Live adult filarial worm in a scrotal swelling—a case report

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A 30-year-old serving soldier from Karnataka presented in the service outpatient department (OPD) with swelling in right hemiscrotum separately felt from the testis. The swelling was of one month duration which was insidious in onset and gradually progressive. The swelling was associated with dull ache which was continuous and radiating to the right loin. He did not give any history of trauma, fever, weight loss or altered bladder habit. On examination, there was a 2 × 2 cm² firm solitary mildly tender and non-transilluminant swelling in the right spermatic cord. The testis was normal and cord was not thickened.

On evaluation, haemogram and urine exam were normal. There was no eosinophilia. There was no microfilaria seen in the peripheral blood smear taken at 8 pm. Ultrasound findings of the swelling were non-contributory and no filarial dance sign (FDS) could be demonstrated. Clinically, an epididymal mass was kept in mind and patient was subjected to excisional biopsy. Intra-operatively, a 10-cm long capsulated live worm was isolated from the epididymal mass which was motile in saline. Patient had an uneventful postoperative recovery. Gross examination and histopathology confirmed it to be an adult filarial worm *Wuchereria bancrofti* with minimal tissue reaction around the worm (Figure 1).

DISCUSSION

The adult *W. bancrofti* may produce lesions by involving the lymphatics of the lower limbs, spermatic cord, epididymis, testis, retroperitoneum, and female breast.¹ Its typical presentations are elephantiasis, funiculitis, and lymphadenitis.² Adult worms are found in the lymphatic vessels only in humans; there is no animal reservoir.³ In spite of a large number of such

lesions diagnosed on cytology, it is still quite unusual to find an adult filarial worm.¹ There is a report on three adult filarial worms in the surgical material received at Riyadh Armed Forces Hospital over a duration of 20 years.⁴ There is no such case recorded from Indian Armed Forces Hospital available in the literature. We are reporting possibly the first such case where the patient had a solitary scrotal swelling which was not diagnosed by ultrasound (absence of FDS). The swelling was excised and examined after half cut-section which revealed the adult worm moving actively. The worm survived for the next 24 hours in saline at room temperature. Cross-section of the worm and microscopic examination confirmed it to be *W. bancrofti*. The interesting negative finding of the absence of FDS prior to surgery by ultrasound is noteworthy. Thus, in a country like India, where lymphatic filariasis is endemic, clinical differential diagnosis of filariasis has to be kept in mind in the absence of FDS. There are a few reports of adult filarial worm in soft tissue swelling and epididymal nodule.^{1,2,5} Adult and alive filarial worm does not excite any tissue reaction. In our case there was no significant tissue reaction observed histopathologically. However, postoperatively the patient was treated by a course of diethyl carbamazepine.

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Figure 1 Adult filarial worm.

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