

Filarial Orchitis Mimicking As Scrotal Abscess –A Case Report**Dr. Ezhil Arasi. N¹, Dr. Neelima. G², Dr. Manimekhala. P³, Dr. Anunayi. J⁴, Dr. Akhila. P⁵, Dr. Nagesh⁶**¹Professor and HOD, ²Assistant Professor, ^{3,4}Associate Professor, ⁵Senior Resident, ⁶Post Graduate, Department of Pathology, Osmania Medical College, Hyderabad, India***Corresponding author**

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Abstract: Filariasis, a parasitic infection most commonly caused by *Wuchereria Bancrofti*, is a major global public health problem. It is currently endemic in 80 countries, in the tropics and sub-tropics. The clinical presentation of the disease depends on species type, host response, duration of the disease and worm load. We present a case with atypical presentation of urogenital filariasis as scrotal abscess leading to diagnostic dilemma and confirmed by histopathological examination. We aim to present this case of testicular filariasis masquerading as abscess.**Keywords:** Filariasis, testicular, abscess, *Wuchereria Bancrofti*, urogenital.

INTRODUCTION

Lymphatic filariasis (LF), also known as elephantiasis is a serious public health and socioeconomic problem in India. Of the three parasites causing lymphatic filariasis, *Wuchereria bancrofti* accounts for over 90% of the global burden. The disease has been targeted by World Health Organization (WHO) for global elimination by 2020. Elephantiasis has been described in the old Indian and Persian literatures which means an abnormal massive accumulation of lymphatic fluid in subcutaneous tissue leading to a gross enlargement of the affected body structure that looks elephantoid in size, texture, and colour. The earliest records of this disease in India dates back to 6th century BC by Indian physician Susruta in his book 'SusrutaSamhita' [1]. Genital filariasis in India more commonly presents as a secondary vaginal hydrocele with an associated epididymo-orchitis while isolated testicular involvement is rare.

CASE PRESENTATION

A 50 year old male was admitted to the department of Surgery with complaints of swelling in his left testis since 3 weeks which was gradually increasing in size and associated with pain since 10 days. He also complained of fever since 5 days. There was no history of trauma to the testis. External examination of the genitalia revealed ill-defined swelling of size 3 x 2 cm, tender and signs of inflammation noted. No abnormality was noted in right testis. Blood investigations revealed an elevated WBC count with no eosinophilia. Ultrasound findings of the swelling were suggestive of an abscess. With a provisional diagnosis of Scrotal abscess the patient consented for an orchiectomy. The patient underwent a left orchiectomy.

Grossly we received a testicular mass measuring 6 x 3 cm along with cord measuring 3 cm in length, cut section of the tests revealed grey white areas with central fibrino purulent material. String test was negative. Epididymis and cord were normal. Histopathological examination revealed hyalinized seminiferous tubules. Interstitium showed marked inflammation and dilated congested blood vessels, focal necrosis and cut section of filarial worm surrounded by dense collections of eosinophils, lymphocytes, histiocytes and giant cell reaction. (Figures- 1, 2).



Fig-1: 10X, H&E section shows microfilarial worm, surrounded by dense inflammatory cell infiltrate consisting of lymphocytes, eosinophils, histiocytes and plasma cells.



Fig-2: 40X, H&E section shows adult worm with tubular structures containing round bodies (uterus) and an empty tubular structure (intestine).

DISCUSSION

Despite many control measures and strategies directed against eliminating filariasis, the incidence is on rise during the last four decades globally [2]. Incidence of filariasis is high in Indian subcontinent. The endemic areas are mainly the sea coast and the banks of large rivers. Filariasis is transmitted by culex mosquito. There are eight filarial species causing infection in man. Infection with any of these filarial worms may be called Filariasis but traditionally the term filariasis refers to lymphatic filariasis caused by *Wuchereria* or *Brugia* species [3]. *Wuchereria bancrofti* has been the most predominant infection in India and is endemic in most parts of Southern Asia. Humans are the only known reservoirs with adult worms found in the lymphatic vessels. Review of literature revealed that *W. bancrofti* can produce a variety of lesions by involving the lymphatics in soft tissues, lung, breast, thyroid bronchoalveolar fluid, gastric brushing and testis (hydrocele fluid and epididymis).

Studies relevant to age and gender analyses have shown that in females, lymph edema is the major manifestation and hydrocele the major manifestation in males, particularly in endemic areas of *W. bancrofti*. The prevalence of hydrocele increases with an increase in age. In most Asian and African sites, the prevalence of hydrocele can be as high as 50% in the older age groups (above 45 years).

The urogenital manifestations of filariasis are of many types [4]. These varied clinical manifestations of genital filariasis depend upon the stage of the disease. Acute manifestations include epididymo-orchitis, funiculitis and the most common chronic manifestation being hydrocele, others include lymph scrotum, lymph varix, filarial penis and chiluria. In India genital filariasis more commonly presents as a secondary vaginal hydrocele with an associated epididymo-orchitis while isolated testicular involvement is rare [5]. Bacterial infection plays a key

role in causing acute attacks which can be prevented by simple hygiene practices.

Though the diagnosis of filarial infection depends on demonstration of microfilariae in blood, alternative commercially available methods that detect antibodies and antigens by immunological assays can also be used. The gold standard for detecting *Wuchereria bancrofti* is circulating filarial antigen test [6]. Cases have been reported to yield microfilariae in Fine needle aspirations from lymph nodes and various sites [7]. Imaging techniques like ultrasonography and nuclear magnetic resonance spectroscopy can also be used for detecting filarial worms.

The disease has been targeted by World Health Organization (WHO) for global elimination by 2020. Transmission control and disability alleviation are the two pillars of the elimination strategy under the Global Programme for Elimination of Lymphatic Filariasis (GPELF).

CONCLUSION

We conclude that when other diagnostic tests for filariasis are non-contributory HPE serves as a useful diagnostic modality as in our case, hence guiding towards the treatment.

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