ABSTRACT
Cryptococcal infection most commonly affects the lung, meninges, and skin. The involvement of lymph node in cryptococcosis is considered to be rare entity and disseminated cryptococcosis is life threatening disease seen more commonly in immune-compromised patient chiefly affecting cervical and mediastinal lymph nodes. We present the case of Cryptococcal lymphadenitis diagnosed by fine needle aspiration cytology of involved cervical lymph nodes in acquired immune deficiency syndrome (AIDS) patient. Aspirated material stained with Hematoxylin & Eosin stain and Light microscopy show many rounded capsulated structures with clearing zone (Cryptococcus) which was confirmed by Periodic acid Schiff (PAS) stain.

KEYWORDS: Cryptococcal, Acquired Immunodeficiency syndrome (AIDS), fine needle aspiration cytology (FNAC).

INTRODUCTION
Cryptococcosis is an opportunistic fungal infection caused by the encapsulated yeast Cryptococcus neoformans.[1] Primary infection usually occurs through the respiratory system but it can disseminate to central nervous system (CNS), skin, kidney, bone and other viscera. Disseminated cryptococcosis is a life threatening disease seen more commonly in patients with acquired immune deficiency syndrome (AIDS) and other forms of immunosuppression.[2] Cryptococcosis occurs in about 7% of acquired immunodeficiency syndrome (AIDS) patients.[3] Fine needle aspiration cytology (FNAC) of Cryptococcal lymphadenitis show many rounded capsulated fungal structures with clearing zone which is confirmed by Periodic acid Schiff (PAS) stain. Diagnosis of Cryptococcal lymphadenitis by FNAC provides cost effective and quick diagnosis for faster treatment.

CASE REPORT
A 31 year old male patient was admitted in TB chest department with chief complaint of fever and altered sensorium for 4 days. Patient had history of weight loss since one month. Patient was a known case of HIV infection. He had no history of seizure, nor any focal neurological deficit, head injury, chronic cough.

On examination 2-3 enlarged lymph nodes measuring 0.8-1.0 cm in right supraclavicular region was palpated. Axillary or inguinal lymph nodes were not palpable. Clinically tuberculous meningitis was suspected. His blood investigations revealed hemoglobin level of 7.1gm%, total leukocyte count of 4200 cells/cu mm and CD4 counts of 67 cells/cu mm. Patient was referred to our cytopathology laboratory for lymph node FNAC.

Fine needle aspiration of supraclavicular lymph node was performed and yielded pus like material. Prepared smears are stained with Hematoxylin & Eosin (H & E) stain and one smear was stained with Ziehl-Neelsen (ZN) stain for detection of acid fast bacilli (AFB). Smears stained by H & E stain revealed predominantly mature lymphoid cells with few histiocytes and there were many rounded capsulated structures with clearing zone (fungal lesion- cryptococcal type) (Fig. 1) and degenerated granulomas with eosinophilic necrotic material also evident. (Fig.2) Ziehl-Neelsen (ZN) staining did not reveal any acid fast bacilli, so ruled out coexisting tuberculous infection. A Diagnosis of Cryptococcal lymphadenitis was made on H & E stain smears and with help of PAS stain (Periodic acid Schiff) (Fig. 3).

Fig. 1- H & E stained FNAC smear 40X Showing rounded capsulated structures with Clearing zone (Cryptococcus).
and other inflammatory cell responses are very mild which was seen in our case. Organism load is variable, more in immune-compromised as compared to immunocompetent patients.

Laboratory diagnosis of Cryptococcal infection includes the use of special stain such as India ink, periodic acid Schiff, Alcian blue and mucicarmine stains. Serological detection of Cryptococcus antigens by latex agglutination and culture are also used. In our case numerous budding yeast cells surrounded by haloes were seen. Hence, the diagnosis of cryptococcosis can be made by cytology with H & E and PAS stains.

CONCLUSION
Cryptococcal fungal infection is rarely seen in lymph nodes especially in FNAC findings as it was found in our case. So diagnosis of Cryptococcal lymphadenitis should be kept in mind whenever patient is immune-compromised and no other infective pathology findings are seen. Again special stain is helpful for final confirmation of exact typing of fungal lesions. FNAC can thus be a simple and useful technique in the diagnosis of fungal infection. Identification of these organisms by FNA helps to initiate prompt specific and life saving treatment and reduce morbidity and mortality.

REFERENCES