

## INTRA-OCULAR CYSTICERCOSIS—A CASE REPORT

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**Abstract**—A young male patient presented with a cysticercosis cyst in the vitreous body, in front of the retina. The cyst was surgically removed with a pars plana vitrectomy, with good postoperative visual results. The associated signs and symptoms, lab. work-up, and investigations that confirmed its diagnosis are discussed. A review of recent literature on the management of cysticercosis, is analyzed.

### Case History:

Mr. Raman, a 29 year old male, presented with a complaint of blurring of vision in the left eye for a few days.

On examination, the right eye was normal. The Left eye had a vision of 6/12. The Cornea, anterior chamber, pupil were normal.

Slit lamp Examination showed a small opacification in the posterior surface of the lens.

The Fundus showed vitreous haze, localized in the lower half, of the vitreous. A clearly defined, spherical, white mass somewhat resembling a dislocated lens, was seen in the vitreous body and anterior to the retina, freely mobile, lying in the lower temporal quadrant. This mass showed occasional contractile waves passing through it.

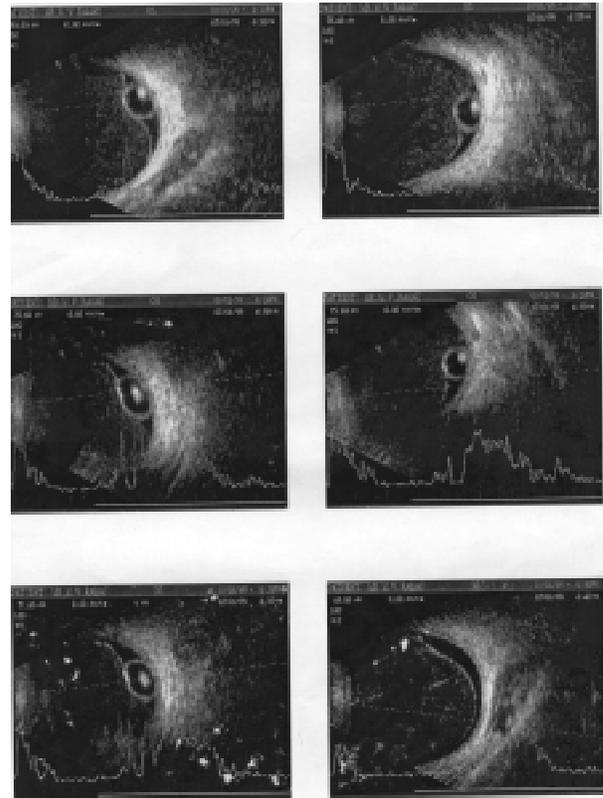
Systemic examination. Showed the presence of subcutaneous nodules on the scalp, and neck.

Investigations:

Eosinophil count-20 ; W.B.C count 8600 cells/cu mm. ESR..15mm/hr.

CT Scan-Multiple neurocysticercosis cysts involving superior and medial rectus bilaterally and right lateral rectus.

B-scan-Left sided mobile vitritis with complete mobile posterior vitreous detachment and multiple cystic lesions seen in both the orbits suggestive of cysticercosis.



Stools- negative for any form of helminthiasis.

An excision biopsy of a subcutaneous nodule, was done. It's histopathology confirmed the diagnosis of cysticercosis.

### Treatment:

A 3-port pars plana vitrectomy was done, and the cyst removed.

Post-op recovery was uneventful.

A month after surgery, the patient has 6/6p vision in his left eye. The eye is quiet. Fundus shows a healed chorioretinitis patch in the lower temporal quadrant. The subcutaneous nodules have also disappeared.

**Discussion:**

Cysticercosis is endemic in rural India. On questioning, this patient gave history of visiting his native place, a village close to Salem in south India. He had stayed there for 4-5 months. The village receives potable, drinking water once in 3 days. The villagers hence often drink stagnant contaminated local water, with no form of sterilization.

Although, cysticercosis is caused by larvae of pork tapeworm, our patient was a vegetarian; hence, this case confirms a faeco-oral route of transmission, probably through contaminated water.

On seeing ocular cysticercosis, we naturally expect involvement of the CNS. Cysticercosis affects 50 million people world-wide and in fact is the leading cause of adult onset epileptic fits. On direct probing the patient confirmed that he had chronic headaches, giddiness and even epileptic fits, but surprisingly, he did not of his own consider this to be worth telling to an ophthalmologist. In fact, 3 months back, he had even consulted a neurologist, for his fits; the neurologist had done a CT-Scan brain and an EEG, and both the tests being normal had started him on phenobarbitone. The epileptic fits, since then had come under control. However, it is interesting to note that despite having CNS symptoms, the patient's CT scan repeated now, also does not show any brain involvement.

This is a unique presentation, wherein the patient has cysts localised only in one orbit, in the extra-ocular muscles and within the globe, although he does have systemic manifestations in the form of subcutaneous nodules.

Systemic disease requires anti-helminthic treatment with Praziquantel or Albendazole. However, the presence of an intra-vitreous cyst is a contraindication for the systemic use of these anti-helminthic drugs as the intra-ocular death of a worm can cause a severe allergic blinding pan-uveitis.

Hence, we started the patient on systemic steroids to control the intra-ocular inflammation, tapered the steroids, and then surgically removed the cyst. We then treated him with albendazole because his

seizures suggest a cerebral involvement. If however the patient does not have neuro-cysticercosis, it is still debatable if any anti-helminthic treatment should be given at all, as randomized placebo controlled trials with selected patients have shown no clinical or radiologic benefit from the addition of cestocidal therapy to symptomatic care.

Review of recent literature has also shown excellent response to surgical management of intra-ocular cysticercosis. Long term prognosis is also good. However, it is important to follow-up the patient with a neuro-physician to prevent further seizures or CNS complications.

It is also important to counsel the patient and his relatives coming from the same native place regarding the spread of this disease, so that they can take corrective measures.

Very often the typical presentation of cysticercosis, or a positive ELISA test suggests the diagnosis. In our case, however, the histopathological diagnosis of the subcutaneous nodule confirmed the diagnosis of cysticercosis.

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Note: the contractile wave through the cyst

