</sup> Approximately 5% of HIV infected individuals develop disseminated cryptococcosis<sup>4</sup>.

**CASE REPORT** -A 35 years old male patient with known case of HIV, came to cytopathology section, with complaints of pain abdomen since 5 days, fever & cough since 3 days. He had no cervical lymphadenopathy. Patient was on antiretroviral drugs. USG abdomen showed multiple enlarged lymph nodes in celiac, pre & para-aortic, & mesenteric lymph nodes. USG guided FNAC of mesenteric lymph node was done.



**Fig.2, FNAC 100x H/E**

**RESULT**-Cytological examination of USG guided FNA smears showed cellular smears comprising of polymorphic population of lymphocytes, histiocytes, few granulomas & necrotic material. Many budding yeast form of cryptococcus neoformans also seen amidst the lymphoid cells (Fig. 1,2 & 3). PAS(Fig.4), GMS & Indian ink confirmed cryptococcus. CSF examination & bone marrow (Fig.6&7)also showed Cryptococci. Final diagnosis was concluded as Disseminated Cryptococcosis.



Fig.3 FNAC Wright's, 100x

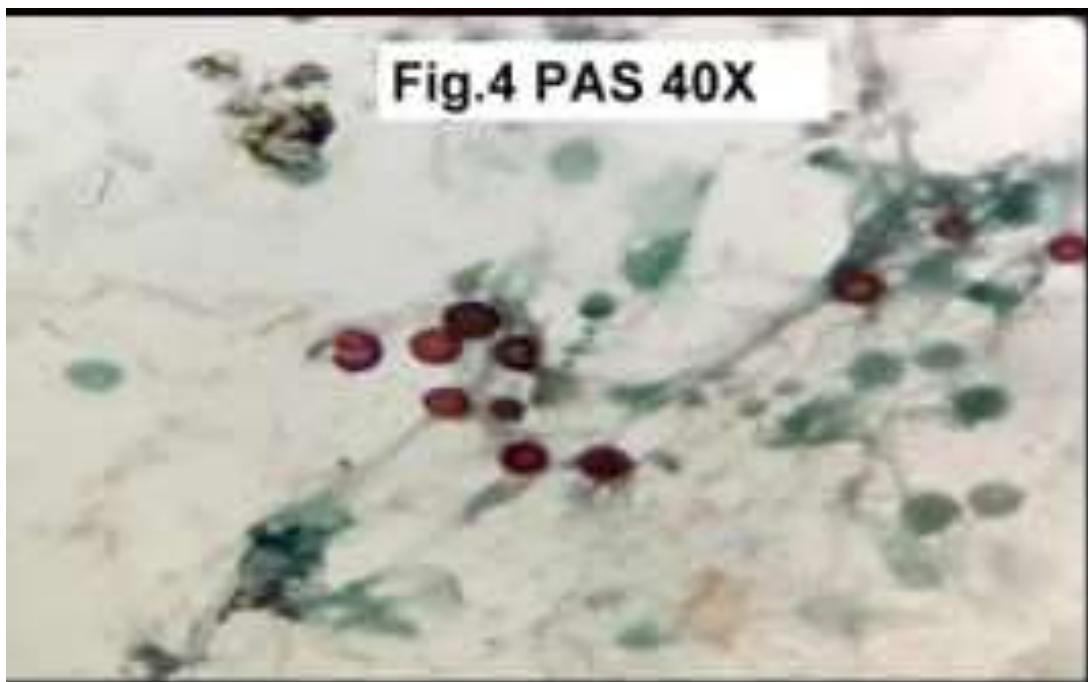
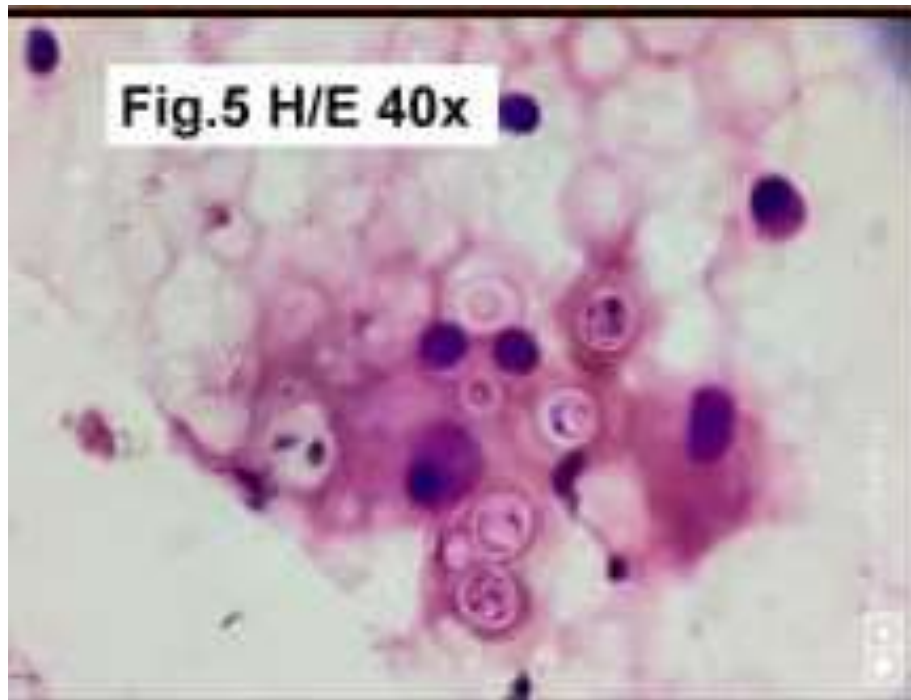
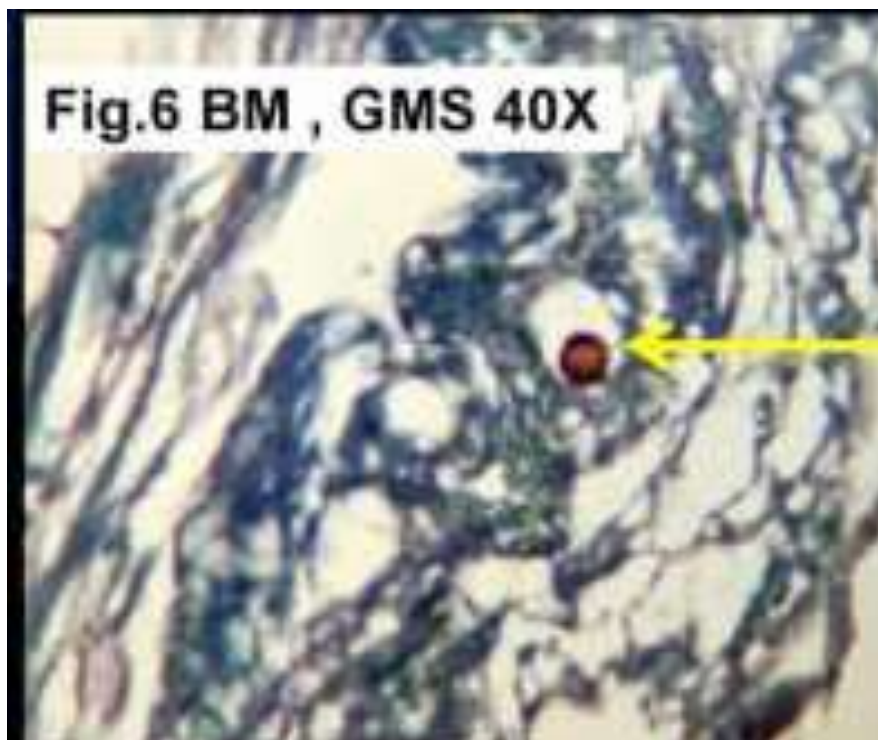


Fig.4 PAS 40X



**Fig.5 H/E 40x**

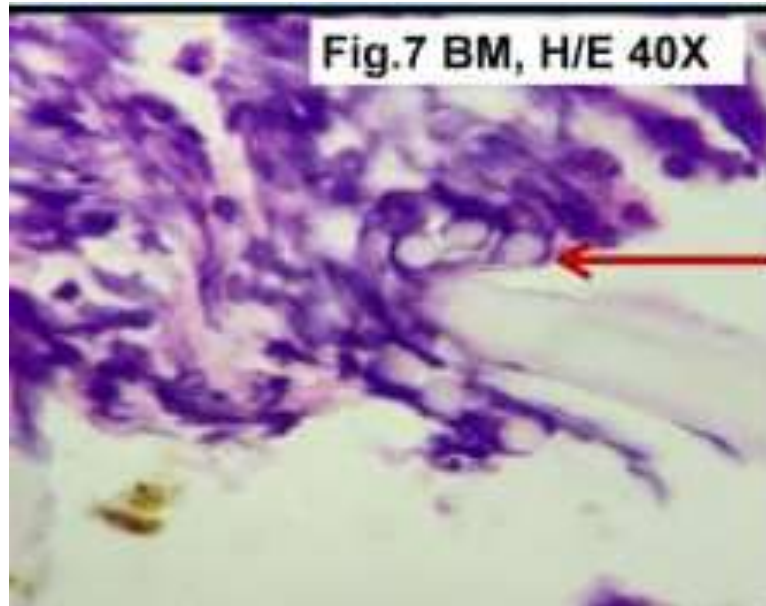
**Discussion:** Cryptococcus lymphadenitis is an unusual form of extrapulmonary cryptococcosis and is one of the AIDS defining criteria as per Centre for Disease Control and Prevention guidelines<sup>2</sup>. An expeditious diagnosis is of utmost importance, since once cryptococcal infection disseminates, it becomes life threatening<sup>1</sup>. Lymph node FNAC is an ideal first line diagnostic modality that can provide a definitive diagnosis considering the potential vast differential diagnosis in immunocompromised patients, resulting in prompt initiation of treatment<sup>1</sup>.





**Fig.6 BM, GMS 40X**

**CONCLUSION**-Lymphadenopathy presents an opportunity for a quick & efficient way to reach an early diagnosis through FNAC of involved lymph node. Mesenteric cryptococcosis is a rare presentation. Hence, FNAC is a safe, simple useful technique which can expedite an accurate & rapid diagnosis of Cryptococcal lymphadenitis. This case is highlight of this unusual presentation.



**Fig.7 BM, H/E 40X**

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