

# A Non Responding Case Of Extraocular Muscle Cysticercosis Mimicking As Pseudo-Tumor Orbit In A Child

N Tuli

## Citation

N Tuli. *A Non Responding Case Of Extraocular Muscle Cysticercosis Mimicking As Pseudo-Tumor Orbit In A Child*. The Internet Journal of Ophthalmology and Visual Science. 2009 Volume 7 Number 2.

## Abstract

**Introduction:** Presentation of one case of extraocular muscle enlargement caused by cysticercosis, its clinical, diagnostic and treatment aspects. The case was not responding to the routine medical treatment given in a cysticercosis case. **Case Report:** A female 14-year-old patient with history of headache and red eye was treated for ophthalmic migraine but later found out to be a case of extraocular muscle enlargement and a small cystic lesion at the medial rectus muscle. Computerized tomography disclosed a medial rectus muscle thickening. MRI showed cystic lesion and as the cystic lesion was not responding to routine medical treatment given for cysticercosis, excisional biopsy was done and histopathological study conducted to reconfirm the clinical suspicion of cysticercosis. **Conclusions:** Extraocular muscle cysticercosis is the most common site of this disease when involving the orbit. Oral albendazole and prednisone are not effective thus their role in ocular cysticercosis need to be studied.

## INTRODUCTION

Orbital cysticercosis is well documented but isolated involvement of extraocular muscle by *Cysticercus cellulosa* is uncommon. We recently examined a child treated for 3 months as a case of ophthalmic migraine and 6 months as pseudo-tumor orbit. That was later diagnosed to have orbital cysticercosis. This case reports emphasize that cysticercosis should be included in differential diagnosis of extraocular muscle enlargement especially in children of developing countries like India.

## CASE REPORT

A 14 yr old female child was referred to us with a one and a half year history of left sided headache and redness in left eye and treated as ophthalmic migraine for 3 months with no relief of symptoms.

On examination her visual acuity was 20/20 in both eyes. Eyes well orthophoric and slight limitation of left abduction was found. Congestion was noted over the left Medial Rectus (Figure 1). Exophthalmometry showed proptosis of 2mm of left eye. Her past medical history and general physical examination was unremarkable.

## Figure 1

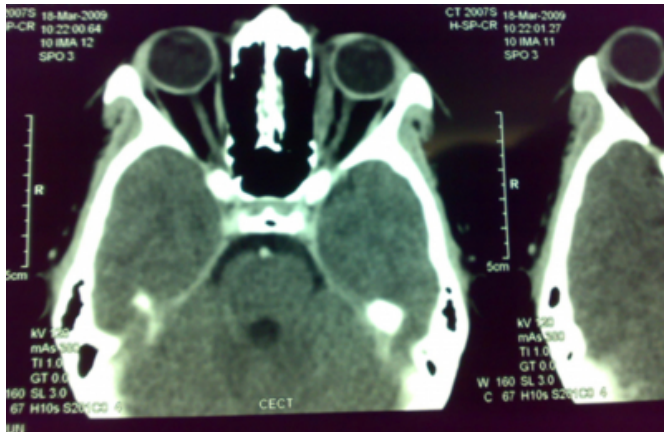
Figure 1: Showing congestion over medial rectus



CT scan was ordered which showed it to be a case of left side Medial Rectus myositis. (Figure 2) She was treated with high dose oral steroids for 6 months with some transient relief but recurrence of symptoms on stopping the steroids.

**Figure 2**

Figure 2 – Showing CT scan



As the response to steroids was atypical, CT scan was reviewed. CT scan disclosed a small cyst in left Medial Rectus that was presumed to be ocular cysticercosis and had been overlooked earlier. Patient was suspected as a case of ocular cysticercosis and was put on Albendazole and oral steroids for 1 month. Despite the treatment cyst increased. No response to the Albendazole put us in dilemma. MRI was ordered which showed a cyst confined to medial rectus (Figure 3). Excisional biopsy was done (Figure 4) and histopathology showed it to be cysticercosis infection.

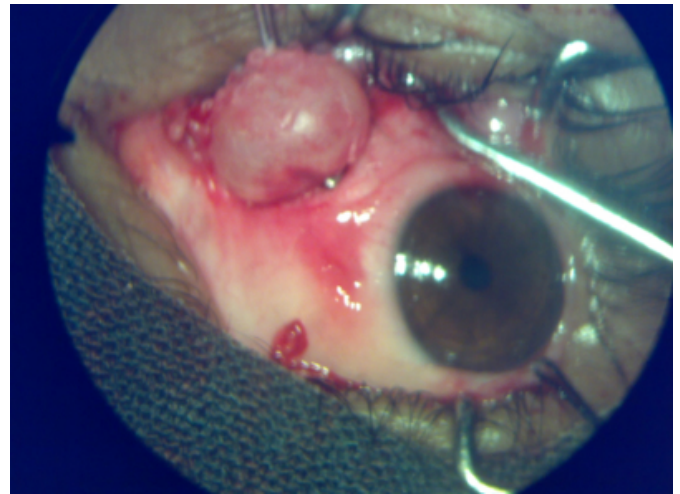
**Figure 3**

Figure 3: MRI of the patient



**Figure 4**

Figure 4: Showing excisional biopsy



## DISCUSSION

Cysticercosis is a serious health problem in developing countries like Latin America, Asia, and Africa especially in area of poverty and poor hygiene [1-2]. It has a world prevalence of 50 million and leading to 50,000 deaths each year. [2] As per the Indian literature, ocular involvement occurs in 1.8 -4.5 % cases only, the ocular adnexa being the preferred site [3]. It has been primarily reported in paediatric and young adult population [4]. Inferior Rectus was commonly involved in one study [5] but in our case Medial Rectus was involved. The predominant symptoms in patients with extra-ocular muscle involvement are protrusion of globe, pain, diplopia, ptosis and diminution of vision but our patient presented with headache which could be due to release of toxins around the degenerating cyst. Our case suggests that a high index of suspicion should be entertained for extra-ocular muscle cysticercosis in every case of recurrent headache especially in child. Brain parenchymal involvement was not seen in our patient as seen in most of the studies of ocular cysticercosis [6].

Imaging modalities like orbital Ultra-sonography, CT scan or MRI brain with orbital cuts are essential for diagnosis but may be overshadowed by marked enlargement of the muscle as occurred in our case.

The therapeutic efficacy of Albendazole and Prednisolone for extra-ocular muscle cysticercosis has been reported to be good, [7] but our case did not respond and excisional biopsy was planned hence more data is required to establish the efficacy of Albendazole in such cases.

Our case therefore serves to emphasize that cysticercosis

should be included in differential diagnosis of extra-ocular muscle enlargement for early recognition and adequate treatment and secondly the efficacy of Albendazole in extra-ocular muscle cysticercosis needs to be studied in detail.

## **References**

1. Coker-Vann MR, Subianto DB, Brown P et al. ELISA antibodies of Cysticerci of *Taenia solium* in human populations in New Guinea, Oceania and South-East Asia. Southeast Asian J Trop Med Public Health 1981; 12: 499-505.
2. Sekhar GC, Honavar SG. Myo-Cysticercosis: Experience with imaging and therapy. Ophthalmology 1999; 106: 2336-40.
3. NH Wadia. Neuro-Cysticercosis. Neurological Practice An Indian Perspective 2005; 215-51.
4. Puri P, Grover AK. Medical management of orbital Myo-Cysticercosis: a pilot study. Eye 1998; 12: 795-9.
5. Sekhar GC, Honavar SG. Myo-Cysticercosis. Experience with imaging and therapy. Ophthalmology 1999; 106: 2336-40.
6. Pushker N, Bajaj MS, Chandra M, Neena. Ocular and orbital Cysticercosis. Acta Ophthalmol Scand 2001; 79: 408-13.
7. Sihota R, Honavar SG. Oral albendazole in the management of extraocular cysticercosis. Br J Ophthalmol 1994; 78: 621-3.

**Author Information**

**Navneet Tuli, MS**

Assistant Professor, Dept. of Ophthalmology, Himalayan Institute of Medical Sciences