International Surgery Journal
Kumar V et al. Int Surg J. 2018 Mar;5(3):1149-1150
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: http://dx.doi.org/10.18203/2349-2902.isj20180849

Case Report

Filarial breast lump: a rare entity

Vinod Kumar[1]*, Mushir Reyaz[2], Gyanendra Singh[3]

[1]Department of Renal Transplant, ILBS, New Delhi, India
[2]Department of General Surgery, AIIMS, Patna, Bihar, India
[3]Department of Pathology, SGPGI, Lucknow, Utter Pradesh, India

Received: 11 January 2018
Accepted: 02 February 2018

***Correspondence:**
Dr. Vinod Kumar,
E-mail: access_vinod@yahoo.com

ABSTRACT

Breast filariasis is a rare entity and filarial breast lump can also mimic malignancy. Authors present a case of breast lump from an endemic region which turned out to be a filarial lump on histopathology report. So, a remote diagnosis of filariasis should also be kept in management of patients with breast lump from areas endemic for filariasis to avoid mismanagement.

Keywords: Breast lump, Filariasis

INTRODUCTION

Lymphatic filariasis is a major health problem in tropical countries like India, South East Asia, Africa and South and Central America. India alone accounts for one third cases of lymphatic filariasis. The disease is commonly caused by the larvae of *Wuchereria bancrofti* and B*rugia malayi* when they are transmitted to humans during mosquito bites which serve as the intermediate vector for these nematodes.

It mainly affects lymph nodes and lymphatic channels of lower limbs, spermatic cords, epididymis and retroperitoneum and present as swelling of the involved region when the adult worm blocks the lymphatic channels. Extra-nodal sites like breast are rarely involved and only a few cases have been reported till date. In the breast they present as lump and can also mimic breast carcinoma. So, a remote diagnosis of filariasis should always be kept in differential diagnosis of breast lump in patients from endemic regions like India to avoid treatment delay and mismanagement.

CASE REPORT

A 32 years old female from Bihar presented with complaint of gradually progressive painless lump in her right breast for 3 months with no history of fever, nipple discharge, trauma or skin ulceration.

On local examination, there was a 3x2.5cm firm, non-tender, mobile lump in upper outer quadrant of her right breast. There was no fixity to skin or underlying structures. Nipple-areola complex and overlying skin was normal. There was no axillary lymphadenopathy. Opposite breast and axilla were normal.

Ultrasound of right breast showed a relatively well defined heterogenous lesion of size 3.2cm (Transverse) x 2.45cm (Antero-posterior) in upper outer quadrant of right breast.

Fine Needle Aspiration Cytology (FNAC) was inconclusive. So wide local excision of the lump was done which revealed microfilariae on histopathology (Figure 1).

A final diagnosis of filarial breast lump was made, and patient was advised diethyl carbamazine 100mg thrice daily for 21 days. Patient symptoms improved, and she was asymptomatic on follow up at 6 months without lump recurrence.

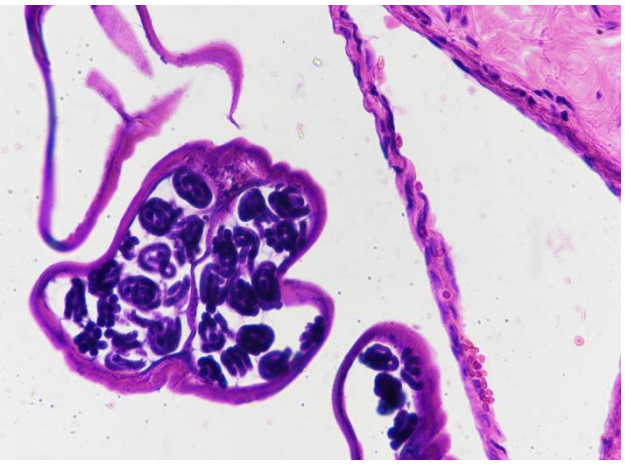

Figure 1: Hematoxylin and eosin stain at 40 X magnification showing fibro-collagenous tissue along with presence of many microfilariae which appear in groups. These microfilariae show presence of nuclei from the tip to the tail.

DISCUSSION

Filariasis is an endemic disease in India particularly Bihar. 90 percent of the cases of filariasis are caused by *Wuchereria bancrofti.* Other filariasis parasites include *Brugia timori, Onchocerca volvulus, Mansonella perstans, Mansonella streptocerca, Dirofilaria immitis* and *Loa loa*. Man is the definitive host of this parasite with a predilection for lymphatics. Varied species of mosquitoes depending upon regions serve as an intermediate vector. As the mosquito feed on an infected person they ingest the microfilaria where they develop into active form and are transmitted to new host as the mosquito bite them. In the lymphatic system the larvae mature into adult worm and block the lymphatic channels leading to symptomatic filariasis. Some of the unusual sites involved by filariasis are breast, thyroid, body fluids and skin.[1-4] Walter et al suggested that microfilaria appear in tissue fluids and exfoliated surface material due to lymphatic or vascular obstruction and subsequent extravasation.[5] This explains the possible mechanism of breast involvement in filariasis.

In the breast, microfilariae larvae cause lymphangitis, fibrosis and disruption of lymphatic drainage and usually presents as a solitary non-tender lump. The underlying inflammation can lead to hyperemia of the overlying skin, peau d' orange and palpable axillary lymphadenopathy, thus confusing it with inflammatory carcinoma breast. Many times, live wriggling adult worms can be demonstrated on ultrasound in a continuous, distinctive pattern of movement called the filarial dance suggestive of filarial breast lump.[6] FNAC aids in confirming the diagnosis with smears showing presence of microfilariae larvae.

The patient presented from an endemic area of Bihar with painless progressive lump in upper outer quadrant of right breast. Ultrasound showed presence of a heterogenous lump with FNAC being inconclusive. So wide local excision of the lump was done which on histopathology revealed microfilariae, confirming it to be a case of filarial breast lump.

CONCLUSION

Filarial breast lump is an uncommon condition. It can mimic carcinoma breast and may be a cause of concern. Therefore, in patients from areas endemic for filariasis presenting with complain of fever and breast lump a rare diagnosis of breast filariasis should always be kept in mind to help in prompt diagnosis and avoiding delay in treatment.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Sodhani P, Murty DA, Pant CS. Microfilaria in a fine needle aspirate from a breast lump. A case report. Cytopathol. 1993;4:59-62.
2. Chowdhary M, Langer S, Aggarwal M. Microfilariae in thyroid gland nodule. Indian J Pathol Microbiol. 2008;51:94-6.
3. Varghese TR, Raghuveer CV, Pai MR. Microfilariae in cytological smears. A report of six cases. Acta Cytol. 1996;40:299-301.
4. Valand AG, Pandya BS, Patil YV. Subcutaneous filariasis: an unusual case report. Indian J Dermatol. 2007;52:48-9.
5. Walter A, Krishnaswami H, Cariappa A. Microfilariae of *Wuchereria bancrofti* in cytologic smears. Acta Cytol. 1983;27:432-6.
6. Amaral F, Dreyer G, Figueredo-Silva J, Noroes J, Cavalcanti A. Adult worms detected by ultrasonography in human bancroftian filariasis. Am J Trop Med Hyg. 1994;50:753-7.

Cite this article as: Kumar V, Reyaz M, Singh G. Filarial breast lump: a rare entity. Int Surg J 2018;5:1149-50.