Quest Journals Journal of Research in Pharmaceutical Science Volume 11 ~ Issue 3 (2025) pp: 40-41 ISSN(Online) : 2347-2995 www.questjournals.org



**Research Paper** 

# **Posterior lenticonus**

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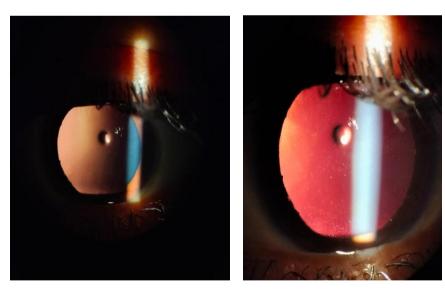
## *Received 09 May., 2025; Revised 15 May., 2025; Accepted 17 May., 2025* © *The author(s) 2025. Published with open access at www.questjournas.org*

A 21 year old Asian lady came with the complain of both eyes itching and swelling since 15 days. Other history was not marked i.e. systemic and personal history. There was neither parental history of cataract nor glaucoma. In retinoscopy we have observed a pin point shadow in left eye however right eye reflex was clear. The V.A of right eye 6/6 for distance and left eye 6/18, as well no further improvement with pinhole. Near visual acuity were N6 and N8 for right and left eye respectively. Slit lamp examination show pasty secretion of both eyelids and other were normal. IOP was normal 12 and 14 of right and left eye respectively. Fundus examination was WNL.

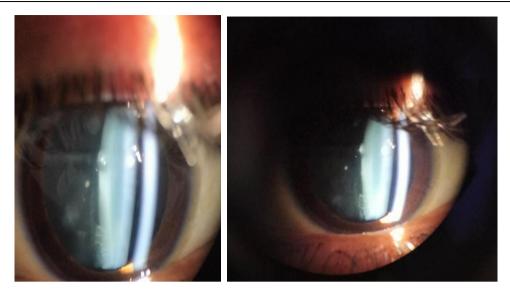
A- Scan show right eye corneal curvature 44.00 D and 44.50 D for left eye. Axial length 22.72mm for right eye and 22.05mm in left eye. Whereas the thickness of lens was 3.62 mm and 3.68 mm for right and left eye. OU diagnosed as anterior blepharitis and left eye diagnosed posterior lenticonus.

Plan of management advised the medication for blepharitis and nil surgical intervention for left eye however left eye quite likely amblyopic.

On dilated examination of retro illumination left eye lens show oil droplet sign and optic section illustrate lens protrusion of central area of posterior capsule as shown in figure.



oil droplet sign



#### Lens protrusion

The congenital deficiencies referred to as posterior lenticonus is characterized by a well-circumscribed, localized protrusion of the posterior lens capsule and cortex that ranges in morphology from round to oval. <sup>[1]</sup> According to the research currently in publication, unilateral posterior lenticonus is more common than bilateral occurrences, and the majority of instances are sporadic. <sup>[2-4]</sup> the wider accepted theory states that the posterior lenticonus develops by herniation of cortical lens fibers and PC into the vitreous at an area of PC weakness during fetal development <sup>[5]</sup>. The presumed cause for the development of cataracts in the posterior lenticonus is mechanical due to posterior bowing of capsule and progressive degeneration of lens fibers <sup>[6]</sup>

Autosomal dominant inheritance has been discovered to result in unilateral posterior lenticonus.

<sup>[7, 8]</sup> and infrequently by autosomal recessive trait <sup>[9]</sup> It has demonstrated a correlation with several kinds of ocular errors, including micro cornea <sup>[10]</sup>, Duane syndrome <sup>[11]</sup>, and anterior lenticonus <sup>[12]</sup>.

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