FNAC DIAGNOSIS OF CRYPTOCOCCAL LYMPHADENITIS: A CASE REPORT

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ABSTRACT
Cryptococcosis is a life menacing, unscrupulous fungal ailment in HIV infected individual. Pulmonary, intestinal, bone marrow and retinal involvement have been labelled. But there are only few gossips of lymphadenopathy laterally with cryptococcal meningitis. We report a case of cryptococcal meningitis with lymphadenitis, which was spotted by FNAC of the tangled lymphnode; which exposed nascent yeast cells and Cryptococcus neoformans Lymph node engrossment in cryptococcosis is considered to be infrequent. Therefore a swift verdict is obligatory for early instigation of specific conduct.

INTRODUCTION
Human Immunodeficiency Virus (HIV) infection has arisen as a global epidemic and India has a substantial share of this universal burden (Tahir et al., 2007). Cryptococcosis caused by encapsulated yeast Cryptococcus neoformans is a life-threatening opportunistic fungal disease affecting 7-10 % of Acquired Immunodeficiency Syndrome (AIDS) patients (Srinivasan R et al., 2010). Primary contamination starts in the respiratory tract but secondarily involves the central nervous system, skin, bone marrow, gastrointestinal tract, retina and reticuloendothelial system (Das et al., 2002). There are very few reports, however, of cryptococcal lymphadenitis as a presenting feature. Fine Needle Aspiration Cytology (FNAC) of involved lymphnode is a superlative first line diagnostic technique and provides an inexpensive and rather speedily proficient cytodiagnosis of cryptococcal lymphadenitis.

Case Report
A 12 years old boy was hospitalised with foremost complaints of fever, generalised weakness, headache, vomiting, and cervical lymphadenopathy of 8-10 days duration. On admission during serological investigation he was found to be positive for HIV 1. Both his parents were examined and were positive for HIV infection. There was no antiquity of blood transfusion given to the patient. On examination, he was of thin built and poorly nourished with cervical lymphadenopathy, firm mobile and non-tender. His blood investigations revealed haemoglobin level of 9.4 gm %, total leukocyte count of 2300 cells/cumm. Erythrocyte sedimentation rate (ESR) by Westergrens method was 67 mm at the end of one hour. Biochemical investigations were within normal limits. CD4 count was 36 cells /cumm. His USG abdomen showed multiple enlarged mesenteric lymphnodes. On CT head no specific lesion. CSF examination showed yeast forms of Cryptococcus. Fine needle aspiration of the cervical lymph node was performed. Smears studies shows few encapsulated budding yeast cells of varying sizes surrounded by halos. There were a few lymphocytes, macrophages and neutrophils seen in the background without any granulomas. Ziehl Neelsen staining did not reveal any acid fast bacilli, ruling out any coexisting tuberculosis infection. A diagnosis of cryptococcal lymphadenitis was made on FNAC smears.
DISCUSSION

Cryptococcosis is one of the opportunistic infection in HIV/AIDS and therefore a prompt diagnosis is of the utmost importance since once cryptococcal infection disseminates, it becomes life threatening (Garbyal et al., 2012). The primary site of infection in humans is virtually always pulmonary, following inhalation of the yeast of the fungus *Cryptococcus neoformans* which is found universal in soil contaminated with pigeon or other bird droppings (Andola et al., 2012). In humans, the spectrum of the disease varies from asymptomatic colonization of the airways to meningitis and other serious diseases, fever to pneumonia and less commonly lymph node enlargement. In our case, patient presented with fever, with central nervous system involvement. Cryptococcal meningitis and disseminated cryptococcosis have added importance recently because of the rapid rise in the world wide incidence of HIV infection.

Cryptococcal lymphadenitis is an uncommon form of extra pulmonary cryptococcosis, which is one of the ‘AIDS Defining Criteria’ according to the Centre for Disease Control and prevention guidelines (Schneider et al., 2008). The cytological specimens in which cryptococcus is found include cerebrospinal fluid, sputum, bronchial washings and FNAC smears from lymphnodes, thyroid, spleen, adrenals, bone and lung (Lee et al., 2001).

Cryptococcal organisms are 5-15 µm, ovoid to spherical with narrow based budding, bounded by a mucopolysaccharide capsule. These capsules are identified by special stains like PAS, mucicarmine, Gomori's Methanamine Silver (GMS) and India Ink Preparation. Unlike those in other fungal infections, the granulomatous and other inflammatory reactions are very negligible or absent. Although, culture is important for identification of the pathogenic species, diagnosis of cryptococcosis can be definitely made on cytologically obtained smears when the mucopolysaccharide capsule is visualised with special stains (Suchitra et al., 2008). In present case, diagnosis of cryptococcal lymphadenitis was made on FNAC. In the present case, there was no history of blood transfusion given to the patient and / or contact of patient with known HIV individual. Hence there is a strong suspicion of transplacental transmission of HIV in our case.

Lymph node FNAC can thus be an unpretentious and suitable technique in the identification of fungal infections. Its utility is enhanced by the capability to instantaneously prepare smears and simultaneously obtain samples for cultures. Identification of these organisms, with or without cellular reaction can lead to a rapid diagnosis and outstandingly an early commencement of specific and life – saving management.

REFERENCES