Filariasis Of The Breast

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Abstract

Filariasis is a major public health problem in tropical countries. The disease is endemic in large areas of India, Africa and parts of Asia. Lymphatic filariasis in humans is commonly caused by Wuchereria bancrofti and Brugia malayi. Extranodal filariasis is a rare entity, and the breast is an uncommon site for filariasis. Patients commonly present with an underlying lump and may occasionally mimic malignancy. Microfilariae (MF) and adult worms have been detected in tissue sections and needle aspirates from the breast, and aid in the diagnosis and treatment of the disease. We present an unusual case of Filariasis of the breast presenting as a breast lump with axillary lymphadenopathy and clinically simulating a breast cancer.

Introduction

Lymphatic filariasis or elephantiasias affects more than 90 million people worldwide and has been identified by WHO as the second leading cause of permanent and long term disability after leprosy. One third of the people infected with the disease live in India, one third are in Africa and most of the remainder in South Asia, the Pacific and the Americas [1]. The breast is an unusual site for the occurrence of filarial nodule and few such cases have been documented. [2] We present a young female who presented with skin induration over the right breast with associated right axillary lymphadenopathy, mimicking carcinoma of the breast.

Case report

This is a case of a 68 years old female who presented with a painless lump in the right breast of one month duration. It was of spontaneous onset and was gradually increasing in size. There were no other complaints like skin changes or nipple discharge. On examination, there was a single hard non-tender lump measuring about 2×2 cm² and was located in the upper inner quadrant of the breast almost on the right lateral border of the sternum with fixity to overlying skin with peau d’ orange. The lump moves with the breast tissue and was not fixed to the pectoralis major muscle. There were few anterior and central groups of axillary lymphnodes palpable which were discrete, firm and mobile. A clinical diagnosis of carcinoma breast was made and was evaluated further. Mammography of the breast showed BIRADS 3 lesion in the right breast. FNAC was done and showed inflammatory granuloma and no malignant cells. Hence the patient was subjected to excisional biopsy (i.e. lumpectomy). The biopsy specimen showed eosinophilic granuloma with microfilariae of Wuchereria Bancrofti [Figure –1,2]. Peripheral smear does not show microfilaria. A diagnosis of filariasis of the breast was made and patient was started on diethylcarbamazipine.

Discussion

Filariasis is a serious socioeconomic and public health problem of huge magnitude. It is endemic in large areas of India, Africa, and Far East. Wuchereria bancrofti (W. bancrofti ) accounts for approximately 90% of all filarias cases in the world followed by Brugia malayi (B. malayi ) and Brugia timori (B. timori ). Female breast is an unusual site for the occurrence of filarial nodule and few such cases have been documented in literature. [3] [4] [5] [6] It is frequently caused by W. bancrofti. Filarial granuloma in the breast though not a common occurrence in India is common in some endemic areas in Africa. [7] Filariasis of the breast is an extremely rare condition prevalent in endemic areas like India and sri lanka where W.bancrofti is predominant species. It has not been reported from areas endemic for B.malayi. The larvae enter the lymphatic vessels causing lymphangitis. When the female breast is involved, the larvae enter the lymphatic vessels causing lymphangitis, fibrosis and disruption of lymphatic drainage [8]. Hyperemia in the overlying skin with changes of peau d’ orange and enlargement of axillary lymph nodes has also been reported. [9] [10] Most common site is upper outer quadrant of breast. But central or periareolar nodules occur with notable frequency. [5] Most of the lesions involve subcutaneous tissue and present as a hard mass with cutaneous attachment. Sometimes accompanying inflammatory changes in overlying skin including
edema of the skin (peau d’ orange) and enlargement of axillary lymph nodes make it clinically indistinguishable from carcinoma. [6]

Ultrasound is a valuable tool in the diagnosing cases of lymphatic filariasis and can demonstrate the adult worms. A specific distinctive continuous pattern of movement called the filarial dance has been described by ultrasonologists [11]. These worms can later calcify and these calcifications are well visualized on breast mammograms. They appear elongated and serpiginous with no evidence of irregularity or pleomorphism and are not oriented or adjacent to the ducts. Due to their location in connective tissue unrelated to the ducts, these can be differentiated from calcifications of intraductal carcinoma. [12] In fine needle breast aspirates epithelioid cell granulomas are more commonly associated with filariasis in the breast [13] but the tissue immune response is variable, with intact worms provoking only minimal reaction. The degenerating parasite is associated with inflammatory cell infiltration particularly eosinophils. Therefore adult worms and microfilaria should be sought in all unexplained granulomas of the breast. Demonstration and identification of the parasite in the smear played a significant role in the prompt recognition of the disease and institution of specific therapy. [14] Filarial granulomas have been commonly described. [15]

Histopathology usually can confirm the diagnosis by finding of an eosinophilic granulomatous reaction around the filarial parasites which are in varying stages of degeneration. Filarial antibodies have been demonstrated in these patients and they usually respond to DEC therapy. This is an interesting case as clinically it was diagnosed to be carcinoma breast but the biopsy revealed filariasis of the breast.

References

5. Pant I, Singh PN, Singh SN. Filariasis of breast - a report of two cases, an unusual site to be involved, J Cytol 2003;20:206-7.
Illustrations

Illustration 1

Histopathology section from the breast lump showing microfilaria

Illustration 2

Histopathology section from the breast lump showing eosinophilic granuloma
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