

# SUBCUTANEOUS PRESENTATION OF *W.BANCROFTI*- A CASE REPORT

<sup>1</sup>Dr. Shweta Bijwe

<sup>1</sup>M.D.Patholgy

<sup>1</sup>Department of Pathology

<sup>1</sup>IGGMC, Nagpur, Maharashtra, India

**Abstract:** Filariasis , is a major public health problem in tropical countries like India, China , Indonesia, Africa & the far east. We are describing a case of *W. bancrofti* presenting as a subcutaneous swelling which is an unusual presentation. Aspiration cytology often helps in demonstration of filaria from uncommon diverse areas like breast, thyroid, effusion fluid, soft tissue swellings, etc. In endemic area diagnosis of filariasis should always kept in mind , even in asymptomatic cases, which can lead to correct diagnosis and prompt patient management.

**KEY WORDS** – *W. bancrofti*, subcutaneous nodule, unusual presentation

## I. INTRODUCTION

Filariasis , is a major public health problem in tropical countries like India, China , Indonesia, Africa & the far east.[1]

98% of the diagnosed cases of lymphatic filariasis in India is caused by *W. bancrofti*[2]. Lymphatic involvement is caused by *W.bancrofti* & *Brugia malayi*, while skin & subcutaneous tissue involvement is due to *Loa Loa* & *Oncocerca volvolus*. Aspiration cytology often helps in demonstration of filaria from uncommon diverse areas like breast, thyroid, effusion fluid, soft tissue swellings, etc.[3]. We are describing a case of bancroftian filariasis presenting as a subcutaneous swelling which is an unusual presentation.

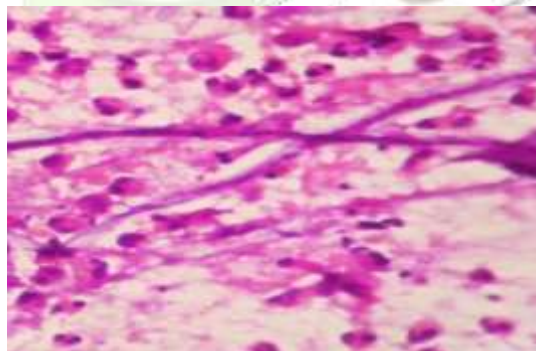
## II. CASE REPORT

### Clinical findings:-

A 23 year old girl presented with 3×2.5 cm, firm, mobile, non tender, gradually increasing subcutaneous nodule on left shoulder. There were no associated complaints like fever, pain or lymphadenopathy. Clinical diagnosis of benign soft tissue tumour was kept for the lesion. FNAC from nodule yielded necrotic material.

### Cytological findings:-

Cytological examination revealed necrotic & inflammatory background with acute & chronic inflammatory cells, many eosinophil , epitheloid cells and giant cells . Many microfilaria larvae and ova of *W.bancrofti* were seen.[ Figure 1]



**Figure 1-** Microphotograph showing microfilaria larvae of *W.bancrofti* and infiltrate of eosinophils on necrotic background [ H& E , 40x]

Nocturnal blood sample of patient failed to reveal any microfilaria . Eosinophil count was found to be normal. [5% ]

## III. DISCUSSION

Filariasis is endemic in tropical countries such as India, China, Indonesia, parts of Asia and Africa [1]. The adult gravid female worms residing in lymphatic system releases larger number of microfilaria which then pass through thoracic duct & pulmonary capillaries enter the blood stream. Microfilaria, can reach tissue spaces due to vascular or lymphatic obstruction, leading to extravasations of larva. Cytology can demonstrate these extravasated larva in tissue spaces or fluids.[4]

Diagnosis of lymphatic filariasis in typical symptomatic patients is often easy. However, a majority of the affected remain asymptomatic particularly in the endemic areas with continued disease transmission. Microfilaremia is often absent or transient, in endemic areas, which further leads to difficulty in diagnosis of disease.

Filarial organism can be detected in cytological smears from various sites of body in clinically unsuspected cases of filariasis. Such lesions may be primarily caused by the organism or it may be associated with other pathology such as malignancy. Incidental detection of filarial organism has been reported in cytological smears from almost any part of body.

Our case presented as a subcutaneous nodule which was clinically suspected as fibroma. Subcutaneous tissue is an uncommon site of presentation of *W. bancrofti* and is usually misdiagnosed clinically as benign soft tissue neoplasm like neurofibroma, lipoma, dermal adnexal tumour etc.

In our case, microfilaria & ova of *W. bancrofti* were seen on cytology smears. Microfilaria is the most common form of filarial organism detected in cytological smears. It seen as larva surrounded by thin hyaline sheath, which is considered as remnant of eggshell[5].

Occurance of ova with microfilaria of *W. bancrofti* is reported in FNAC from various sites such as lymph nodes[6] soft tissue swelling [7]& breast lump.[8][9]

In our case, the patient came from an endemic area which explains lack of clinical symptoms and amicrofilaremic state. FNAC is proved to be an effective measure in diagnosis of this type of asymptomatic cases where clinical diagnosis is not related to filaria.

#### IV. CONCLUSION

During cytological evaluation of tissue fluids and aspirate from lesions of any part of the body, possibility of filariasis must be kept in mind as a possible differential diagnosis, particularly in endemic areas, which can lead to correct diagnosis and management of patient.

#### REFERENCES

1. Park JE, Park K. Textbook of social and preventive medicine. 12<sup>th</sup> ed. Jabalpur, India: M/S Banarsidas Bhanot; 1989. p. 194.
2. Sabesan S, Palaniyandi M, Das PK, Michael E. Mapping of lymphatic filariasis in India. *Ann Trop Med Parasitol* 2000;94:591-606.
3. Mallick MG, Sengupta S, Bandyopadhyay A, Chakravorty J, Ray S, Guha D. Cytodiagnosis of filarial infections from an endemic area. *Acta Cytol* 2007;51:843-9.
4. Jyoti Prakash Phukan, Anurdha Sinha, Sanjay Sengupta, Kingshuk Bose. *Tropical Parasitology*, Year 2012, Volume 2, Issue 1 [p. 77-79]
5. Bimal K., Khare p., Gupta R., Bisht S.: Microfilaria of *Wuchereria bancrofti* in cytologic smears: A report of 5 cases with unusual presentations. *Acta Cytol* / 2008;52:710-12.
6. Sah SP, Rani S, Mahato R: Microfilaria in lymph node aspirate. *Acta Cytol* 2002; 46: 73-5.
7. Kapila K, Verma K: Gravid adult female worms of *Wuchereria bancrofti* in fine needle aspirates of soft tissue swellings: Report of three cases. *Acta Cytol* 1989; 33: 390-2.
8. Kapila K., Verma K. Diagnosis of parasites in fine needle breast aspirates. *Acta Cytol* 1996; 40: 653-6.
9. Jha A, Shrestha R, Aryal G, Pant AD, Adhikari RC, Sayami G: Cytological diagnosis of bancroftian filariasis in lesions clinically anticipated as neoplastic. *Nepal Med Coll J* 2008;10[2]: 108-114.