

A Free-floating Intravitreal Cyst in Adult Female: (A Ball in the Vitreous)

Aditi Pandey¹, K Stephen Sudhakar², C Shankar³

¹Post Graduate, Department of Ophthalmology, Chettinad Medical College and Research Institute, Kancheepuram, Tamil Nadu, India, ²Professor and Head of Department, Department of Ophthalmology, Chettinad Medical College and Research Institute, Kancheepuram, Tamil Nadu, India, ³Professor, Department of Ophthalmology, Chettinad Medical College and Research Institute, Kancheepuram, Tamil Nadu, India

Abstract

A 49-year-old female presented with floaters in LE for 2 months. The uncorrected visual acuity was 6/6 in RE and 6/6p in LE. Ophthalmological examination of both eyes revealed a normal anterior segment. Fundus examination with slit-lamp biomicroscopy with a 90D lens was normal in the right eye, but in the left eye, a single oval cyst with pigmented walls was seen floating freely in the mid-vitreous. B-scan ultrasound showed a round uniloculated cyst with high-intensity echoes on its walls with no internal reflectivity, it was free from surrounding vitreous strands or retina and situated at the posterior vitreous. No evidence of scolex was noted. ELISA for *Echinococcus* and *Taenia solium* was negative. MRI brain was normal. Hence, a clinical diagnosis of an intravitreal cyst was made and the patient is coming on regular follow-up.

Key words: Intravitreal cyst, Pigment epithelial cyst, Vitreous opacity

INTRODUCTION

Intravitreal cysts can be of two types congenital and acquired. Congenital cysts are remnants of the hyaloid vascular system such as Bergmeister's papilla and Mittendorf's dot and are sometimes present in normal eyes noticed incidentally on routine ocular examination.^[1] Acquired cysts may occur in various conditions such as ocular trauma, inflammatory diseases such as toxoplasmosis or intermediate uveitis. They can also be associated with degenerative diseases of the retina and choroid, like high myopia with uveal coloboma and retinal detachment surgeries.^[2] Here, we present a rare case of an intravitreal cyst (pigment epithelial cyst).

CASE REPORT

A 49-year-old female presented with floaters in the left eye for 2 months. History of ocular trauma or inflammation was

negative. The uncorrected visual acuity was 6/6 in the right eye and 6/6P in the left eye. Ophthalmological examination of both eyes showed a normal anterior segment. Fundus examination with slit lamp bio-microscopy with 90D lens was unremarkable in the right eye while in the left eye, a single oval cyst of size 8 DD with pigmented walls was identified floating freely in the mid-vitreous [Figure 1]. Red free Fundus photo showed Increased pigmentation of the cyst wall [Figure 2].

Investigations

B-scan ultrasound showed round uniloculated cyst with high-intensity echoes on its walls with no internal reflectivity [Figure 3]. It was free from surrounding vitreous strands or retina and situated at the posterior vitreous. No evidence of scolex was noted.

TC, DC, and ESR were normal. ELISA for *Echinococcus* and *Taenia solium* was negative. MRI brain was normal and no evidence of cyst was present.

DISCUSSION

Intraocular cysts are classified into three categories according to positions they are present – anterior chamber cyst, retrolental space cyst, and a vitreous cyst. Vitreous cysts are a sufficiently uncommon ocular disorder to be considered an

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Corresponding Author: Dr. K Stephen Sudhakar, D-1304, Purva Swanlake, OMR, Kelambakkam, Near Chettinad Health City, Kancheepuram, Tamil Nadu, India.

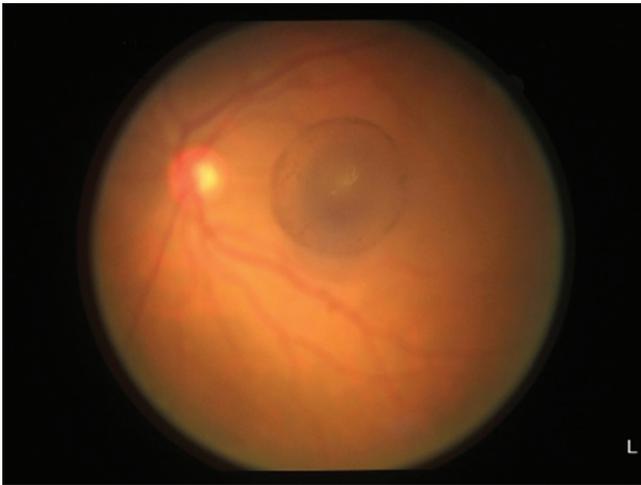


Figure 1: LE shows a single cyst in the vitreous cavity with pigmented walls floating freely

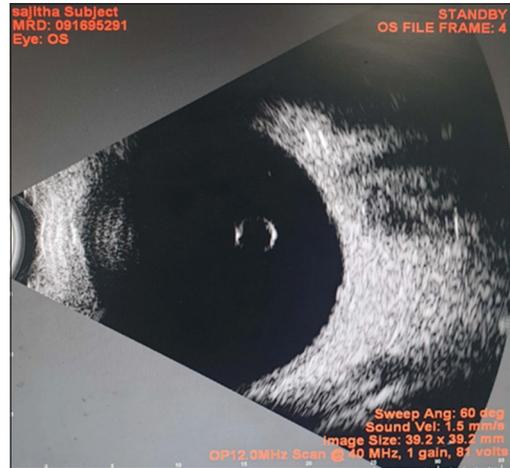


Figure 3: B-scan shows free-floating cyst in mid-vitreous

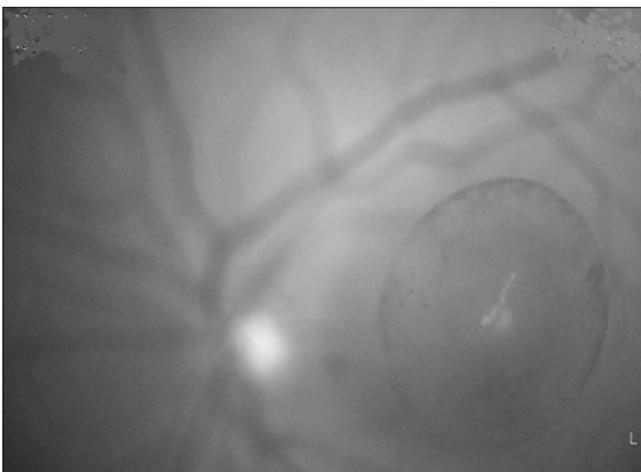


Figure 2: Red free picture after 2 months follow-up

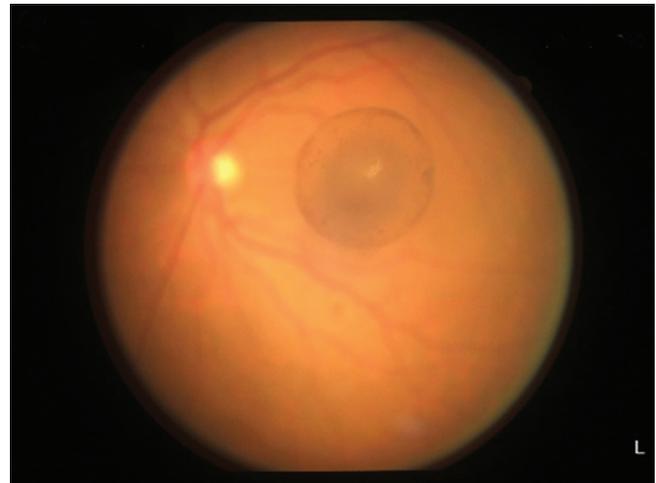


Figure 4: Patient came for follow-up after 2 weeks. No change in shape and size noted

“ocular curiosity.” This condition has been seen to occur in younger patients of 6–8 years old^[3-5] although it can be seen in any age group, common in 10–20 years of age. They can be single monolateral, single bilateral, and multiple monolateral. Cyst measurement ranges from 0.15 mm to 12 mm, and shapes may be from spherical, lobulated, or oval, and the cyst surface can be smooth or sharp. Cysts can be nonpigmented (yellow-gray) or pigmented (brown) appearance.

In our case, the cyst is unilateral, pigmented, and there is no evidence of progression except for increased pigmentation on a subsequent visit [Figures 4 and 5].

In symptomatic patients, laser photocystotomy or pars plana vitrectomy with cyst excision can be done as a treatment modality. As our case did not have any symptoms other than occasional floaters without affecting the vision, she was treated conservatively and is on regular follow-up.



Figure 5: Patient came for follow-up after 2 months. Increased pigmentation with no change in shape and size noted

This case is presented for its rarity, as only a few approx.50 cases have been reported in the literature. And also, to stress the harmless nature of idiopathic vitreous cysts which do not require unnecessary aggressive surgical intervention.

CONCLUSION

A middle-aged woman who presented with complaints of floaters in the left eye for 2 months was diagnosed with idiopathic intravitreal pigment epithelial cyst after ruling out infective causes by serological tests and neuroradiological investigations and history of trauma was absent. Presently, as the patient is not having any complaints except for occasional floaters with an unaided visual acuity of 6/6, she is kept under regular follow-up.

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