

# Vitreous Cyst: A Case Report

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Vitreous cysts represent a very rare ocular malformation. These cysts can occur in an otherwise healthy eye or in a diseased eye or they can occur in association with the remnants of hyaloid system. We report here a case of a 14-year-old male presenting to us with complaint of painless transient blurring of vision in left eye. Visual acuity was 6/6 in right eye and 6/24 in left eye, which improved to 6/6 once the transient blurring goes away. On examination of the left eye, there was a freely floating cyst in the vitreous. It was translucent, with a smooth, brown-pigmented surface. Rest of the examination was unremarkable. Blood tests including serology were normal. Periodic observation was recommended without any treatment.

**Key Words:** Vitreous Cyst, Visual Acuity, Hyaloid System

**V**itreous cysts represent a very rare ocular condition. Tansley first described it in 1899, as an irregularly spherical cyst that showed lines of pigment on its surface<sup>1</sup>. These cysts can occur in an otherwise normal eye or they can occur in association with the remnants of hyaloid system<sup>2</sup>. Several theories have been proposed for the origin of these cysts but no common agreement has been reached. We report here an unusual case of free floating pigmented cyst in the vitreous.

## CASE REPORT

A 14-year-old male presented to our OPD with complaint of transient blurring of vision in left eye for the preceding 1 month. Patient reported it as a shadow coming in front of him and then going away when he moved his head. His previous medical and surgical history was unremarkable. Patient denied any history of trauma. There was no history of any ocular inflammation or infection.

The clinical assessment comprised a physical examination, blood tests including serology for Toxocara, Toxoplasma gondii, Cysticercosis, Echinococcosis and a blood cell count for eosinophils. All of the blood tests were normal.

Visual acuity was 6/6 in the right eye and 6/24 in the left eye. When the shadow moved away the visual

acuity improved to 6/6 in the left eye. Slit lamp biomicroscopy revealed a normal anterior segment examination with no sign of infection or inflammation, transparent media and reactive pupil. His intraocular pressure was 15 mm Hg in right eye and 14 mm Hg in left eye.

Fundus examination of the right eye was unremarkable. In the left eye there was an ovoid cyst in the vitreous cavity. The cyst surface was smooth and brown in colour (Fig. 2). It was translucent. When the patient was asked to move the eyeball, the cyst freely floated in the vitreous cavity showing that it was not attached to any other ocular structure. Macula, peripheral retina and the Optic disc were normal. No posterior vitreous detachment was seen. Regular follow-up was recommended without any treatment.

## DISCUSSION

Vitreous cysts are classified by most authors as congenital or hereditary. Congenital cysts are thought to be the remnants of hyaloid vascular system<sup>3</sup>. This theory is supported by the histopathological findings of Nork and Millecchia<sup>4</sup>, which shows cyst as a choristoma of primary hyaloid system. Acquired cysts can occur due to ocular trauma or inflammatory conditions like Toxoplasmosis<sup>5</sup> and Intermediate

uveitis<sup>6</sup>. They are also associated with retinal detachment surgery<sup>7</sup> and degenerative retinal and choroidal pathologies, like high myopia with uveal colobomas<sup>8</sup>.



Fig. 1:

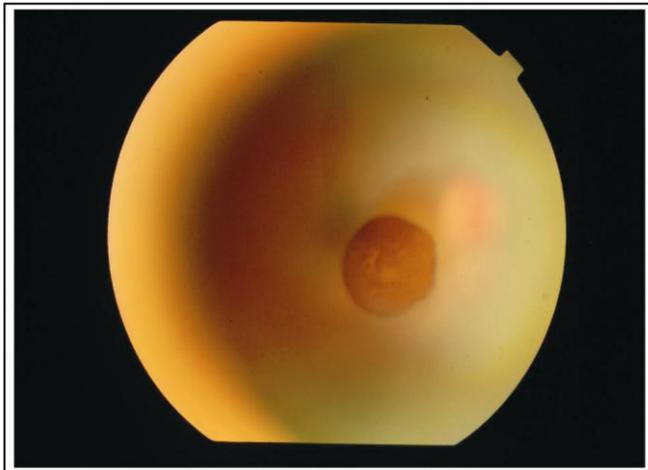


Fig. 2:

Free-floating vitreous cysts are usually of little clinical importance but they should be differentiated from other serious conditions. Pigmented cysts may mimic malignant melanoma. Non-pigmented cysts often resemble parasitic cysts like in cysticercosis. Careful examination and serological tests are essential to reach the correct diagnosis.

Our patient denied any history of trauma, ocular surgery or any inflammation in the past few years. Furthermore the absence of signs of inflammation, like

vitritis, retinitis, choroiditis or vasculitis taken in correlation with normal blood tests ruled out any acquired cause of the cyst. So the cyst was classified as congenital.

Regular follow up was recommended without any treatment as the patients symptoms were only mild and didn't bother him much. In the literature however, Argon laser<sup>9</sup>, Neodymium: YAG laser<sup>10</sup>, and Pars plana vitrectomy with cyst excision has been described as possible treatment options for cysts causing moderate to severe symptoms.

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