

**Case Report****An adult worm in the eye**Qazi MS<sup>1</sup>, Khetan SP<sup>2</sup>, Tankhiwale SS<sup>3</sup>

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**ABSTRACT**

We report a case of ocular loiasis in a 9 yrs old girl. Very few case reports of ocular loiasis have published from India to date. *Loa loa* is a subcutaneous filarial parasite of man and known to be transmitted to humans by *Chrysops* flies. Patient presented with visual disturbances due to worm in her eye. A live adult worm was extracted and identity was confirmed by gross and microscopic examination to be *Loa loa*. Patient was treated with albendazole, gentamicin and steroids.

**Key Words:** Ocular Loiasis, anterior chamber, *Loa Loa*, calabar, iridocyclitis

**Introduction**

Loa –Loa or eye worm produces Loiasis. The condition is characterized by transient subcutaneous swelling known as calabar swelling. Calabar swellings are areas of angiodema and are usually found at the extremities especially around the Joints. [1,2] The adult Worms are occasionally found to migrate through the subconjunctival tissues. Hence are referred to as eye worms. The microfilaria of *Loa –loa* may not be often demonstrated probably because the worms are not mature or only males are present in infection. [2]

**Case report**

A 9 yr old girl presented to the eye OPD with complaints of decrease vision & worm in the right eye. Patient was also having complains of redness, watering, pain & decrease vision of right eye since last 15 days. She also gave history of trauma to the

eye one month back for which she was hospitalized. Discharge report of previous hospitalization revealed traumatic iridocyclitis with hypopyon in right eye. She had been discharged after recovery for the same. On sixteenth day of the discharge from the hospital, she developed complaint of diminished vision. General examination did not reveal any significant finding. Examination of right eye showed conjunctival congestion & haziness of cornea. Anterior chamber showed hypopyon, severe iritis, exudates in pupillary area & presence of coiled up, sharp, thread like structure seen at 12 O'clock position (Fig. 1). Left eye was normal with pallor. Blood examination showed Hb-8.8 gm%, TLC-9000/mm<sup>3</sup> with eosinophil of 6%. No microfilaria / parasite were seen in peripheral smear. Aqueous fluid did not show any cellularity or microfilaria. Radiograph of chest and urine

examination were within normal limit. Her HIV status was detected negative. A live adult actively motile worm was extracted through superior temporal limbal stab incision & sent to microbiology department for identification.

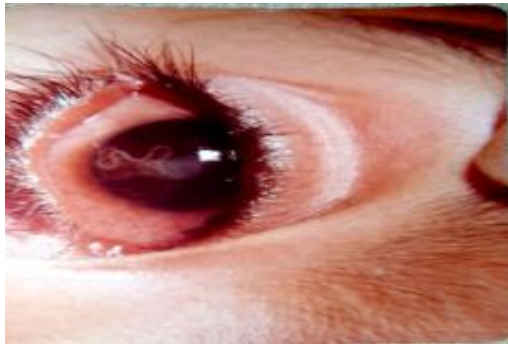


Fig. 1 Depicting worm in the eye



Fig. 2 Retrieved worm

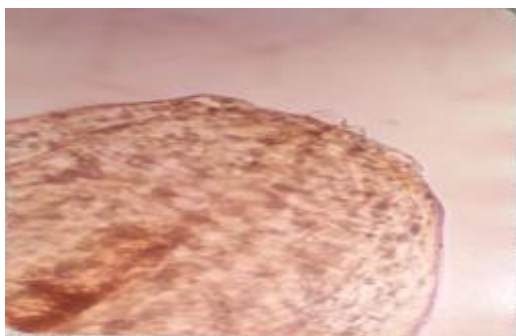


Fig. 3 Caudal end of worm showing sharp spicules

On gross examination the worm was thin, whitish rounded structure measuring to 1.3 cm x 0.1- 0.2 cm. (Fig. 2) Microscopic examination showed cuticle covering the body. A worm had rounded mouth & caudal

end was not curved but presence of sharp spicules was noted. (Fig. 3) Macroscopic characters suggested the identity of *Loa loa* adult male. Absence of microfilaria in the peripheral blood smears further strengthened the identity of worm to be a male. After removal of worm, patient was treated with Tab albendazole 400 mg for 5-7 days, Tab prednisolone 10 mg tid for a week, Tab Ibuprofen 200 mg tid & Inj. gentamicin 40 mg bid for 5 days.

### Discussion

Though endemic in the central & West Africa, sporadic cases have reported from other parts of the world including India. Most of these cases describe the presence of *Loa loa* in the subconjunctival tissue, though a few cases have been reported from India with worm in the anterior chamber of the eye. Adult worm isolation from anterior chamber of eye were reported by various author (Bhagwat<sup>[3]</sup> et al in 1953, Lakshmi<sup>[4]</sup> et al in 1988, Y Arora<sup>[5]</sup> et al in 1990, Satyavani<sup>[2]</sup> et al in 1993 & Barua<sup>[6]</sup> et al in 2005). Those were adult *Loa Loa* and from different parts of India. However there is no report of Loiasis from central India. Arora reported a case of *W. bancrofti* adult worm from anterior chamber. Sayali et al<sup>[7]</sup> in the year 2011 reported adult *Loa loa* from upper eyelid.

In this case, past history of trauma to eye is very important as it would have lead to penetration of worm into the eye. After trauma, patient had eye symptoms which were symptomatically treated. During a month period, worm crossed various soft tissues and appeared in the eye. The worm in this case, identified as adult male *Loa-loa* migrated to the anterior chamber in its larval stage either from the blood or through ciliary vessels & grew

there or may have burrowed through the coats of the eye ball. Absence of microfilaria in peripheral blood may be due to the presence of a lone male adult incapable of reproduction. Our patient mainly came for worm in anterior chamber of eye & decreased vision. But past history of only iridocyclitis and hypopyon can be correlated to worm which might have subcutaneous localization. Finally, due to appearance of worm in anterior chamber, patient was completely relived of her symptoms and cured. Although case report of ocular Loiasis are not frequently reported in literature but we need to consider the possibility of this rare condition as one of the cause of iridocyclitis for complete management of the patient.

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