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Case Report

An uncommon presentation of filariasis: A case report

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ABSTRACT

Filariasis continues to be a very important public health problem plaguing India. This is a tropical disease, caused primarily by Wuchereria bancrofti and few caused by Brugia malayi. Even though the prevalence of filariasis is high, it is rarely reported from the lymph nodes. We would like to report the case of a 2-year-old boy who presented with a right sided post-auricular swelling of size 2 x 2 cm since past 1 year. Routine blood investigations including peripheral smear was reported as normal. FNAC from the lymph node revealed microfilaria. This case report is to highlight the chances of finding microfilaria from an unsual site.

1. Introduction

Filariasis is seen in the tropics and subtropics of sub-Saharan Africa, South-East Asia, India and the Pacific islands. Lymphatic filariasis is a public health problem in India with Uttar Pradesh, Bihar, Jharkhand, Andhra Pradesh, Odisha, Tamil Nadu, Kerala and Gujarat being the heavily infected endemic areas.[1]

WHO established the Global Programme to Eliminate Lymphatic Filariasis (GPELF) to stop transmission of infection by mass drug administration (MDA) of anthelminthics and to alleviate the suffering of people affected by the disease through morbidity management and disability prevention The latest estimate is that 51.4 million people are infected globally.[2]

Diagnosis of filariasis is often made clinically or from microfilaria in peripheral blood smears. Only a few case reports with microfilaria from lymph nodes has been described.[3–6]

2. Case Report

A 2-year-old boy, immunized presented with complaints of swelling behind the right ear since 1 year which later increased in size over the past six months. He had no other associated complaints. No history of fever, cough or weight loss. No history of previous hospital admission.

Examination showed a 2 x 2 cm post-auricular lymph node on the right side. The lymph node was non tender, easily movable and the surrounding skin was normal. Other aspects of general and systemic examination were normal.

His investigations showed Hb – 10.6, Total count – 11400cells/mm3 (P31, L63, Eos- 3%), Platelet-2.1 lakhs/mm3, ESR – 12mm/hr. Peripheral smear initially showed microcytic hypochromic anaemia. USG neck showed multiple small lymph nodes (lesser than 5mm) in the cervical region. Fine Needle Aspiration Cytology (FNAC) of the lymph node was done which showed microfilaria (Fig1). A repeat peripheral blood smear was done which also showed microfilaria (fig2). Peripheral smears of the parents were done which was normal.

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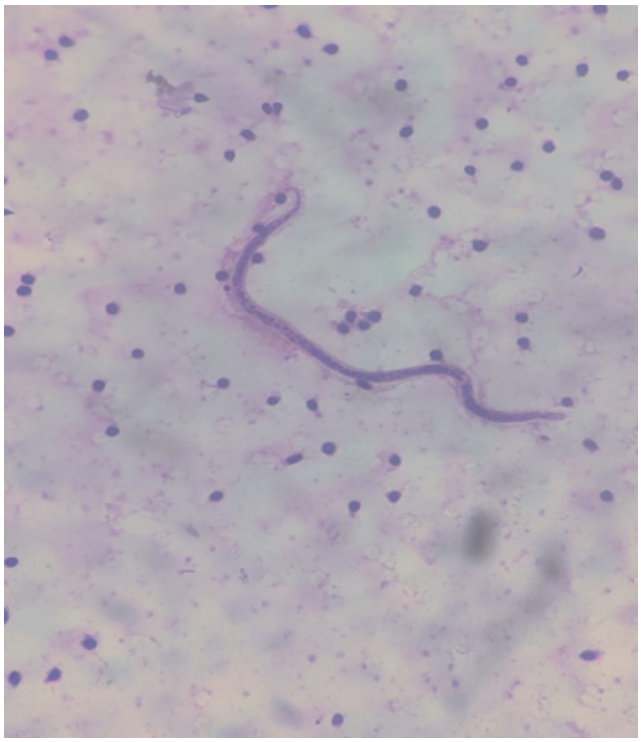

Fig. 1: FNAC of postauricular lymph node showing microfilaria

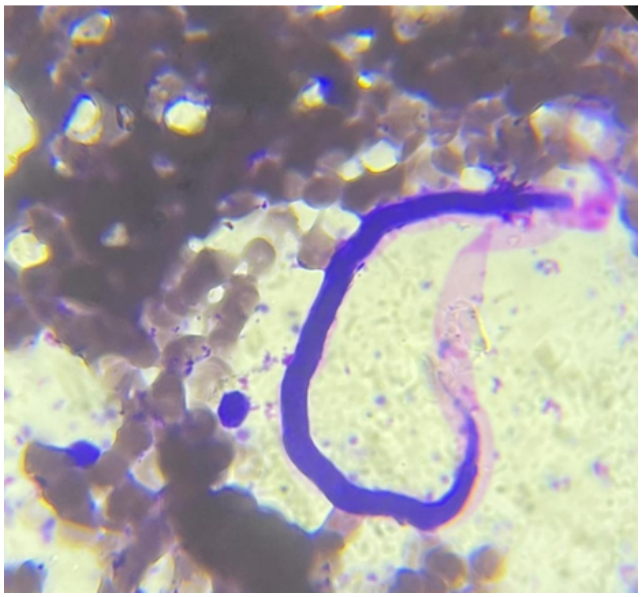

Fig. 2: Microfilaria seen in peripheral blood smear

The child was treated with diethylcarbamazine (DEC) at 6 mg/kg/day for 12 days and the lymph node decreased in size. Later, the health workers in the same area were able to find a few cases of adults diagnosed with filariasis.

3. Discussion

Lymphatic filariasis is still a common problem in many developing countries like India. In India 31 million people are carriers of microfilaria and over 23 million suffer from filarial disease. Bihar state (17%) is with maximum endemcity followed by Kerala (15.7%) and Utter Pradesh (14.6%).[1]

The adult worms are found in the lymphatic system of man – who is the definitive host. The female worms produce microfilaria which is ingested by the mosquito during a blood meal. The microfilaria then develops into the infective larval form in the mosquito -the intermediate host -which gets deposited on the skin of man when the mosquito bites. The larval form migrates to the lymphatics and settles down in the lymph node and develops into the adult worm.[7]

W. bancrofti is transmitted by the night biting Culex mosquito in most cases. The worms live for many years with the microfilaria surviving for up to 2-3 years and adult filarial worms surviving for 10 -15 years.[8] The microfilaria show nocturnal periodicity and are best detected in smears collected at night. The spectrum of filariasis can vary from asymptomatic microfilaremia to chronic obstructive lesions and lymphedema.[1] The acute phase consists of fever, lymphadenitis, lymphangitis. Eosinophilia and microfilaremia are common in this phase. The chronic phase manifests as lymphadenopathy, lymphoedema, hydrocoele and elephantiasis.

Asymptomatic presentation with only lymph node enlargement has been described in only a few cases (3-6). In such cases, fine needle aspiration cytology can be used for diagnosis as it is a cheap and accurate method especially in resource limited settings where expensive serological tests are not practical.

Another interesting aspect was the absence of eosinophilia in the blood picture. One of the most common findings in the peripheral blood examination in filariasis is eosinophilia.[9] Although the absence of eosinophilia is a rare presentation, there have been cases where microfilaria has been obtained from the peripheral smear but without any blood eosinophila.[10]

The most accepted regimen of treatment of bancroftian filariasis includes administration of diethycarbamazine (DEC) 6 mg/kg body weight per day orally for 12 days, given preferably in divided doses after meals. For Brugian filariasis, recommended doses range from 3 to 6 mg of DEC/kg body weight per day.[1] There were some studies which showed that a single dose administration of DEC at 6mg/kg was equally effective.[11] The adverse effects produced by the drug are seen mostly in patients who

have microfilaria in their blood and are due to their rapid destruction which is characterized by fever, headache, myalgia, sore throat or cough lasting for 24 to 48 hours. Mass drug administration with DEC, albendazole and Ivermectin was was more effective than the two-drug regimen (DEC and albendazole) in reducing microfilariae prevalence in communities to accelerate elimination of lymphatic filariasis.[12]

4. Conclusion

Although filariasis is not a common differential for an isolated lymph node enlargement, it should be considered in endemic areas even if the other investigations are not suggestive of the same. Fine needle aspiration cytology may be an effective tool for the same.

5. Source of Funding

None.

6. Conflicts of Interest

There are no conflicts of interest.

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