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# INCIDENTAL DETECTION OF MICROFILARIA IN LYMPH NODE ASPIRATE- A CASE REPORT

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## ABSTRACT

*Filarial worms are nematodes that dwell in the subcutaneous tissues and the lymphatics. Filarial parasites are transmitted by specific species of mosquitoes or other arthropods which carry the infective larval stages. Usually, the infection is established with repeated, prolonged exposure to infective larvae. Since the clinical manifestations of filarial diseases develop relatively slowly, these infections should be considered to induce chronic diseases with possible long term debilitating effects. In the absence of clinical features of filariasis, Fine Needle Aspiration Cytology, a low cost outpatient procedure, may help in the diagnosis of lymphatic filariasis. We present this case because of unusual occurrence of isolated lymph node filariasis (occult filariasis) without microfilaraemia.*

## INTRODUCTION

Lymphatic filariasis is a major public health problem in tropical countries. It is unusual to find microfilaria in fine needle aspiration cytology (FNAC) smears of lymph nodes in spite of very high incidence in India. Filariasis is endemic in 17 States and six Union Territories, with about 553 million people at risk of infection. (1). Lympahtic Filariasis has been identified by the World Health Organization as a leading cause of permanent and long term disability in the world. (6).

FNA of the enlarged lymph nodes is a useful diagnostic tool to reveal the parasite without microfilaraemia.

## Case Report

A 26 years old male referred from the surgery department came with painless enlargement of left supratrochlear lymph node for ten days. There was no other significant history. On examination, the lymph node was firm, non tender measuring 2 by 2 centimeters with no overlying skin changes.

Fine needle aspirate of the lymph node performed with 24G needle with negative pressure yielded serous aspirate. The aspirate obtained was spread on three slides. On May-Grünwald Giemsa (MGG) stain the smears showed mixed lymphoid population in various phases of transformation. An isolated coiled microfilaria was seen in one of the smears with lymphocytes adhered to it (Fig 1). Background showed few red blood cells. No epithelioid cell granuloma or atypical cells were seen. Peripheral blood smear of the patient showed no evidence of microfilaraemia, but eosinophilia was noted.

Patient on careful clinical examination had no other evidence of lymphadenopathy, hydrocoele, swelling or history of fever.

Based on the above cytological findings, a diagnosis of lymph node filariasis in the absence of microfilaraemia was made.

Figure 1 about here



## Discussion

Lymphatic filariasis is caused by an infection with the nematodes. The adult worm resides in lymphatic vessels, while the larval forms, microfilariae circulate in the peripheral blood. The four most common presentations are asymptomatic microfilaraemia, lymphoedema, hydrocoele formation and acute attacks. Filariasis is seen apart from lymph nodes in breast, thyroid, epididymis/spermatic cord. The most common species found in India is Wuchereria bancrofti. It is sheathed microfilaria with tail tip free from nuclei.

The diagnosis of filariasis depends on clinical features, history of exposure in endemic areas and on laboratory findings. (7). The common laboratory tests include

a. Demonstration of microfilariae in peripheral blood, chylous urine or hydrocoele fluid
b. Detection of filarial in FNA smears
c. Skin tests with filarial antigens
d. Serological detection of filarial antigen and antibody
e. 'provocation' test with Diethylcarbamazine drug

Microfilaria may not be seen in peripheral blood due to elephantiasis, lymphangitis, in early stages of allergic manifestations and in occult filariasis.

Even though case reports of microfilariae found in FNAC smears of axillary and cervical lymph nodes are available in the literature, filariasis in supratrochlear lymph node is a rare finding.

In conclusion, absence of microfilaria in peripheral blood does not rule out filariasis. Filariasis can exist without microfilaraemia (3), i.e., the patient has occult filariasis. In occult filariasis, microfilariae are found in affected tissues but not in peripheral blood (4). Moreover, microfilaraemia can be extremely transient and therefore overlooked. (5). FNAC is recommended as an invaluable tool in the diagnosis of lymphatic filariasis, even in the absence of clinical features of filariasis. Presence of microfilaria in our case was an incidental finding and illustrates the importance of careful screening of all cytologic smears even when filariasis is not expected, especially in those with absence of microfilariae in blood.

Since there has been no chemoprophylaxis, or any radical cure for chronic cases, early diagnosis and treatment is the best option for filariasis. (2) And Fine Needle Aspiration Cytology has emerged as a low cost out- patient procedure which many a times helps in prompt recognition of the disease especially in unsuspected cases of filariasis. As filariasis is one of the important causes of disability and exerts a major impact on health care costs, careful screening of all smears and high index of suspicion, especially in endemic areas are the keys to correct diagnosis. (8)

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