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ATYPICAL PRESENTATIONS OF A COMMON ENDEMIC DISEASE: A SERIES OF 3 CASES OF FILARIASIS

General Surgery

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ABSTRACT

Filariasis is major health condition which affects more than 90 million people worldwide. It is caused by Wucheria bancrofti in 90% cases . The lymphatic filariasis commonly involves the lower extremities or scrotum and presents as lymphedema, elephantiasis, and hydrocele.

Summary: We present three atypical cases of lymphatic filariasis without lower extremity or genital involvement with varied presentation from single epitrochlear lymph node to recurrent lymphangitis with matted axillary nodes and recurrent breast abscess. Therefore in an endemic country like India, Filariasis should be a differential diagnosis in work up of any lymph nodal swelling, recurrent abscess or breast lump .

KEYWORDS

Filariasis, Wucheria Bancrofti, Breast abscess

Introduction

Filariasis is major health condition which affects more than 90 million people worldwide out of which two third live in India and China(1). Filariasis is a major health problem in parts of India especially Southern and Eastern India. It is caused by Wucheria bancrofti in 90% cases and in 10% cases it is caused by Brugia malai and Brugia timori. These parasites are carried by mosquito which has bitten a previously infected host. According to WHO, after leprosy, filariasis is second most common cause of long term morbidity.

The lymphatic filariasis commonly involves the lower extremities, scrotum, and retroperitoneal tissue and presents as lymphedema, elephantiasis, and hydrocele. A less common manifestation of the infection is tropical pulmonary eosinophilia(1). We present three atypical cases of lymphatic filariasis without lower extremity or genital involvement who presented to OPD of Department of General Surgery, Lok Nayak Hospital..

Case report 1

A 30 year old lady presented with complains of lump in the Right Arm since 1 year. The lump was non progressive, not painful and not associated with swelling of the right upper limb. There was no history of episodic cough, fever or any other associated swelling elsewhere in the body. The lady is home maker from New Delhi. Clinical examination revealed a firm and non tender epitrochlear lymph node of size 2x2cm. No edema of arm could be noticed at time of examination. Haemogram and chest x ray were normal. Peripheral blood smear was unremarkable. Ultrasound scan of the arm was carried out by an experienced sonologist in the presence of one of the authors. The scan revealed a homogeneous soft tissue mass of size 2.1 cm × 2.1 cm likely a lymph node. FNAC was done with a 23 G needle. It was reported as multiple microfilariae of Wuchereria bancrofti in a background of reactive lymphoid cells suggestive of lymphatic Filariasis. A nocturnal venous sample was then taken which was normal.

Case Report 2

A 35 year old smoker male, labourer by occupation and resident of Bihar presented to OPD with complaint of swelling left forearm(fig 1) and arm with pain and fever for 1 year. It was episodic and used to resolve with some medication from local practitioner. On examination there was visible erythema of left forearm with no difference in limb girth. Firm, non tender and matted left axillary lymph nodes of size 3x2cm to 2x1 cm were palpable. Routine blood investigations and chest x ray were normal. A Peripheral blood smear of nocturnal venous sample was normal. FNAC of lymph node shows multiple microfilariae of Wuchereria bancrofti.

Fig 1

Fig 2

Case report 3

A 50 year old female, resident of Eastern UP, presented to OPD with complaint of recurrent abscess right breast for which Incision and drainage done twice over 6 months. There was no history of residual lump/nipple changes and incision site healed well. There was no previous history of Koch's, fever or weight loss. On examination, 2 healed scar with bluish hue seen(fig 2). No well defined lump was palpable. Mammography with USG done was suggestive of tortous tubular structure with multiple linear rapidly moving internal hyperechoic structures likely microfilariae (filarial dance). Haemogram was normal with no eosinophilia or microfilariae on peripheral smear in nocturnal sample. USG guided FNAC was done which shows abundant microfilariae with abundant degenerated inflammatory cells predominantly lymphocytes(fig3).

In all 3 cases, patients were treated with Diethylcarbamazine (DEC) course for 2 weeks. All patients have complete resolution of lumps over time, with no recurrence or new symptoms. All patients are in regular follow up.

Fig 3

Discussion

Lymphatic Filariasis is endemic in certain parts in India and is major health problem. Male are affected more than female as females keep greater parts of body covered as compared to males so less exposure to mosquito bites(1).

Men is definitive host for Adult worms which reside in lymphatic system and are attacked by immune system. Microfilariae are the form which enter in blood stream and rarely causes symptoms and can be detected on peripheral smear. The early stage of filarial infection is characterized by presence of live adult parasites in the lymphatic system and microfilariae in the blood, without any outward evidence of disease - the stage of asymptomatic microfilaremia. The most common acute clinical manifestation is recurrent attack of lymphadenitis and lymphangitis. They are usually associated with fever with chills, usually involves the extremities or sometimes in the scrotum, are extremely painful, warm, red and tender. Red streaks may be visible along the inflamed lymphatic vessels. The draining lymph nodes in the groin become swollen and tender. Such attacks can recur for long time. These recurrent attacks together with worm load leads to chronic lymphatic obstruction with chronic changes. This includes skin and subcutaneous edema, massive increase in limb girth(elephantiasis), hydrocele and other manifestations.

The diagnosis of Filariasis is made by detecting microfilariae or filarial antigens in the patient's blood(2). Various tests are available now with more than 95% sensitivity and specificity for detecting circulating filarial antigen(CFA) which are now regarded as gold standard. These tests can be used for diagnosis of filariasis patient irrespective of presence of microfilariae in blood and can be performed in field practice also(3). Ultrasound scans with or without colour Doppler or pulse wave Doppler have been used to detect living adult W. bancrofti (filarial dance sign) in hydrocele(4), breast lesion or other sites. Microscopic examination of fine needle aspirates from dilated lymphatics, breast mass, thyroid mass, hydrocoele fluid, pericardial fluid, pleural fluid, ascitic fluid and joint fluid aspirates in patients harboring adult worms has also revealed microfilariae [5]. However, there are no reports of fine needle aspirates from dilated lymphatics without detectable adult worms revealing microfilariae on microscopy [6]. Peripheral smear can also show microfilariae if sample taken at night or after DEC provocative test.

Our cases appears unique as none of patient had eosinophilia or microfilariae on peripheral smear examination and all 3 cases had no involvement of lower limb, perineal or inguinal region. Case 1 had an isolated epitrochlear lymphadenopathy without any limb edema or history of lymphangitis and did not belong to an endemic area which makes the diagnosis more challenging. Although there are few cases of epitrochlear lymphadenopathy with lymphangitis/ lymphedema/ axillary lymphadenopathy or subcutaneous nodules (7) reported in literature, We cannot find any case of isolated filarial epitrochlear lymphadenopathy reported before. Case 3 had a presentation of recurrent breast abscess and was initially worked up with provisional diagnosis of Koch's. Whatever cases of breast involvement we found in literature were limited to presentation as breast mass with only 1 case series reporting breast abscess as presentation(8).

Conclusion

In conclusion the common presentation of lymphatic Filariasis includes acute attacks of lymphangitis, elephantiasis, hydrocele/ perineal or inguinal involvement but it may have a very wide range of presentation from isolated single epitrochlear lymph node (as in our case) to matted axillary nodes(6) or recurrent breast abscess. The difference in presentation of lower limb involvement and upper limb involvement could be due to different immune reaction at these two sites. Therefore in an endemic country like India, Filariasis should be a differential diagnosis in work up of any lymph nodal swelling, recurrent abscess or breast lump .

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