

CHRISTMAS TREE CATARACT: A GLITTERING CATARACT

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ABSTRACT

The Christmas tree cataract is an opacification of lens characterized by needle shaped polychromatic deposits in the deep cortex, may or may not be associated with vision loss. Here I report a case of Christmas tree cataract with mild visual loss, without any other ophthalmic and systemic association, conservatively managed.

KEYWORDS : Christmas Tree Cataract, Needle Like Deposits, Opacification, Crystalline Lens

INTRODUCTION:

Christmas tree cataract, also called starry cataract due to needle like deposits in the deep cortex of the crystalline lens. It may be isolated or associated with other opacities of crystalline lens. It may be unilateral in presentation or asymmetrically bilateral [1]. This type of cataract result from the accelerated breakdown of membrane associated proteins. The peptides and amino acids accumulate in the lumen of the reticular meshwork, and cystine is concentrated beyond the level of crystallization, giving rise to glowing signals [2].

CASE:

56 years old male come with chief complaint of glare and photophobia for one year duration with no relevant medical history. On examination best corrected visual acuity was 6/6 right eye (+1.50 DS) and 6/9 (+1.75DS/-1.50 DC*55) in left eye. On anterior segment examination Right eye nuclear cortical cataract and left eye showed multicolored, highly reflective needle like opacities within the crystalline lens suggestive of Christmas tree cataract [Figure 1 and 2]. Patient was advised cataract surgery of left eye but he refused to undergo surgery, so spectacles prescribed. No further treatment was given as cataract was not visually disabling and no systemic complaints. Serum cholesterol, calcium, lipid profile and electromyogram were found to be within normal limits. Neurological consultation ruled out myotonic dystrophy. He was asked to follow up routinely for identifying any associated systemic complaints in future and progression of diminution of vision due to cataract.

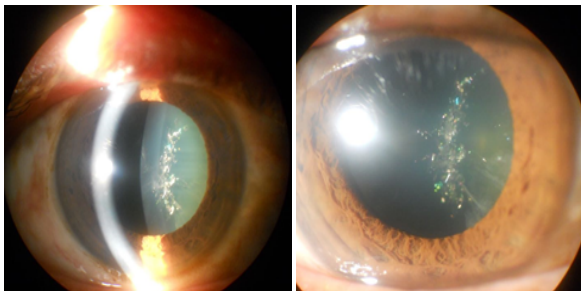


Figure 1: showing shining opacities in the deeper layer of cortex of crystalline lens

Figure 2: on further magnification showing green and blue colored needle like opacities

DISCUSSION:

Christmas tree cataract is a rare type of cataract, typically idiopathic or associated with myotonic dystrophy. This type of cataract is often not visually significant, but they can progress and impair vision.

Opacity in Christmas tree cataract are highly refringent multicolored, colors may vary according to the incident light, red and green colors are predominant, explaining its nomenclature, since the brightness and variety of colors refer to the ornaments that commonly decorate the Christmas tree.

It has an autosomal dominant inheritance, with common ophthalmologic finding of glitter like cataract and ptosis. Other unusual ophthalmologic findings are external ophthalmoplegia, light pigmentary retinopathy, reduced intraocular pressure and dissociation of combined pupillary reflexes [3]. In our case there is no systemic and any other ophthalmic association seen, cataract was also not visually disabling. So the patient did not undergo cataract surgery and was kept on routine follow up.

REFERENCES:

1. Brown NP, Bron AJ. Lens disorders: a clinical manual of cataract diagnosis: 3rd ed. Oxford: Butterworth-Heinemann; 1996.
2. Zahir F, Tahri H. A Christmas tree cataract. Pan African Med J. 2014; 18: 332.
3. Hayes BP, Fisher RF. Ultrastructural appearances of a lens with marked polychromatic lustre: evidence for diffraction as a cause. Br J Ophthalmol. 1984;68(12):850-8.