

## A minute for anterior polar cataract

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**Abstract** Anterior polar cataracts (APC) are congenital lenticular opacities involving the anterior layers of lens, often appearing as white dots in the anterior lens capsule. They are non-progressive, however require regular follow-up to prevent long term visual complications, especially in childhood. This photoessay consists of a 27 year old male presenting with APC to a tertiary eye care institute in Southern Rajasthan.

Delhi J Ophthalmol 2021;31; 108-109; Doi <http://dx.doi.org/10.7869/djo.644>

**Keywords:** Anterior Polar Cataract, Congenital Cataract, Central Lenticular Opacity

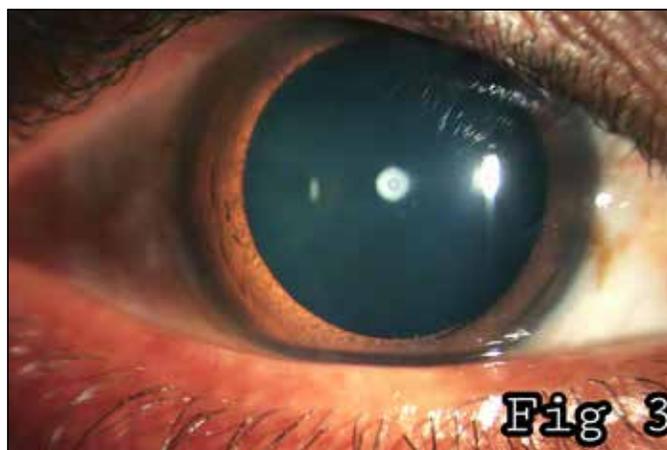
Anterior polar cataracts (APC) are congenital opacities involving the anterior capsule and subcapsular cortex. They consist of hyperplastic lens epithelium in a collagenous matrix.<sup>1</sup> They are usually less than 3 mm in diameter, appearing as small white dots in the centre of the anterior lens capsule. They are congenital, and can be bilateral or unilateral. Inheritance pattern is usually sporadic, however autosomal dominant pattern has also been found.<sup>2</sup> Eight different loci have been mapped for the AD type of cataract on chromosome 16 and 17 along with overexpression of gamma crystallin pseudogene.<sup>3,4</sup>

APC can be an isolated disorder but also have been found associated with other ocular abnormalities, including microphthalmos, persistent pupillary membrane, and anterior lenticonus. Even though they are non-progressive and not visually significant, anisometropia is a common occurrence. It is important to differentiate anterior polar cataract from anterior pyramidal cataract as the latter is usually larger, elevated, conical opacities which project into anterior chamber from the anterior capsule of lens, and are more likely to progress to visual significance.<sup>5</sup>

We present photograph of a 27 year old man presenting with complains of blurring of vision, who on slit lamp examination was found to have anterior polar cataract in the right eye



**Figure 2:** Right eye slit lamp photograph at 25x magnification showing two concentric rings around a central flat plaque.



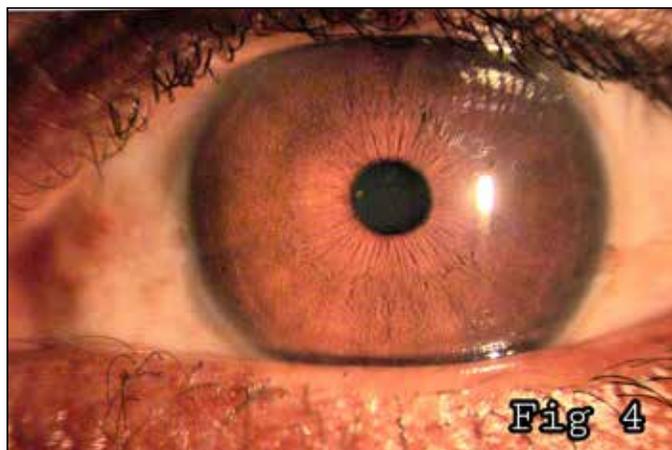
**Figure 3:** Right eye slit lamp photograph at 10x magnification showing dilated pupil with absolutely clear lens around the anterior polar cataract.



**Figure 1:** Right eye slit lamp photograph at 10x magnification showing central lenticular opacity on anterior capsule.

(Figure 1,2,3). The cataract was visually insignificant for him. His UCVA in was 6/9 and was prescribed glasses for simple myopic astigmatism. His left eye revealed visually insignificant focal pulverulent lenticular opacities in pupillary area.(Figure 4) No other ocular abnormalities were found in either of his eyes. There was no positive family history either.

Even though anterior polar cataracts usually do not require treatment one study found that over one-third of the patients



**Figure 4:** Left eye slit lamp photograph at 10x magnification showing focal pulverulent lenticular opacities in pupillary area.

have strabismus, refractive anisometropia, or some form of amblyopia.<sup>6</sup> Hence, rigorous follow-up of such patients is necessary to avoid vision threatening complications.

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**Cite This Article as:** Prateek Jain, Anshuman Pattnaik. A minute for anterior polar cataract. *Delhi Journal Of Ophthalmology*. 2020; Vol 31, No (3): 108 - 109

**Acknowledgments:** Nil

**Conflict of interest:** None declared

**Source of Funding:** None

**Date of Submission:** 25 November 2020

**Date of Acceptance:** 21 December 2020

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