

# Subconjunctival Loa Loa Worm: A Case Report

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*Pak J Ophthalmol 2014, Vol. 30 No. 4*

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A male patient 70 years old presented in outpatient department with a history of heaviness and irritation in his left eye for the last four months. He had been using different eye drops but there was no recovery. Slit lamp examination revealed a black subconjunctival mass 2-3 mm on surface. Removal under microscope revealed the mass was a worm about 3 cm and pathologist confirmed the worm was a dead Loa Loa. Laboratory report revealed eosinophilia of 8%. The patient also gave history of pruritis and swelling on medial side of thigh a year back. The patient showed marked improvement after 3 weeks.

**Key Words:** Subconjunctival, Loa Loa Worm.

**L**oa loa is a parasitic infection endemic in the tropical rain forests of Africa. It is unique among the human filarial Infestation and adult worms are occasionally visible during subconjunctival migration. This case report is the removal of a dead Loa Loa worm from subconjunctival space of a patient who came in the ophthalmology department of Al-Khidmat Teaching Hospital Mansoor. Medline search revealed this as the first case in Pakistan.

## CASE REPORT

We report a case of removal of sub conjunctival Loa Loa of a patient aged 70, who belongs to Phool Nagar (Bhai Pheru), about 40 Km from Lahore on Multan road (Fig. 1). He underwent cataract surgery in both eyes a year back. He came with the complaint of heaviness and some uneasiness in his left eye. Slit lamp examination revealed an indistinct sub conjunctival structure about 2-3 mm in size. We first tried to remove it on slit lamp but the mass slipped and seemed unusual in nature. So we decided to remove that under microscope in operation theatre. We found that the mass was a worm whose remaining part was deep and surrounded by fibrous tissue (Fig. 2). One end of the worm was curled up. It was dissected out and measured about 2.8 cm in length (Fig. 3). We suspected worm to be Loa Loa and sent it for parasitological examination. The patient did not

give any history of travel to Africa except a visit to Saudi Arabia for Hajj seven years back. The patient also gave history of swelling and pruritis on medial side of thigh a year back. Blood examination revealed eosinophilia. The pathological report confirmed the diagnosis.

## DISCUSSION

Loa loa belongs to super family Filarioidea. Adult worm is long thread like. They are parasites of subcutaneous tissues or serous cavities as sub conjunctival spaces. The worms are viviparous that they give birth to larvae and do not lay eggs. They commonly migrate rapidly in the body and may be seen in sub conjunctival space or thinned skin areas. Adult worm measures 3 cm in length and 350 micron meter in width. Female worm measures 6 cm in length and 450 micron meter in breadth. Its vector, in which the parasite undergoes larval stages, is a blood sucking fly of the genus chrysops.<sup>1</sup> There are some reports of worm located in the anterior chamber of the eye.<sup>2</sup>

The worm causes Loais is characterized by the occurrence of swelling in various parts of the body known as calabar swellings. The swellings are transient and may be painful if situated over joints. They are caused by maturing larvae migrating away from the site of inoculation by vector fly. Eosinophilia



**Fig. 1:** Patient of subconjunctival Loa Loa



**Fig. 2:** During Surgery



**Fig. 3:** Loa Loa Worm after Removal

is common. Most of the cases of sub conjunctival Loa Loa reported are live worms while one case report of dead worm recovered from eye in Brazil<sup>3-5</sup>. History of travel to Africa is usual in most of the case reports.<sup>6-8</sup> The disease was also found in some of the African students studying abroad<sup>9</sup>. The worm also recovered from periocular subcutaneous tissue in few reports.<sup>10,11</sup>

We report a case with subconjunctival Loiasis. In summary, this is a case of Loiasis encountered in non-endemic area. There is no history of travel to

Africa. The patient gave history of visit to Saudia Arabia to perform Hajj seven years back. Loa Loa although endemic in Africa, an increasing number of reports are coming from non-endemic areas. Therefore, any patient with an unclassifiable eye affection should also be investigated for rare pathogens as well. It must not be considered anymore as being limited to certain geographical areas and must be known by ophthalmologists.

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