



## A Unilateral Free Floating Pigmented Vitreous Cyst (A Short Communication)

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### ABSTRACT

*Vitreous cysts are rare ocular malformation. It can be congenital or acquired. Congenital cysts are pigmented or non-pigmented. Acquired can occur secondary to trauma or ocular inflammation. Free floating vitreous cysts are unusual ophthalmologic findings. We present a case of 11 years old male child who has come to our OPD for routine eye examination with unaided visual acuity of 20/20 in both eyes without any ocular symptoms. Detailed ophthalmic examination revealed a congenital unilateral free floating pigmented vitreous cyst in right eye. Congenital cysts with no troublesome symptoms can be left alone with periodic follow-ups.*

### KEYWORDS : free floating vitreous cyst.

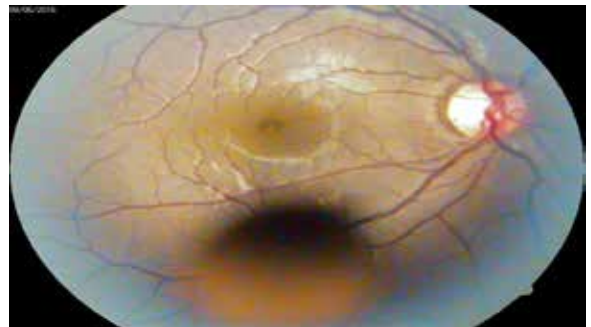
#### Introduction:

Vitreous cysts are rare ocular malformation. It can be congenital or acquired. Congenital cysts are pigmented or non-pigmented, the former usually arise from the ciliary body pigment epithelium, the latter from remnants of the primary hyaloid vascular system. Non-pigmented cysts are typically fixed, attached to the optic disc but can be free floating [1]. Free floating vitreous cysts are unusual ophthalmologic findings so much so that Duke-Elder called them 'ocular curiosities' but it was first described by Tansley in 1899[2,3].

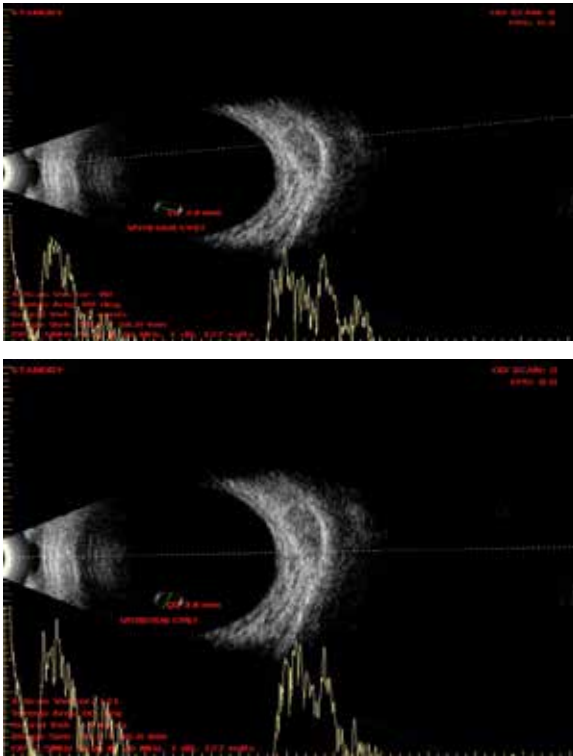
#### Case Report:

A 11 years old male child presented to our OPD for routine examination of eye. No history of transient blurring of vision with changing head posture. No history of ocular trauma or ocular inflammation. The patient had a visual acuity of 20/20 in each eyes without correction. Slit lamp examination of anterior segment biomicroscopy showed no signs of inflammation or alterations in media transparency, the anterior chambers were normal, the iris was normotrophic in both eyes, the pupils were also normal in both eyes. The lens was transparent and in normal position in both eyes. IOP measured with goldmann tonometer was 14mmHg in both eyes.

On fundus examination with direct ophthalmoscope and indirect ophthalmoscope with scleral indentation of right eye showed media to be clear, optic disc, macula and peripheral retina normal. A semi translucent spherical cyst which is smooth brownish yellow in color with pigmented streaks was seen freely floating in vitreous cavity with ocular movements. There were no signs of intermediate uveitis or changes in parsplana. Left eye fundus examination revealed clear media with optic disc, macula and peripheral retina to be normal. B scan ultrasound of right eye detected a spherical hypo echogenic mass with hyper reflective edge floating in the middle of vitreous with 2.8mm X 2.6mm diameter. No PVD detected. Photographs with fundus camera was taken. Axial ultrasound with Colour Doppler showed no remnants of a persistent hyaloid artery and no vessels neither in the vitreous nor within the cyst.



**Figure1. Fundus camera picture showing a single mobile, unilateral, translucent anterior vitreous cyst seen in the backdrop of the retina in right eye.**



**Fig 2. B Scan (dimensions of the cyst-2.8X2.6mm)**



**Fig 3. colour Doppler ultrasound, shows no arterial flow, ruling out the presence of a persistent hyaloid artery.**

Our patient denied any history of ocular trauma, ocular inflammations, surgeries and systemic diseases in the past few years. The absence of vitritis, normal retinal degenerations and pigmentary retinal tracks taken in conjunction with a normal blood test, excluded pneumocele or parasitic infestations.

The clinical assessment comprised a physical examination, blood tests including serology and complete blood count for eosinophilia. All of the blood tests were normal.

Since the patient came for a routine ocular examination and had no other ocular complains beside the incidental finding of cyst, he was advised for regular follow-up without treatment.

**Discussion:**

Intraocular cysts are classified according to its location into those that occur in the anterior chamber of the eye, in the retrolental space and those in the vitreous cavity. These cysts can vary in their numbers and position as single monolateral, single bilateral and multiple monolateral. Their dimensions can range from 0.15mm to 12mm [2].

In literature Vitreous cysts are classified into congenital and acquired. Congenital cysts are thought to arise from ciliary body epithelium or remnants of primary hyaloid vasculature whereas acquired ones are

secondary to trauma, intraocular pathological findings such as intraocular infection, uveitis, retinoschisis and retinitis pigmentosa[4]. It is important to differentiate between a congenital and acquired cyst to establish a correct management of these cases and to understand the pathognomic and further course of the vitreous cyst. Treatment comprises of laser cystotomy or vitrectomy if patient has troublesome symptoms [1].

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