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Case Report

Orbital myocysticercosis: a rare case report

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ABSTRACT

We describe a case of ocular myocysticercosis in a 26-year-old male patient, who presented with sudden onset proptosis of the right eye and double vision for 8 days with no history of trauma. MRI showed well defined peripherally enhancing intraconal lesion suggestive of myocysticercosis in inferior rectus muscle. On administration of low dose oral steroids followed by anthelminthic medications, patient showed marked resolution of symptoms.

Keywords: Myocysticercosis, Inferior rectus, Proptosis

INTRODUCTION

Cysticercosis is a systemic disease caused by a cestode *Taenia solium*, that preferentially affects the subcutaneous tissue, brain, muscle, but may affect the eyes. Cysticercosis may be extraocular or intraocular and may present with varied clinical symptoms. There are a limited number of such reported cases and further research is required in understanding the symptoms and developing other modalities of treatment for the disease.

CASE REPORT

History

A 26 year-old male presented to the out-patient department (OPD) of department of ophthalmology, Assam medical college and hospital, Dibrugarh, with the complaints of a sudden onset, progressively increasing proptosis of the right eye for last 8 days associated with pain which accentuated on eye movement and double vision in upgaze. There was no complaint of any diminution of vision, trauma, redness, discharge or fever.

Examination

On examination, slight facial asymmetry was noted (Figure 1). The BCVA was 6/6, N6 in both eyes, slit lamp examination for anterior segment was normal and dilated fundus examination revealed MO abnormality. The extraocular muscle movement were full in all gazes (Figure 2) Proptosis as measured by Leudde's exophthalmometry came out to be 25 mm (OD) and 20 mm (OS) (Figure 3). Intraocular pressure was within normal range. Regional lymph nodes were not enlarged. Left eye was normal on examination. General examination revealed no abnormality. A provisional diagnosis of optic nerve tumor was made.

Figure 1: Patient at presentation.

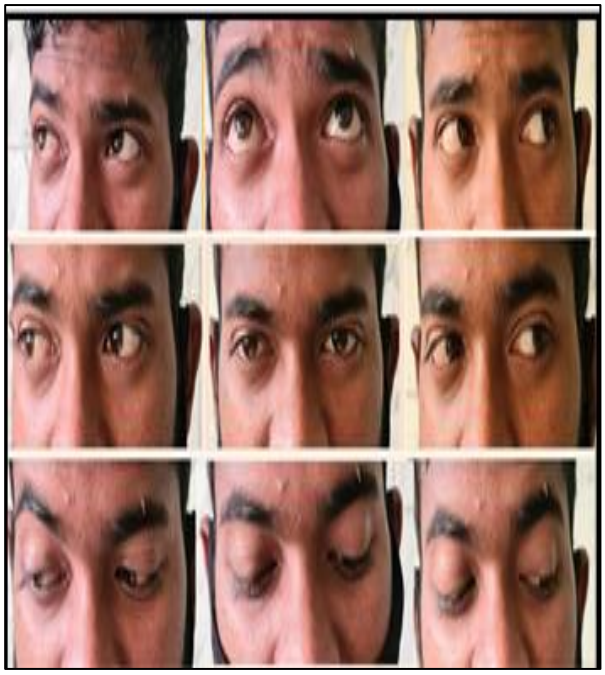

Figure 2: Extraocular muscle movement.

Figure 3: Leudde's exophthalmometry.

Investigation

On investigating the case, routine investigations showed rise in ESR. CT scan brain with orbit showed hyperdense lesion in the right retroorbital area in the region of the optic nerve, suggestive of (?)optic nerve glioma (Figure 4). For confirmation, MRI orbit was done which revealed well-defined, peripherally enhanced intraconal lesion measuring approximately 1.58(AP)×1.0(TR) ×0.9(CC) in the infero-medial aspect of right orbit abutting the inferior rectus muscle of the right eye (Figure 5). There was no evidence of neurocysticercosis (NCC), and the involvement of brain was ruled out with CT scan. The stool was also positive for cysts. Other laboratory investigations were non-contributory. A diagnosis of inferior rectus ocular cysticercosis of right eye was made.

Figure 4: CT scan brain with orbit.

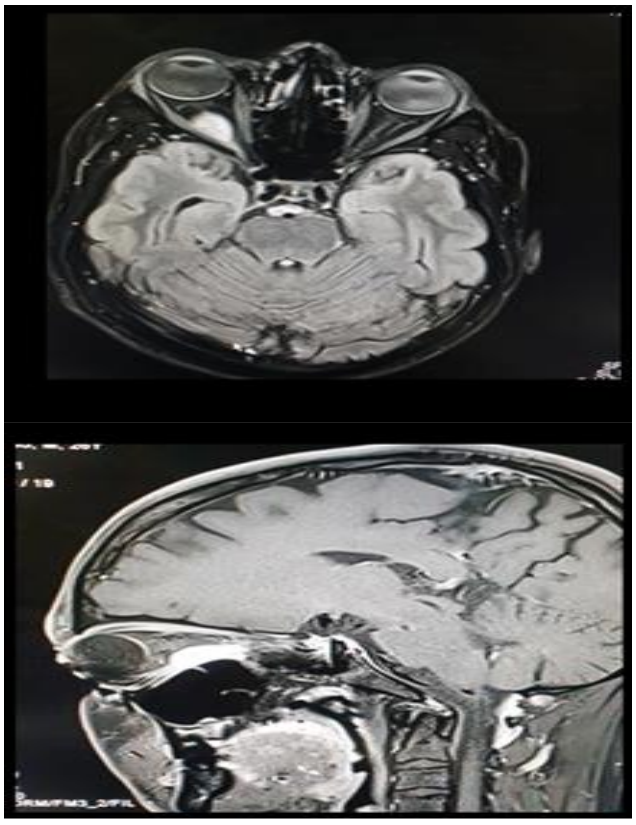

Figure 5: MRI brain with orbit.

Management

The patient was started on oral albendazole (15 mg/kg/day) as 400 mg oral tablets twice a day and oral prednisolone (1 mg/kg/day) for 4 weeks slowly tapered over the next one month, after consultation with department of medicine. Oral albendazole was stopped after 14 days. Significant signs of improvement, decrease in proptosis was noted within a few days of starting the resolution of other symptoms including double vision.

Follow-up

Patient was regularly followed up in the OPD which showed significant improvement. Proptosis had reduced to 22 mm and diplopia had resolved (Figure 6). Patient is still under follow-up and careful monitoring is done to detect any new lesion or functional deficit.

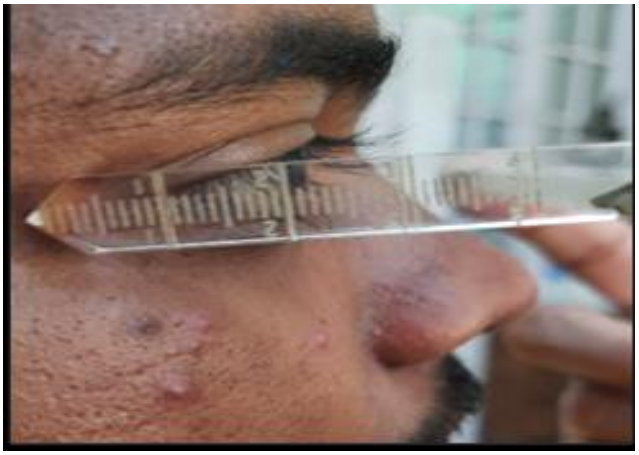

Figure 6: Patient on follow-up, proptosis reduced to 22 mm.

DISCUSSION

Ocular infestation by *Cysticercus cellulosae* is very rare except in highly endemic areas.[1] Orbital cysticercosis present with varied clinical findings and result in significant ocular morbidity.[2] Typically affects young individuals and can be diagnosed by imaging modalities.[3] Only one similar case was reported in a thirteen year old female child who presented with mild lower lid swelling and diplopia in upgaze (inferior rectus muscle: *Cysticercus cellulosae* cyst).[4] However, in our case, no definite cause of Diplopia could be elevated. Another case report shows unusual association of multiple brain NCC with ocular cysticercosis involving levator palpebral superioris and superior rectus muscle.[5] Treatment is individualized according to the location of the cyst ranging from medical therapy to surgery.[6] Despite resolution with medical management, significant proportion may have residual functional deficits.[3] David et al studied 25 patients with ocular cysticercosis where most cases were surgically managed without residual effects.[7]

CONCLUSION

Cysticerci can lodge themselves in any part of the ocular and extra ocular tissue. The clinical presentation may vary depends on the location of the cyst and treatment has to be individualized for each patient which will determine the ultimate functional outcome. Newer modalities of confirmatory diagnosis and treatment requires further study till then preventing the infection should be focused upon by improving sanitation and raising health awareness.

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