International Journal of Science and Research (IJSR)
ISSN: 2319-7064
ResearchGate Impact Factor (2018): 0.28 | SJIF (2018): 7.426

Isolated Trochlear Lymphadenopathy: A Rare Presentation of Filarial Worm Infestation

Soudamini Mahapatra[1], Dilleswari Pradhan[2], Subhashree Subhasmita Dash[3]

[1, 2, 3]SCB Medical College Cuttack, India

Abstract: ***Introduction: Isolated epitrochlear lymphadenopathy is a rare presentation of filariasis. Filariasis is endemic in tropical and sub-tropical countries. It usually affects the lower limb presenting as elephantiasis, epididymitis , orchitis. Case Report: A 9yr old mle child presented with an isolated epitrochlear lymphadenopathy, with no other specific signs and symptoms. We report a case with fine needle aspiration cytology findings of filarial worm infestation at an unusual site in clinically unsuspected case. Conclusion: A high degree of suspicion is recommended for such infections at uncommon sites in endemic countries, like India, for early detection and prompt treatment.***

Keywords: Isolated epitrochlear lymphadenopathy, Cytology, Filariasis

1. Introduction

Filariasis is a major problem of tropical countries like India and endemic in tropical countries like India, China, Indonesia, parts of Asia and Africa.[1] It is caused by a two nematode worms, Wuchereria brancofti and Brugia malayi transmitted by the Culex mosquito.[2] Filarial worms are present in the subcutaneous tissue and lymphatics, most commonly affecting epididymis, thyroid, breast, lungs, bronchial aspirates, cervicovaginal smears, pleural and pericardial fluids. Wuchereria brancofti, Brugia malayi, Onchocerca volvulus and Loa-loa are responsible for the most serious filarial infections. It is rare to find unfertilized egg and coiled form of microfilaria in Fine needle aspirations(FNA) and at an unusual site- epitrochlear node. Microfilaria of Wuchereia brancofti are identified morphologically by the presence of hyaline sheath, length of cephalic space and presence of nuclei from head to tail with tip free from nuclei. Isolated epitrochlear lymphadenopathy is a rare presentation of filarial worm infestation and incidental fine needle aspiration diagnosis is a rare, with different stages of filarial worm like egg, coiled larva and adult worm. So we are reporting the case.

2. Case Report

A 9year old boy presented to cytology section of pathology department, with a chief complaint of single swelling measuring 2X2cm on medial aspect of right arm, 1cm above the elbow, for 2months. On examination, the swelling was soft, non-tender, and mobile. The swelling was not associated with fever, weight loss, night sweats or any other lymphadenopathy was found. The Ultrasonograpghy of the swelling showed features suggestive of neurofibroma. The routine investigations like complete blood count showed slight increase in total leucocytes count with absolute eosinophil count 760/cmm. Then swelling was aspirated with a 10CC dispovan with 22G needle with 2-4 passage. The aspirates were smeared onto two clean glass slides, one was air-dired and other was alcohol fixed. The alcohol fixed slide was stain with H&E and air- dried smear with diff-quik. The smear showed presence of inflammatory cells, mostly eosinophils. There were presence of many unfertilized eggs, various stages of microfilaria worm (mostly coiled with few uncoiled form). The microfilaria seen was sheathed with no nuclei at the tip. So a diagnosis of Filarial worm infestation at trochlear lymph node was made.

3. Discussion

Filariasis is endemic in tropical and sub tropical countries like India, China. In India it is endemic in states like, Assam, West Bengal, Odisha, Uttar Pradesh, Madhya Pradesh, Tamil Nadu and Jharkhand.[1,2] Filariasis is caused by nematode Wuchereria brancrofti and Brugia malayi,accounting for 90% and 10% respectively, transmitted by mosquitoes.[3] Human are the definitive host for filarial worm. Lymphatic filariasis is about 25-30% of all cases of filariasis, most commonly caused by Wuchereria bancrofti. Most commonly affecting the lower limbs and male genitalia, causing elephantiasis, epididymitis and orchitis. Filariasis accounts for 0.0047% of all cases of lymphadnopathy, mainly affecting the inguinal node and axillary lymph node. Isolated epitrochlear lymph node enlargement can be due to non-malignant and malignant causes. Non-malignant causes are tuberculosis, leprosy, cat-scratch disease and leishmaniasis. Malignant causes include lymphoma and malignant melanoma [4]. Isolated epitrochlear lymphadenopathy is a rare presentation of filarial worm infestation. [5]

Our case includes an unusual site presentation of filarial worm, with all larval forms, demonstrated on FNAC. We reiterate that the demonstration and identification of different parasite in FNAC smears play a significant role in early detection. With prompt and specific treatment patient can be cured. A high degree of suspicious for filariasis at unusual site in endemic country should be considered.

References

[1] Tandon N, Bansal C, Sharma R, Irfan S, Role of fine needle aspiration cytology in diagnosing filarial arm cysts.BMJ Case Rep. 2013;2013.pii:bcr2013009677
[2] Park JE, Park K, Textbook of Preventive and Social Medicine.8th ed. Jabalpur,India : M/S Banarasidas Bhanot Publishers; 2005.
[3] McDam AJ, Sharpe AH. Infectious disease. In:Kumar V,Abbas Ak, Fausto N, Aster JC, editors. Robbin's and

Cotran Pathologic Basis of Disease. 8th ed. Philadelphia: Saunders jsevier;2010p.395.
[4] Dhawan AK, Bisherwal K, Grover C, Sharma S. An asymptomatic inguinal swelling :Lymphatic filariasis. Indian J Dermatol Venereol Leprol.2016;82:446-8.
[5] Garg PK, Jain BK, Rathi V, Singh N, Mohanty D. Mid-arm and epitrochlear lymphadenopathy: A clinic-radiological surprise. J Infect Dev Ctries.2011;5:820-4.

Figure 1: A 9yr old child presented with isolated epitrochlear lympadenopathy.

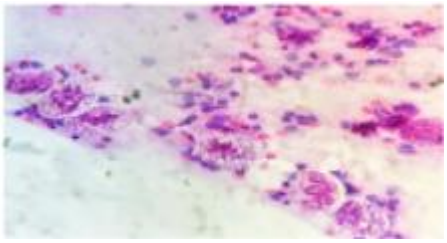

Figure 2: 400X H&E Stain – Unfertizied Eggs of Wuchereria Brancrofti Worm in the Background of Inflammatory Cells

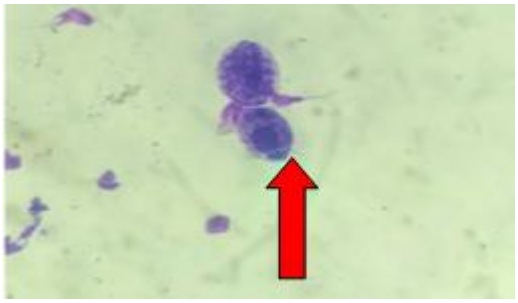

Figure 3: 400X DIFF Quik Stain – Unfertilised Eggs of Wuchereria Brancrofti

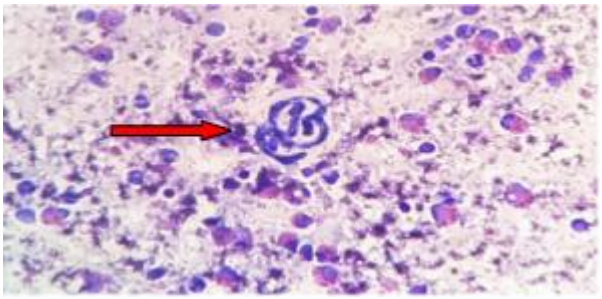

Figure 4: 100X DIFF Quik Stain – Coiled Form of Microfilaria over A Background Of Eosinophils.