

A LIVE WORM IN THE SUBCONJUNCTIVAL SPACE

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ABSTRACT:

A LIVE WORM WAS REMOVED INTACT FROM THE SUBCONJUNCTIVAL SPACE OF THE LEFT EYE OF A 54 YEAR OLD MALE WITH NO SYSTEMIC ILLNESS. KEY WORDS: WORM, SUBCONJUNCTIVAL SPACE.

CASE REPORT:

A 54 year old male patient came to our OPD at Bhagwati Hospital with history of redness, pain, foreign body sensation and swelling in the left eye since three to four days not responding to local medication given by the attending local practitioner. Examination by torch light showed the presence of a thin, threadlike coiled structure in the superior bulbar subconjunctival space in a congested eye.

Visual Acuity of the patient was 6/6. There was lid edema with conjunctival congestion. Cornea appeared normal and there was no evidence of anterior chamber reaction. Both pupils were circular and reacting to light. Fundus findings only revealed the presence of a early nuclear sclerosis.

Slitlamp examination showed a wormlike structure in the superior subconjunctival space. Teasing of the structure with a cotton swab under topical anesthesia showed the presence of a motile

for Histopathology examination.

Systemic examination of the patient did not reveal any evidence of lymphangitis or any subcutaneous swellings or nodules.

Further investigations including hemogram , x-ray chest, urine and stool examination were normal.

Patient was followed up for three weeks with edema and congestion settling down on topical



Bottled worm after removal



Subconjunctival worm

sub-conjunctival worm migrating within seconds to the nasal subconj region and coiling there.

The patient was taken in the O.T. and under topical anesthesia with 4 % xylocaine, a small incision was made in the conjunctiva overlying the coiled worm. A white coloured coiled live worm was visualized and extracted intact carefully with forceps.

Gross examination of the worm showed it to be a 6cm long live worm. The specimen was sent

treatment with steroids and antibiotics. Systemic deworming and a course of Hetrazan (diethylcarbamazine) was also given.

HISTOPATHOLOGY REPORT:

Report suggested that the specimen was an adult female worm of *Wucheraria Bancrofti* type.

DISCUSSION:

Other ocular nematodes reported to be found in the subconjunctival space:

a)LOA LOA:

Nematode endemic in Central and West Africa. Migration of adult worms in and around the eyes and subconjunctival space is most common. Moves at around 1cm per minute causing a foreign body sensation, conjunctival injection, periorbital swelling and itching. Calabar swelling of the eyelids are known.

b)DIROFILARIA:

Filarial worms of carnivorous mammals with worldwide distribution. Ocular manifestation most commonly caused by a migrating worm typically involving eyelid or conjunctiva. Intraocular worms are also known.Only treatment required is surgical removal.

c)MANSONELLA PERSTANS:

Filarial nematode of humans mainly found in Africa, Carriibbean, Central and South America.

Ocular manifestations caused by immature adult worm. It can give rise to eyelid swelling, conjunctival nodule and proptosis.

d)ASCARIASIS:

Extremely rare but adult *Ascaris Lumbricoides* has been recovered from the nasolacrimal duct presumably after migrating up from the esophagus to the nasopharynx.

e)DRACUNCULOSIS:

Dracunculus medenensis, the guinea worm. Only confirmed case of ocular dracunculosis was isolated from conjunctiva.

f)ANGIOSTRONGYLISIS:

Angiostrongylus cantonensis, the rat lung worm endemic in the Far east, Oceania, also Egypt and Cuba. Worms in various stages of development have been recovered from the anterior chamber, vitreous and sub retinal space.

g)GNATHOSOMIASIS:

Gnathostoma spinigerum, intestinal nematodes of felines and canines. Ocular manifestations are direct invasion of the eye or surrounding tissues by the migrating larvae. Worms are able to directly invade ocular structures causing corneal ulcerations, iris perforations, sub retinal holes, optic neuritis, retinal arterial occlusions.

h)FILARIASIS:

Lymphatic filariasis caused by *W. Bancrofti* found in Asia, Africa with foci in Latin America and Caribbean. *B. malayi*, *B. timori* found in South East Asia. Transmission is by mosquito bite. Larvae migrate to lymphatic vessels where they develop into adult worms who produce microfilariae. Adult *W. bancrofti* worms are 4 to 8 cms in length. Adult *Bugia* species are 2 to 4 cms. Adult worms can live

in the lymphatic vessels for upto a decade. Clinical manifestations are due to obstruction (elephantiasis, hydrocele) and inflammation (lymphangitis, epididymitis and orchitis). Ocular manifestations usually result from aberrant adult worms migrating to the conjunctiva causing pain, chemosis and congestion. Also found in eyelid, lacrimal gland, anterior chamber, iris, subretina. Elephantiasis of the eyelid is known. Treatment includes surgical removal of the worm with systemic evaluation for filariasis.

References:

- 1) Mayank A.Nanavaty,MBBS;Ambarish J.Nanavaty,MS,DO,FICO;Jitendra D.Lakhani,MD,TDD;Sucheta J.Lakhani,PhD;Abhay R.Vasavada,MS,DO,FRCS,Subconjunctival adult Bancroftian Filarial worm. *Indian Journal of Ophthalmology* 2001;49:195-96.
- 2)George M,Kurian C,Conjunctival abcess due to *dirofilaria conjunctivae* *J Indian Med Assoc.*1978 Sep1;71(5):123-4
- 3) Shekhar KC,Pathmanathan R,Krishnana R.,Human infection with *dirofilaria repens* in Malaysia. *J Helminthology.*1996 Sep;70(3):249-52
- 4) Ruiz-Moreno JM,Bornay-Llinares FJ,Prieto Maza G,Medrano M,Simon F,Eberhard ML. Subconjunctival infection with *dirofilaria repens*:Serological confirmation of cure following surgery. *Arch Ophthalmology* 1998 Oct;116[10]:1370-2
- 5)Albert & Jakobiec . *Principles & Practice of Ophthalmology*, 2nd edition W. B. Saunders Company, 136-147,4926-4930

The human plagiarism which is most difficult to avoid, for individuals ... is the plagiarism of ourself.

Marcel Proust (1871–1922), French novelist.

Self-plagiarism is style.

Alfred Hitchcock (while defending repetition of his filming techniques)