

# Isolated Co-Existence of Cerulean and Sutural Cataract

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**Abstract** Cerulean and sutural cataracts are developmental cataracts that are relatively rare. In this photo essay we will discuss the nature of cerulean and sutural cataract. Usually no surgery will be needed until adulthood as their visual acuity is usually well-preserved.

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A 39-year old lady presented to Our clinic with progressive blurring of vision of her left eye for 2 years. She had history of trauma over her right eye during childhood resulting in white cataract, and phacoemulsification surgery was performed. The best corrected visual acuity was 20/20 in the Right eye and 20/70 in the left eye, respectively. Slit-lamp examination of her right eye revealed pseudophakia, while that of her left eye showed dispersed bluish opacities throughout the lens cortex with opacified central suture (Figure 1).

Her intraocular pressure was 14 in both eyes, and the posterior segment was unremarkable. Left eye phacoemulsification surgery was planned in view of decrease in vision.

Cerulean cataract is a developmental cataract, where in its distinct blue-white opacities are distributed throughout the lens, forming large wedge shapes in the mid-periphery.<sup>1,2</sup>

On the other hand, sutural cataract is an opacity affecting the anterior or posterior suture, usually visible as a Y-shaped opacity.<sup>3</sup> Both cerulean and sutural cataracts are inherited as

an autosomal-dominant trait.<sup>1,3</sup>

Cerulean cataract is associated with mutation in beta-B2-crystallin, gamma-D-crystallin, V-MAF avian musculoaponeurotic fibrosarcoma oncogene homolog,<sup>1,4</sup> whereas both cerulean and sutural cataracts are associated with mutation in the major intrinsic protein genes of the lens fibre cell membranes.<sup>4</sup>

Visual acuity is usually well-preserved in patients with cerulean and sutural cataract, therefore cataract extraction is rarely required before adulthood.<sup>2</sup>

## References

1. Francis P, Berry V, Bhattacharya S and Moore A. The genetics of childhood cataract. Journal of medical genetics. 2000; 37: 481-8.
2. Ionides A, Francis P, Berry V, et al. Clinical and genetic heterogeneity in autosomal dominant cataract. British journal of ophthalmology. 1999; 83: 802-8.
3. Zhang Q, Guo X, Xiao X, Yi J, Jia X and Hejtmancik JF. Clinical description and genome wide linkage study of Y-sutural cataract and myopia in a Chinese family. Mol Vis. 2004; 10: 890-900.
4. Xiao X, Li W, Wang P, et al. Cerulean cataract mapped to 12q13 and associated with a novel initiation codon mutation in MIP. Molecular Vision. 2011; 17: 2049.

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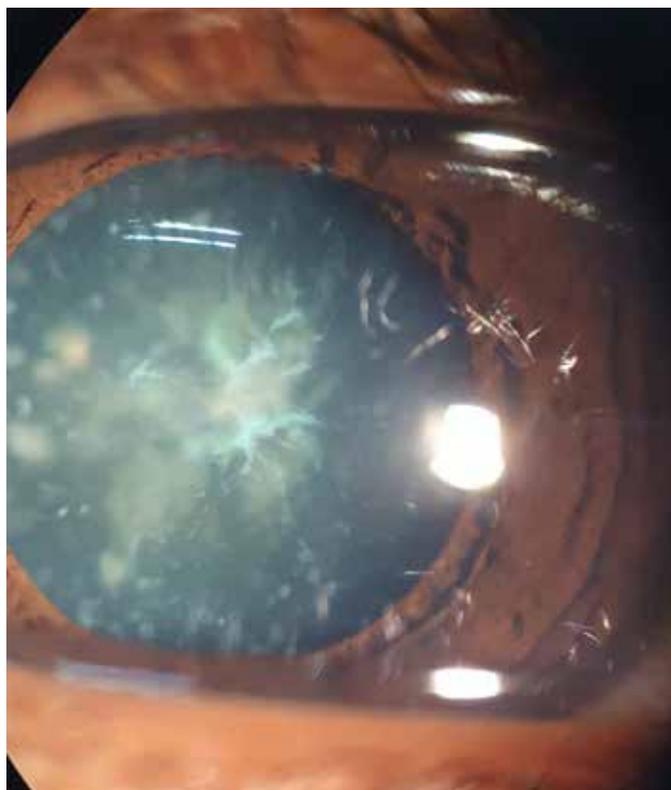
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**Figure 1:** Diffuse light examination on slit lamp showing dispersed bluish opacities throughout the lens cortex with opacified central suture on the left eye



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