Case Report

Cryptococcal lymphadenitis diagnosed on FNAC – Primary manifestation in AIDS patient

Abhishek Verma[1], Somya Sinha[2], Arun Kumar Verma[3]

[1]Department of Laboratory Medicine, Rajendra Institute of Medical Sciences, Bariatu, Ranchi, Jharkhand, India.
[2]Department of Obstetrics and Gynaecology, Seth GS Medical College and KEM Hospital, Mumbai, Maharashtra, India.
[3]Department of Pathology, Rajendra Institute of Medical Sciences, Bariatu, Ranchi, Jharkhand, India.
Correspondence to: Abhishek Verma, E-mail: drabhishekverma4@gmail.com

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Abstract

Cryptococcal infection involving the lymph node is a rare entity and is usually observed in disseminated cases. Life-threatening condition is commonly in patients suffering from acquired immunodeficiency syndrome (AIDS) or immune suppression forms. A case of cryptococcal lymphadenitis in AIDS was reported in the present paper, diagnosed by fine needle aspiration cytology (FNAC) of the involved lymph node.

KEY WORDS: Cryptococcal infection, lymphadenitis, AIDS

Introduction

Cryptococcal infection is life-threatening disease commonly in patients with acquired immunodeficiency syndrome (AIDS) and other forms of immunosuppression.[1] Cryptococcal lymphadenitis is not a common primary manifestation in either immunocompromised or immunocompetent patient.[2,3] Primary site of infection in humans is almost always respiratory tract but secondary involvement of central nervous system, lungs, lymph nodes, skin, bone marrow, gastrointestinal tract, liver, retina, spleen, and other parts of the body is also common.[4] Once cryptococcal infection disseminates, it becomes life threatening. Expeditious diagnosis is of the utmost importance.

Case report

A 33-year-old male was referred to cytology clinic with enlarged lymph nodes on right side of the neck. On examination multiple matted cervical and supraclavicular lymph nodes measuring 0.5–3 cm were palpated. Patient had a history of fever, weight loss since 15 days. Clinical suspicion was tuberculosis. HIV was reactive by the ELISA method. Fine needle aspiration (FNA) yielded necrotic material. Material obtained was smeared on glass slides and stained with Leishman stain and Z.N. stain. Smears were paucicellular, with clean background and few lymphocytes and many scattered ovoid encapsulated organisms of varying sizes, 5–15 µm in diameter were seen. Mucicarmine showed the positivity for cryptococcal capsule with vague empty appearance of internal structure of the organisms. Z.N. stain showed no AFB (Figures 1 and 2).

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Discussion

Cryptococcosis is opportunistic infections associated with AIDS, once it disseminates, it becomes life threatening, hence early diagnosis is of the utmost importance. In humans the spectrum of disease varies from asymptomatic colonization of the airways to meningitis presenting with fever to pneumonia like symptoms and in severe conditions with acute respiratory distress syndrome. In recent times, cryptococcal meningitis and disseminated cryptococcosis gained importance because of rapid rise in the incidence of HIV infection worldwide.[5–7] Cryptococcal lymphadenitis is an uncommon form of extrapulmonary cryptococcosis in either of the immunocompromised or immunocompetent patient. This infection being one of the defining criteria of AIDS according to the Centre for Disease Control and Prevention guidelines.[8] Cryptococcus organism are yeast like budding fungi, appear as ovoid to spherical thick-walled surrounded by gelatinous capsule difficult to

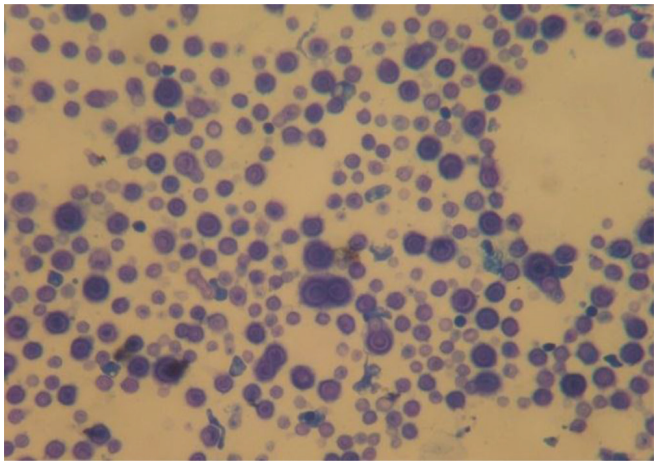

Figure 1: MGG stain showing cryptococcal capsule (40×).

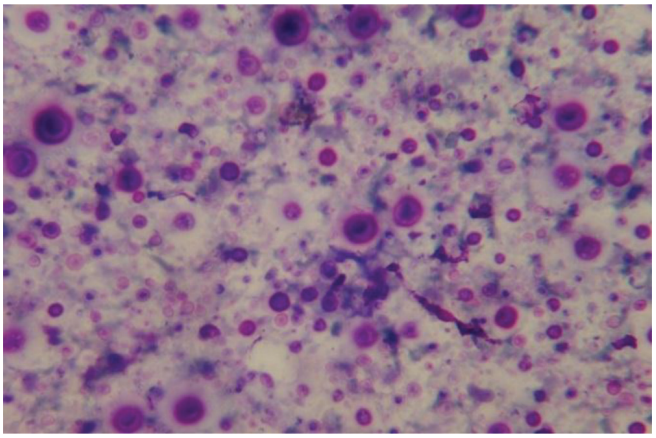

Figure 2: Mucicarmine stain showing positivity for cryptococcal capsule with vague empty appearance of internal structure of the organisms (40×).

differentiate from Blastomyces. Unlike other fungal infections, granulomatous and inflammatory responses are very mild as in our case. Organism load is variable, more in immunosuppressed groups as compared to immunocompetent groups which were seen in our case too. Laboratory diagnosis of this infection includes demonstration of crytococci by using special stains such as India ink, PAS-AB, mucicarmine stains, and serological detection of cryptococcal antigens by the agglutination latex method and culture.

FNAC does provide economical and rather quickly accomplished cytodiagnostic result.[9,10] This case is presented to highlight infection caused by cryptococci presenting mainly with lymphadenopathy.

Conclusion

Lymph node FNAC is an ideal first line diagnostic technique that can provide a definitive diagnosis of cryptococcal infection for promptly initiating treatment in case of cryptococcal infection presenting with lymphadenitis.

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