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UNILATERAL POSTERIOR SUBCAPSULAR CATARACT WITH POSTERIOR LENTICONUS IN A PEDIATRIC PATIENT: A RARE CASE REPORT

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ABSTRACT Posterior lenticonus is a rare developmental anomaly of the crystalline lens, typically presenting in childhood and often associated with progressive visual deterioration. We present a rare case of an 8-year-old female child with unilateral posterior subcapsular cataract (PSC) and posterior lenticonus associated with mild exotropia. The diagnosis was confirmed using ultrasound biomicroscopy (UBM). The patient underwent successful cataract extraction with posterior chamber intraocular lens (PCIOL) implantation, resulting in significant visual improvement.

KEYWORDS : Posterior lenticonus, pediatric cataract, posterior subcapsular cataract, exotropia, UBM, cataract surgery, PCIOL

INTRODUCTION

Posterior lenticonus is a rare ocular anomaly characterized by a localized, cone-shaped protrusion of the posterior lens capsule. It is usually diagnosed in children and may lead to progressive visual loss due to associated cataract formation. The condition is often unilateral and may go undiagnosed until significant visual impairment prompts further evaluation. Imaging modalities like UBM play a vital role in preoperative diagnosis. Early surgical intervention is essential for visual rehabilitation and to prevent amblyopia.

CASE PRESENTATION:

An 8-year-old female presented with complaints of decreased vision in the left eye for the past 6 months. There was no history of trauma or systemic illness. On examination:

Best Corrected Visual Acuity (BCVA):
Right Eye (OD): 6/6
Left Eye (OS): 6/18

Ocular Alignment: Mild exotropia in the left eye.

Slit-lamp Examination: Revealed posterior subcapsular cataract in the left eye.

Fundus Examination: Within normal limits in both eyes.

Due to the presence of posterior opacities and clinical suspicion of lenticonus, ultrasound biomicroscopy (UBM) was performed, which confirmed posterior lenticonus in the left eye. No other ocular or systemic anomalies were found.

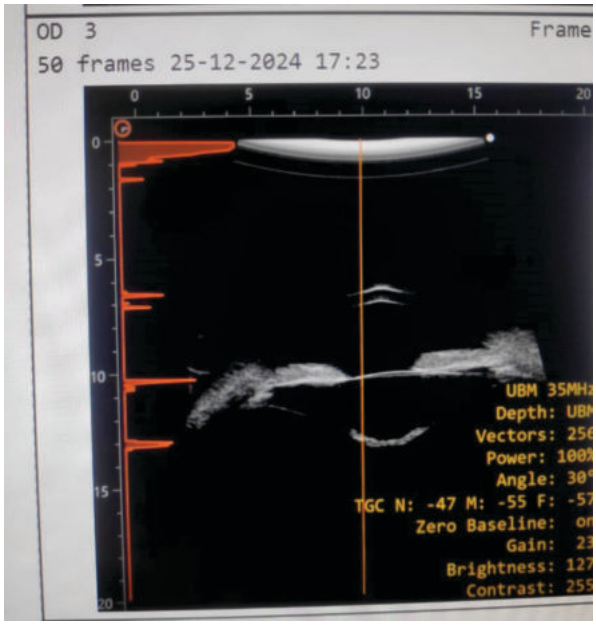

Image : UBM confirmed posterior lenticonus

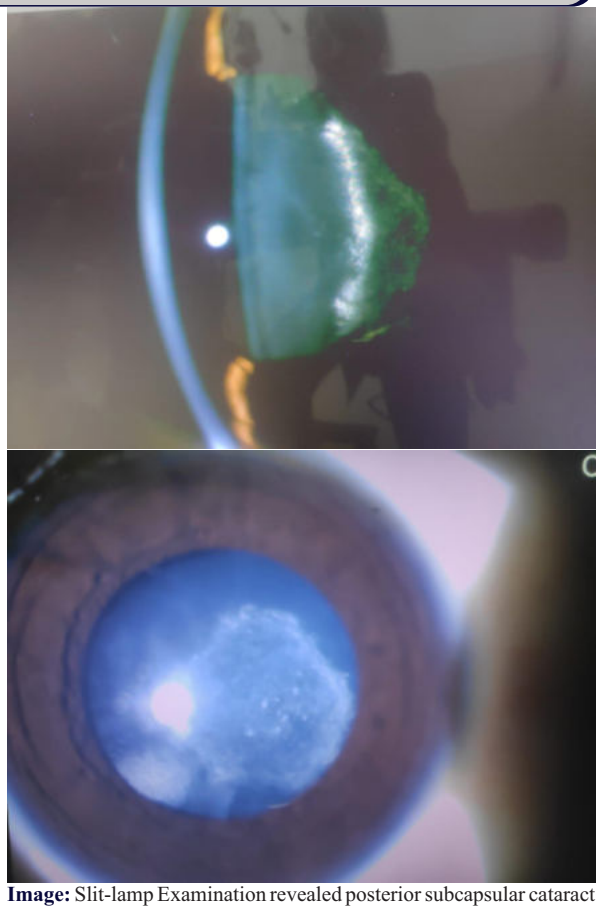

Image: Slit-lamp Examination revealed posterior subcapsular cataract in the left eye.

MANAGEMENT AND OUTCOME:

The patient underwent left eye cataract extraction with posterior chamber intraocular lens (PCIOL) implantation under general anesthesia. Intraoperatively, a posterior capsular bulge consistent with lenticonus was confirmed. The surgery was uneventful.

Postoperative Follow-up At 6 Weeks Showed:

- BCVA in the left eye improved to 6/9.
- Alignment improved, though mild exotropia persisted.
- No signs of posterior capsular opacification or other complications

DISCUSSION:

Posterior lenticonus is a rare anomaly, more commonly unilateral, and often associated with posterior subcapsular cataracts. The pathogenesis is unclear, though developmental weakness in the posterior capsule is suspected. This case highlights the importance of early diagnosis and surgical intervention to prevent irreversible amblyopia. The use of UBM was crucial in confirming the diagnosis

preoperatively and helped guide surgical planning. Favorable visual outcomes, such as in this case, support timely surgical management.

CONCLUSION:

This case emphasizes the significance of considering posterior lenticonus in pediatric patients presenting with unilateral cataract and subnormal vision. UBM serves as a valuable diagnostic tool in confirming lenticonus. Early surgical intervention with PCIOL implantation can yield excellent visual rehabilitation, as demonstrated by the improvement from 6/18 to 6/9 in the affected eye.

ACKNOWLEDGEMENTS: None.

CONSENT:

Informed consent was obtained from the patient's legal guardian for publication of this case report and accompanying images.

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