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Case Report

Histoplasmosis Presenting As Isolated Lymphadenopathy In HIV Positive Patient: A Case Report.

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Abstract

Histoplasmosis most commonly occurs in immunocompromised patients, primarily affecting lungs. Isolated extra pulmonary manifestations are rare even in Human Immunodeficiency Virus (HIV) positive patients.

Case Description: A known HIV positive, 44 years Male patient presented to Out Patient Department with complains of pain abdomen, fever and loss of appetite for one and half months. On examination, multiple palpable tender nodes were seen in bilateral inguinal regions. USG Guided Fine Needle Aspiration Cytology (FNAC) ordered from the lymph node yielded pus like material. Chest radiograph was normal. Smears examined showed epithelioid cell granulomas along with plenty of extracellular as well as intracellular organisms showing morphological resemblance to Histoplasma species.

Conclusion: Though rare, a possibility of Histoplasma lymphadenitis should always be kept in mind even with normal chest radiographs in HIV patients presenting with lymphadenopathy. FNAC is a very simple, cheap and rapid procedure for diagnosing the same.

Keywords : Fine Needle Aspiration Cytology, Histoplasmosis, HIV, Lymphadenopathy.

INTRODUCTION

Histoplasmosis is an opportunistic infection caused by fungal organism Histoplasma capsulatum. Disseminated Histoplasmosis, also known as extra pulmonary Histoplasmosis is one of the common manifestation in patients with Acquired Immune Deficiency Syndrome (AIDS)[1]. Isolated Histoplasma Lymphadenitis in the absence of pulmonary involvement is not very common even in People living with HIV[2]. Here we report a case of Histoplasmosis presenting as multiple lymphadenopathy and detected by simple and minimally invasive Fine Needle Aspiration Cytology (FNAC) procedure.

CASE REPORT

A 44 years Male presented to General Medicine OPD with pain abdomen for one and half months. He had mild fever and loss of appetite. He was a known HIV Positive patient for the past 14 years and was under Anti-Retroviral Therapy as per the government protocol but had been non-compliant to the therapy. On examination, pallor was present, generalized abdominal tenderness with hepatosplenomegaly was seen. Palpable and tender nodes were present in bilateral inguinal region. A CECT abdomen was ordered which showed gross hepato-spleenomegaly, and bilateral inguinal lymphadenopathy. Chest radiograph did not show any lung lesions.

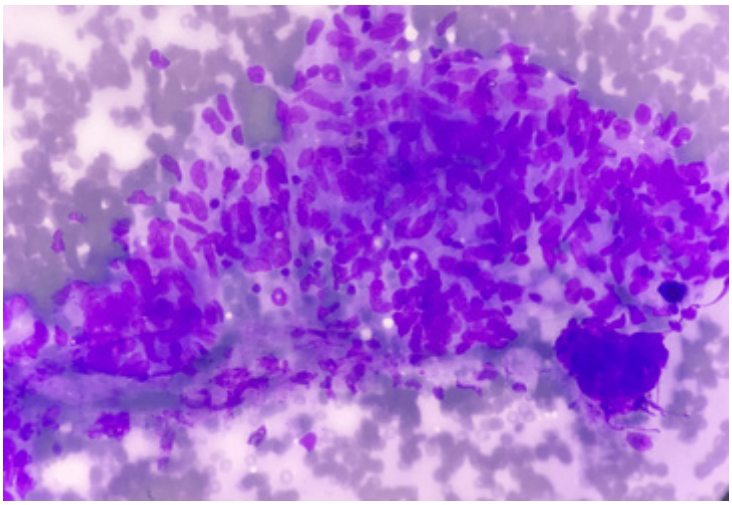
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A working diagnosis of Tubercular lymphadenitis was made and an USG Guided FNA was ordered from swollen inguinal node. FNA yielded Pus like aspirate. Slides were stained for PAP, Giemsa and AFB (TB) stain.

Pathological examination

Microscopy showed multiple discrete epithelioid cell granulomas (**Figure 1**) along with scattered macrophages and mixed acute and chronic inflammatory cell infiltrates.

Figure 1. Epithelioid cell granuloma in Giemsa Stain (100x).

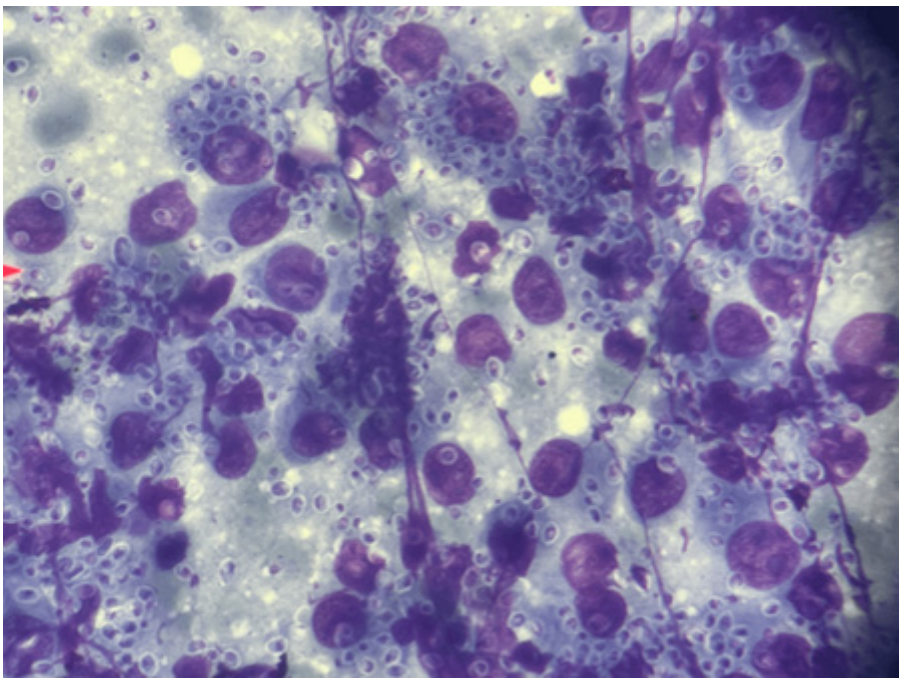


There were fair number of macrophages which were packed with organisms having well defined outer capsule, with a small dark hyperchromatic nuclei having morphological resemblance to Histoplasma capsulatum. These organism are seen extracellularly as well after rupturing the cytoplasmic membrane of the macrophages containing them. (**Figure 2**)

ZN Stain for AFB(TB) was negative.

Thus a diagnosis of Histoplasma Lymphadenitis was made.

Figure 2. Intra and Extracellular Histoplasma in Papanicolaou Stain (400x).



DISCUSSION

H.capsulatum is a dimorphic saprophytic fungus which exists in its mycelial form in soil at moderate temperature, ideally in a moist environment. After inhalation, it remains as blastospore state and is usually intracellular. The name is derived from the fact that it appears as an incapsulated organism inside a macrophage (Histocyte).[3] Morphologically H. capsulatum is a small spherical to ovoid yeast. It is a well-adapted organism to be pathogenic to humans, as it does not need interaction with a mammalian host as a part of its life cycle.[1]

Infection by Histoplasma can be both clinically asymptomatic or can lead life threatening disseminated disease, both in immunocompetent and immunocompromised individuals, though severe disease is more common in the setting of compromised immunity.[3] Cellular immunity is essential in clearing initial pulmonary involvement after inhalation of the infective droplets. Progressive disseminated histoplasmosis (PDH) is characteristically seen in immunocompromised individuals, accounting for 70% of cases.[4]

Clinical manifestation of Histopalsmosis varies and may affect all the organs and tissues in the body. Immunodeficient patients and patients infected by large inoculums of fungal organisms may develop more severe or disseminated infections.[4] However, Histoplasmosis presenting as isolated lymphadenopathy is not very common and a few case reports have been published regarding the same.[2,5] Most important differential diagnosis in HIV patients presenting with multiple peripheral lymphadenopathy is Tuberuclous Lymphadenitis. In our case, ZN stain for AFB (TB) showed negative results in addition to a large number of macrophages packed with histoplasma organisms.

FNAC is a simple, cost effective, minimally invasive diagnostic procedure done on Outpatient basis with high diagnostic yields in peripheral body swellings. In our case, a definite diagnosis of histoplasma could be accurately made based on FNAC findings alone.

CONCLUSION

Lymph node involvement though in Dessiminated Histopalsmosis is common, isolated lymph node involvement is rare even in immunocompromised patients. If timely detected and instituted to early treatment, the longevity of patient can be increased. Clinicians and pathologists should also have a high index of suspicion for detecting such rare entities.

Disclosure

This case study was done as part of routine reporting during author's daily activity.

Dr. Dinesh Khadka (the corresponding author) had received the case during his practice at Kankai Hospital Pvt. Ltd, Birtamode, Nepal.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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