

## SYNCHYSIS SCINTILLANS IN ANTERIOR CHAMBER: A CASE REPORT

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## ABSTRACT

Synchysis scintillans is a condition of vitreous in which there is presence of multiple refractile golden brown opacities due to result of chronic vitreous hemorrhage. Anterior chamber synchysis scintillans was usually described in patients with aphakia or lens subluxation. We report a case of 20 year young male with a history of right eye trauma and complete loss of vision, who presented for whitish opacity in right eye. The detailed slit lamp examination revealed crystals of synchysis scintillans in the anterior chamber. The lens was cataractous and eye was in hypotony. Total retinal detachment was observed on ocular ultrasonography. The other eye was within normal limit.

**KEYWORDS:** Synchysis scintillans, anterior chamber, eye trauma.

## INTRODUCTION

Synchysis scintillans is a condition due to result of chronic vitreous hemorrhage and consist of multiple vitreous opacities that are flat, mobile, highly refractile and golden brown in color.<sup>[1]</sup> This condition appears usually in eyes that have undergone repeated or severe accidental or surgical trauma causing large intravitreal hemorrhages. It is also known as “cholesterolosis bulbi” due to the presence of cholesterol-containing crystals in these opacities.<sup>[2]</sup>

Synchysis scintillans is usually noted in the vitreous cavity, but there were reported cases of anterior chamber synchysis scintillans due to lens subluxation and anterior mobilization of the vitreous through the pupillary area<sup>[3,4]</sup>, although aphakia or lens subluxation may not be required.<sup>[5]</sup>

We report a case of anterior chamber synchysis scintillans with cataractous lens and total retinal detachment.

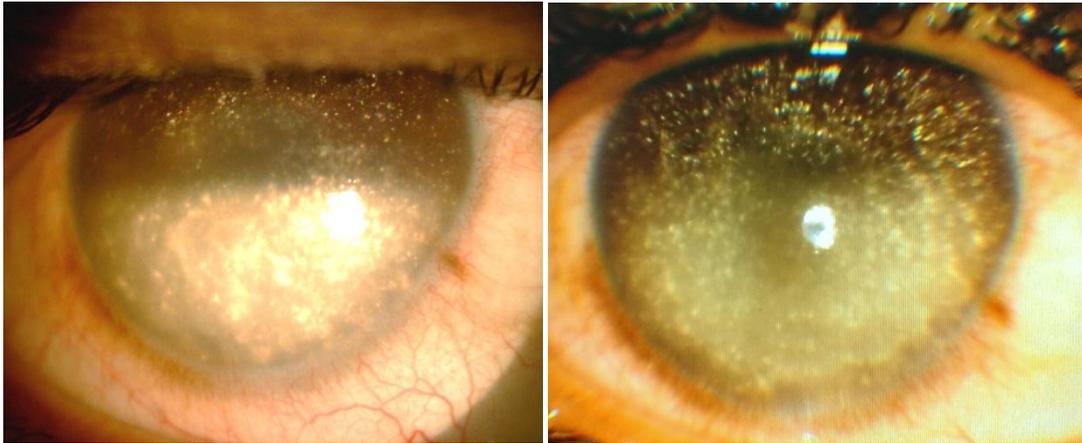
## CASE REPORT

A 20 year young male presented with chief complaints of diminution of vision and whitish opacity in black part of his right eye. The medical history revealed a blunt eye trauma 1 year back with complete loss of vision in right

eye. On initial examination it appeared as pseudo-hypopyon filled up to the half of cornea as shown in figure 1. Ophthalmological examination revealed no light perception in the right eye and best corrected visual acuity of 20/20 in the left eye.

**Figure 1: Showing right eye pseudo- hypopyon.**

On detailed slit lamp examination affected eye had mobile sparkling golden crystals in anterior chamber as shown in figure 2. These crystals moved with extraocular movements with a tendency to accumulate inferiorly. Right eye was in hypotony and IOP of left eye was 14 mmHg. Rest details of right eye were barely visible. The fundus was not visible in the right eye and was normal in the left eye. Ocular ultrasonography revealed cataract and complete retinal detachment in right eye. Left eye was within normal limit.



**Figure 2: Showing synchysis scintillans in anterior chamber.**

## DISCUSSION

Most probably the retinal detachment and lens opacity are consequences of trauma. The retinal detachment itself can cause leakage of cholesterol rich fluid that lead to formation of synchysis scintillans.<sup>[5]</sup> The number and position of crystals located in anterior chamber varied with eye position and movements.

In a study done by Ana Banc. et. Al also revealed synchysis scintillans in anterior chamber due to eye trauma and iris atrophy.<sup>[6]</sup> This atrophic iris created a communication between the anterior and posterior chambers.

Treatment options for anterior chamber synchysis scintillans are limited and address the underlying disease, or the symptoms. In this case the vision loss is irreversible and the patient would not benefit from cataract or retinal surgery because the retinal detachment is more than 1 year.

Periodical ophthalmologic examination is recommended in order to monitor the presence of ocular inflammation or increased intraocular pressure, and consequently prevent painful eye.

In conclusion, synchysis scintillans appearing in damaged eyes contributes to the anterior chamber mobilization of the vitreous crystals.

## REFERENCES

1. Sebag J. Vitreous Anatomy and Pathology. In: Ophthalmology, 4th ed. Yanoff M, Duker JS, editors. Elsevier Saunders, 2014; 430-6.
2. Andrews JS, Lynn C, Scobey JW, Elliott JH. Cholesterosis bulbi. Case report with modern chemical identification of the ubiquitous crystals. *Br J Ophthalmol*, 1973; 57(11): 838-44.
3. Park J, Lee H, Kim YK, Chae JD, Lee HJ. A Case of Cholesterosis Bulbi with Secondary Glaucoma Treated by Vitrectomy and Intravitreal Bevacizumab. *Korean J Ophthalmol*, 2011; 25(5): 362-5.
4. Beebe J. Synchysis Scintillans and a Crystal Pseudohypopyon. *EyeRounds Online Atlas of Ophthalmology* [cited May 2015]. Available from: <http://webeye.ophth.uiowa.edu/eyeforum/atlas/pages/Synchysis-scintillans-crystalpseudohypopyon/index.htm>
5. Sanmugasunderam S, Giligson A, Choi SB. A “sparkling” eye. *Can Med Assoc J.*, 2003; 169(4): 319.
6. Banc, Ana, and Cristina Stan. “ANTERIOR CHAMBER SYNCHYSIS SCINTILLANS: A CASE REPORT.” *Romanian journal of ophthalmology*, 2015; 59,3: 164-6.