

Case Report

Isolated orbital myocysticercosis in a Muslim boy

Anita Thakur, Ruchika Agarwal*, A. M. Jain, Nutan Saxena

Department of Ophthalmology, Rama Medical College and Research Centre, Mandhna, Kanpur, Uttar Pradesh, India

Received: 09 July 2015

Revised: 27 July 2015

Accepted: 11 August 2015

***Correspondence:**

Dr. Ruchika Agarwal,

E-mail: ruchidrjain@yahoo.co.in

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Orbital cysticercosis is secondary to an infestation by *Cysticercus cellulosae*, the larval form of *Taenia solium*. We report a case of isolated orbital myocysticercosis in a four year old non pork eater boy who presented with sign and symptoms suggestive of mass lesion in superior orbit. He was managed with medical line of treatment and showed complete resolution of his symptoms. It becomes important to report this case because of unusual site of the cyst, young age of the patient and to highlight the importance of proper sanitary measures in preventing this disease.

Keywords: Cysticercosis

INTRODUCTION

Cysticercosis is the infestation by *Cysticercus cellulosae*, the larval form of the pork tapeworm, *Taenia solium*.

It is contracted by (a) ingestion of the infective *Cysticerci* in under cooked pork; (b) Ingestion of eggs of *T. solium* in faecally contaminated water, food or vegetables; and (c) Regurgitation of eggs from the small intestine.^{1,2} The commonest form of systemic involvement consists of neurocysticercosis.³ However ocular and adnexal cysticercosis represents the major part of it i.e. 13% to 46% respectively,⁴ out of which approximately only 4% involve the eyelids or orbit.

We report a case of isolated orbital myocysticercosis in a non-pork eater thus highlighting the importance of other sources of infestation.

CASE REPORT

A four year old male child presented with swelling in the left eye for 10 days. Ocular examination showed, ptosis of the left upper lid with poor Levator palpebrae superioris function, eccentric proptosis of the left eye i.e.

downward displacement of the eyeball and restricted movements in the upgaze. Right eye extraocular movements were normal. Child had 6/6 vision both eyes and fundus examination was normal. Systemic examination was normal. MRI orbit showed a well-defined thin walled T2, STIR hyperintense and T1 flair hypointense cystic lesion measuring ~10.0x12.0 mm in the left superior rectus muscle. Eccentric T2 hypointense speck was also seen signifying scolex of the *Cysticercus*. Bulky left superior rectus muscle was seen indenting over left optic nerve. Left superior rectus and LPS muscle showed T2 & STIR hyperintensity with fuzziness s/o Muscle fiber inflammation.

MRI brain was normal. Haematology and serum biochemistry was non-contributory. Repeated stool examination was negative.

Having established the diagnosis of myocysticercosis by imaging technique only as it did not require further validation, the child was started with albendazole - 15 mg/kg/day divided bid PO and oral corticosteroids. Eye examination showed complete relief from all signs and symptoms on a follow up after 15 days, however we continued with the recommended guidelines of

management and completed the full course of treatment for 28 days. Follow up MRI revealed disappearance of the cystic lesion. The patient is under clinical follow up since last 2 years, without any recurrence of the disease.



Figure 1: At presentation child showing ptosis, eccentric proptosis and limitation of movements in superior gaze.



Figure 2: MRI brain coronal section showing well defined thin walled T2, STIR hyperintense and T1 FLAIR hypointense cystic lesion in the left superior rectus muscle. Eccentric T2 hypointense speck was also seen signifying scolex of the Cysticercus.



Figure 3: MRI orbit axial section showing cystic lesion in the superior rectus muscle. Bulky left superior rectus muscle was seen indenting over left optic nerve.



Figure 4: Post treatment child showing improvement in ptosis and proptosis.



Figure 5: Post treatment child showing full recovery of movements in superior gaze.

DISCUSSION

Orbital cysticercosis is a common clinical condition in the developing world. It has myriad clinical presentations depending on the site of lodgement. Cysticercosis occurs in person eating contaminated raw or undercooked pork. Our patient is religiously a non-pork eater, so contaminated vegetables seems to be the source of infestation in our case. We wish to emphasize the importance of proper cleanliness and consumption of well cooked food. According to literature, ocular

involvement of cysticercosis is more common in left eye;⁵ however no obvious reason has been mentioned. ultrasonography (USG), computed tomography (CT) and magnetic resonance imaging (MRI) are the various imaging modalities for diagnosing cysticercosis. MRI is the best imaging modality for evaluation of orbital cysticercosis with its added advantage of detecting neurocysticercosis. Although isolated myocysticercosis is of common occurrence but one should investigate the patient fully for other sites of infestation as well. As undiagnosed intraocular and intracranial cysticercus cyst, while involuting leads to severe inflammatory reaction which if not treated on time may lead to blindness. Medical management in orbital cysticercosis is extremely effective to achieve clinical resolution in most patients. Oral albendazole and systemic steroids have marked clinical response in extraocular cysticercosis⁶ as was seen in our case.

This case report was to emphasize increased awareness of proper sanitation, coupled with a high index of clinical suspicion, may help in early diagnosis and prompt treatment to avoid sight threatening complications.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Daniel Albert, Frederick Jakobiec, Nancy Robinson. Principles & practice of ophthalmology. In: Daniel Albert, Frederick Jakobiec, Nancy Robinson, eds. A Book. 2nd ed. Philadelphia: W.B. Saunders Co; 1994: 462,1711-1751,2308,2319,3073.
2. Ryan SJ. Ocular cysticercosis retina. In: Ryan SJ, eds. A Book. 2nd ed. St. Louis (USA): CV Mosby and Co; 1994; 2.
3. Das D, Deka S, Islam S, Deuri N, Deka P, Deka AC, et al. Neuro and intraocular cysticercosis: a clinicopathological case report. Eye Brain. 2010;2:39-42.
4. Sekhar GC, Honavar SG. Myocysticercosis: experience with imaging and therapy. Ophthalmology. 1999;106:2336-40.
5. Duke-Elder S. Cysticercosis. In: Duke-Elder S, eds. System of Ophthalmology. 1st ed. St. Louis: CV Mosby; 1978: 40.
6. Sihota R, Honavar SG. Oral albendazole in the management of extraocular cysticercosis. Br J Ophthalmol. 1994;78:621-3.

Cite this article as: Thakur A, Agarwal R, Jain AM, Saxena N. Isolated orbital myocysticercosis in a Muslim boy. Int J Res Med Sci 2015;3:2485-7.