

Eye worm (Loa Loa) in Indian context!!!- A clinical case study

A 68 years old hindu male presented to our OPD with complaint of severe irritation, burning and pain in right eye since last 7 days , complaints were not associated with diminution of vision. He had consulted many eye specialists in Surat city for the same but the diagnosis was missed. Right eye was operated for cataract 7 years back somewhere else. Patient had complaint of diminished vision in left eye since last 12 years. **Patient was known case of hypertension and some cardiovascular disorder for which he had undergone angiography before 12 years at Surat city.**



Figure 1 Loa Loa worm in eye sitting in the shape of "figure of eight" in sub-conjunctival space

Slit lamp examination showed severe conjunctival congestion in right eye.

Worm in inferonasal subconjunctival space resting like serpent, coiled up in *Figure of eight*. On tickling, it showed subconjunctival movement. Anterior segment of the left eye was normal. On fundus examination, Right eye retina was normal, checked thoroughly for possibility of presence of worms in other retinal or sub retinal areas. In left eye scarring over

macular area was involving mainly parafoveal part. Diagnosis of loiasis was reached on the basis of thorough clinical examination, eosinophilia in blood and microfilaraemia in the blood film.

After thorough eye examination, patient was taken in operation theatre. Under aseptic precaution and in topical anesthesia with proparacaine hydrochloride 0.5% , 2mm small conjunctival opening was made over most bulging part of worm. Then worm was pulled out by plain forceps. Thorough cleaning of subconjunctival space done by povidone iodine solution 5% .Conjunctiva closed with bi polar electric cautery. When measured length of worm surprised us. It was 14 cm long !!

Though parasitic involvement in the eye as such is a rare event, whenever found, it had been found in association with significant risk of vision threatening complications due to induced inflammatory destruction as the main aetiology.

The adult worms live and migrate in the subcutaneous and deep connective tissues and the microfilariae are found in the blood, where they can be ingested by mango flies or deerflies (*Chrysops* species). Once ingested by a fly, the microfilariae become infective in approximately 10 to 12 days. Humans are infected when the larvae enter the skin through bites by infected flies. Development into adult worms takes about 6 to 12 months and they can survive up to 17 yrs. The first clinical signs may occur as soon as 5 months post-infection but clinical may last up to 13 yrs. Adult *Loa Loa* migrate actively throughout the subcutaneous tissue of the body and derive their popular name (eye worm) from the fact that they are most conspicuous and irritating when crossing the conjunctiva. *Calabar* swellings on the skin, named after the coastal Nigerian town where they were first recorded, may be several inches in diameter and is a type of allergic reaction to the metabolic products of the worms or to dead worms. These swellings can occur anywhere, but are more frequently seen on the limbs, especially the forearms.

In summary, we described a case with subconjunctival loiasis treated with surgical in toto excision of the live worm. *Loa loa filariasis* worm is most common in African countries, but can rarely be found in non-African countries as well so ophthalmologists of non-African countries need to be vigilant while examining the patient.

Video of the Loa Loa worm in eye in Tejas Eye Hospital at Mandvi-Surat-Gujarat-India.



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