



Case illustrated

Breast filariasis

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ABSTRACT

Filariasis is a global health problem and is a major social and economical burden in tropical countries in Asia, Africa and few of the South American countries [1,2]. In India, filariasis endemic in number of states including Bihar, Kerala, Uttar Pradesh, Andhra Pradesh and Tamil Nadu is found chiefly along the banks of rivers and sea coastal areas.

We present a case of 28 year female patient who presented with lump in her left breast for three months and was not associated with pain or discharge from nipple. Fine needle aspiration cytology (FNAC) showed live adult filarial worm along with various stages of filariasis such as microfilaria, adult filaria and embryonated eggs of adult gravid female worm.

In the world the largest number of filarial cases occur in India and about 600 million people live in endemic areas. Despite the huge number of people affected worldwide, it is quite rare to find microfilaria in routine cytological smears and body fluids. Filariasis of the breast is an uncommon condition and can cause a diagnostic dilemma. Hence, a high index of suspicion, particularly in patient from endemic areas, should be kept in mind so as to avoid surgical measures.

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Filariasis is a global health problem and is a major social and economical burden in tropical countries in Asia, Africa and few of the South American countries [1,2]. In India, filariasis endemic in number of states including Bihar, Kerala, Uttar Pradesh, Andhra Pradesh and Tamil Nadu is found chiefly along the banks of rivers and sea coastal areas. In India, filarial infection mainly caused by two similarly related nematodes *Wuchereria bancrofti* and *Brugia malayi* [3,4] and transmitted by female *Culex* mosquito. The disease mainly affects the lymphatic channels with the lymph nodes. Extranodal filariasis is rare and breast is an uncommon site for filariasis [1,5].

We present a case of 28 year female patient who presented with lump in her left breast for three months and was not associated with pain or discharge from nipple. On examination, the lump was soft to firm and free from the underlying structures. Fine needle aspiration cytology (FNAC) showed live adult filarial worm along with various stages of filariasis such as microfilaria, adult filaria and embryonated eggs of adult gravid female worm (Fig. 1) higher magnification revealed nuclei present until the tail tip consistent with *Wuchereria bancrofti*. The patient was then treated with oral Diethylcarbamazine (DEC) and her swelling disappeared. She was followed for 4 months and is doing well.

In the world the largest number of filarial cases occur in India and about 600 million people live in endemic areas. Despite the huge number of people affected worldwide, it is quite rare to find microfilaria in routine cytological smears and body fluids [6]. Among the 8 identified species of filarial parasite, only *W. bancrofti*, *Brugia malayi* and *Brugia timori* are known to cause lymphatic filariasis. The parasite commonly affects lymphatics and produce lesions in different sites like lower limbs, testes, epididymis, spermatic cord, retroperitoneum, bronchial, vaginal, pleural and pericardial fluids, joint spaces, thyroid and the female breast [2,4,5].

In the breast most common site is upper outer quadrant, but central or periareolar nodules are also occur commonly [7]. The lymphatic vessels of the breast which acquire larval contamination can cause lymphatic obstruction, lymphangitis and fibrosis. Most of the lesions affect the subcutaneous tissue and present as a hard mass with cutaneous attachment, presenting with a non-tender subcutaneous swelling. However inflammation and edema of skin (peau d'orange) and axillary lymphadenopathy have also been identified mimicking carcinoma [2,7]. In our case patient did not have the erythema of the breast skin or axillary lymph node enlargement.

Filarial breast nodules are rare, often mimics a neoplastic breast lesion. Diagnosis of filariasis of breast by FNAC in a young woman eliminated carcinoma in the differential diagnosis. Filariasis of the breast is an uncommon condition and can cause a diagnostic dilemma. Hence, a high index of suspicion, particularly in patient from endemic areas, should be kept in mind so as to avoid surgical measures.

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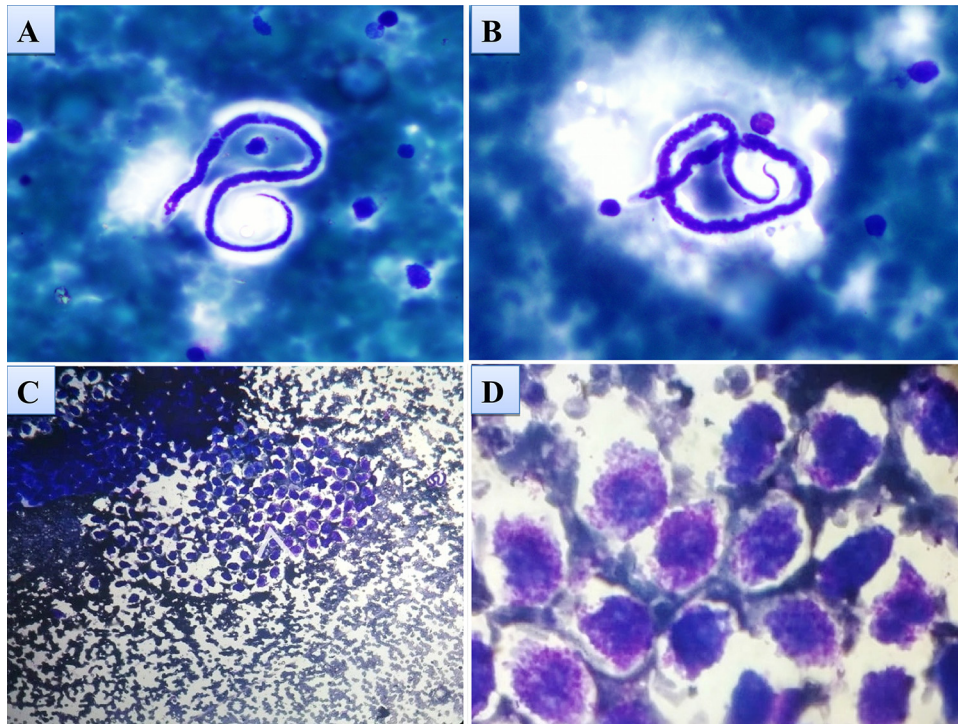


Fig. 1. A & B: Microfilaria with tail tip free of nuclei, suggestive of *Wuchereria Bancrofti*, in a hemorrhagic background. C & D: Embryonated eggs of adult gravid female filaria.

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All authors contributed equally.

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