

# Ocular Cysticercosis – A Case Report

Dr. Kousik Sarkar<sup>1</sup>

<sup>1</sup>Post Graduate Trainee, Upgraded Department of Ophthalmology, Assam Medical College & Hospital, Dibrugarh, Assam, India  
drsarkar.k2011[at]gmail.com

**Abstract:** A 12 year old girl with bilateral persistent pupillary membrane presented with painless progressive blurring of vision of right eye. Fundus examination & photography showed subretinal scolex with retinal detachment. Patient was treated with sub-tenon triamcinolone, oral prednisolone & oral albendazole.

**Keywords:** Subretinal cysticercosis, PPM, sub-tenon triamcinolone

## 1. Introduction

Ocular cysticercosis results from development of larva of *Taenia solium*, *Cysticercus cellulosae*, in the eye. It is caused by the human ingestion of the eggs of *Taenia solium*. Intraocular cysticercosis may be asymptomatic in early stages when the parasite is minute. As the parasite increases in size, it can cause gradual, painless, and progressive loss of vision or inflammation in the eye. When found in the eye, the cysticercus embryo is most commonly located beneath the retina at the posterior pole. It may migrate from one area of the fundus to another beneath the retina, or it may penetrate the retina and enter the vitreous cavity [1].

## 2. Case Report

A 12-year-old girl presented with history of painless, progressive blurring of vision, irritation and occasional redness of right eye, since last 1 month. She also complained of perception of dark spots in her right eye. Previous ocular history was unremarkable.

On Examination

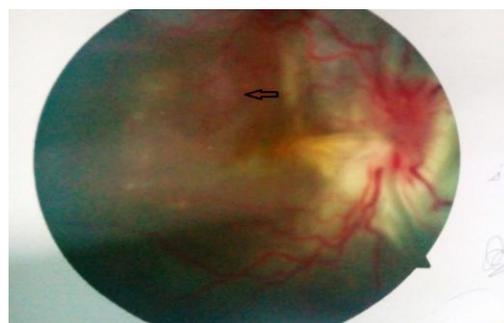
- Visual acuity of right eye was FC+ at 1 metre at the time of presentation, and visual acuity of left eye was 6/6.
- Anterior segment examination revealed stellate shaped strands of tissue running from anterior lens capsule towards iris in both eyes (Fig. 1)
- No inflammatory sign was present in anterior segment of right eye.
- Vitreous showed mild vitritis in right eye.
- Fundus Examination of right eye showed oedematous optic disc with tortuous vessels. There was a raised sub-retinal lesion supero-temporal to the macula about one disc diameter in size with shallow exudative retinal detachment.
- Fundus of left eye was normal.



**Figure 1:** Persistent pupillary membrane in both eyes

- Fundus photography of right eye showed optic disc oedema, tortuous vessels, a circumscribed lesion supero-temporal to macula and a shallow paramacular retinal detachment. (Fig. 2)
- Ultrasonography B-scan of right eye showed vitreous opacities, retinal elevation and cystic lesion with small solid nodular area in sub-retinal space assumed to be scolex of cysticercus. (Fig. 3)
- Blood picture showed eosinophilia with mildly raised ESR.

**Going through patient's history, demographic information, fundus appearance by indirect ophthalmoscopy, and USG B scan subretinal cysticercosis was the presumptive diagnosis, though to be confirmed by biopsy.**



**Figure 2:** Fundus photography



Figure 3: USG B scan

## References

- [1] Rogell G. Infectious and inflammatory diseases. In: Duane TD, Tasman W, Jaeger EA, eds. Duane's Clinical Ophthalmology, Vol 5, Chapter 33. Philadelphia: Lippincott, 1989
- [2] Mais FA. Criocirurgia na cisticercose ocular. Rev Bras Ophthalmol 1969; 28:99-106
- [3] Malik SR, Gupta AK, Choudhry S. Ocular cysticercosis. Am J Ophthalmol 1968; 66:1168-71

- The patient was treated with sub-tenon triamcinolone 2 doses, 15 days apart, oral prednisolone 1 mg/ kg body wt for 1wk, then tapered and oral albendazole 400 mg twice daily for 10 days.
- Patient was followed up at 15 days & 1 month. Visual acuity was slightly improved to 6/60 at 1 month and further planned for vitrectomy and removal of the cyst, but the patient did not come for further follow up.

## 3. Discussion

Cysticercosis is contracted by intake of vegetables or water contaminated with the eggs of *Taenia solium*. Ocular involvement occurs in 13% to 46% of infected patients. [2] The most frequent and severe manifestation of ocular cysticercosis is involvement of the posterior segment. [3] The larvae enter the subretinal space via the central retinal artery or posterior ciliary arteries.

The vision of eyes with ocular cysticercosis can be well-preserved unless the parasite is localized in the macular area, an associated retinal detachment is present, or the intraocular inflammation is severe.

The treatment of choice to subdue the effects of the larvae is to surgically remove the cysticercus while it is still alive. Surgical procedures for removing the parasite in toto have had varying degrees of success.

## 4. Conclusion

Subretinal cysticercosis is one of the manifestation of ocular cysticercosis. Patients afflicted with the infection have a poor prognosis unless surgical attempts to remove the cyst can be implemented before the organism dies within the eye.

Currently, oral antihelminthic agents have been ineffective in eradicating the organism and its sequelae. Photocoagulation and transcleral and transretinal procedures have been reported to be the most safe and effective treatment.

Future medications and perhaps intravitreal administration of antihelminthic therapies may prove beneficial for the treatment of subretinal cysticercosis.