

Isolated Ocular Cysticercosis: A Case Report

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Abstract

A 25 years old male presented to ophthalmology department at T.S. Misra Medical College and Hospital Lucknow with complaints of painful, reddish, swelling in his- left eye. A CT scan showed space - occupying ring enhancing lesion in the left medial rectus muscle and histomorphological diagnosis confirmed cysticercosis.

KEYWORDS: Cysticercosis, eye

Introduction

Cysticercosis is caused by the metacestode or larval form of pork tapeworm *Taenia solium*. Human are definitive hosts and pigs are intermediate hosts. In intraocular cysticercosis, humans become the intermediate host by ingesting eggs of *T. solium* from contaminated food or water. Cysticercosis is seen in all ethnic group regardless of dietary habits.¹ It lodges frequently in muscles, central nervous system and the eye.² Ocular cysticercosis was first reported by Soemmering in year 1836.³ Ocular cysticercosis may be extraocular i.e. in subconjunctiva or orbital tissue, or may be intraocular i.e. in vitreous, subretinal space or anterior chamber.⁴ In eye, the cysticercosis cyst may be most commonly found in subretinal region and least commonly in orbit. Involvement of conjunctiva is most common site in India whereas posterior segment of eye is most commonly involved in western countries.⁵⁻⁷ Clinical features depend on the site of lodgement of the parasite. Decreased vision, pain, and recurrent redness of the involved eye are common symptoms of intraocular cysticercosis.

The most detrimental location is subretinal and intravitreal, as parasite not removed from these sites may lead to blindness in few years.⁸ Intraocular cysticercosis are usually secondary to systemic infection. Here we are presenting a case of isolated ocular cysticercosis which is uncommon.

Case report

A 25 years old male patient presented to ophthalmology OPD of T.S Misra Medical College with complaint of gradually enlarging painful, reddish swelling in left eye. Vision was normal with no restriction of extraocular movements. Fundus examination was normal. Routine examinations were within normal limits. CT scan showed space occupying ring enhancing lesion of left medius rectus muscle. No ova or cyst was found on stool examination and no neurocysticercosis was found. There was no CNS or any other systemic involvement. Morphologically the cyst was about 1 cm in size. It was circumscribed, tan and show a small pearly white spot with in the cavity. Histopathology of the cyst

confirmed the diagnosis of ocular cysticercosis. Hematoxylin and eosin stained sections show characteristic three-layered wall namely the ciliated cuticle, muscle layer and a tegumental cell with calcified corpuscles with a branching protoscolex.

Discussion

Teniasis is rarely seen in vegetarians, but cysticercosis occurs in all ethnic groups regardless of dietary habits. Ocular involvement is seen in 13-46% of the infected patients.⁹ Subconjunctival site is most common in India might be because of dry, hot and dusty environment of tropical countries, which could be a modifying factor. The differential diagnosis of ocular cysticercosis is abscess, hematoma tumors or other parasitic infestations like hydatid cyst.

Conclusion

Cysticerci are larval form of tapeworms found within a fluid filled cyst. In the presented case the patient carry no CNS or any other systemic involvement of cysticercus cellulose. Ocular cysticercosis usually occurs as part of systemic infection and isolated involvement of eye is uncommonly found. The tissue reaction of inflammation is less or minimal when cyst is alive than when it is dead and the degeneration and absorption of the dead parasite results to a marked inflammatory tissue reaction.^{10,11} Our patient was strictly vegetarian and did not gave any history of seizures and all relevant investigations were normal. The lesion in CT scan indicated cysticercosis as its one of the differential diagnosis which was confirmed by histopathological examination.

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Figure 1: H & E section showing scolex with sucker and hooklets surrounded by a well-defined cyst wall

