

Slit-Lamp Documentation of Central Corneal Guttae: A Reminder of the Value of Meticulous Preoperative Assessment

Dr. Kiratmeet Singh¹, Dr. Manmeet Singh²

¹Department of Ophthalmology, AIIMS Mangalagiri, India
Corresponding Author Email: [drkiratmeetsingh\[at\]gmail.com](mailto:drkiratmeetsingh[at]gmail.com)

²Consultant, Cornea, Cataract & Refractive Services, Sankara Eye Hospital, Ludhiana, India

Abstract: *This short communication is about a 62-year-old male who was planned for cataract surgery and had undergone a meticulous pre-operative clinical examination which revealed a clinical finding of corneal guttae, thus showcasing the importance of meticulous clinical work up using slit lamp bio-microscopy. Our eyes see what our mind knows, this short photoessay gives an important lesson to the beginners to learn slit lamp biomicroscopy techniques in a detailed fashion, thereby proving useful in deciding the surgical plan in the best interest of a patient's eye health.*

Keywords: Corneal guttae, Specular reflection, Endothelial dysfunction, pre-operative assessment

Photoessay

A 62-year-old patient planned for cataract surgery underwent detailed slit-lamp evaluation. On specular reflection adjacent to Purkinje Image I at 40× magnification, discrete central corneal guttae were observed. Subsequent specular microscopy(1) demonstrated endothelial cell count of 531 cells/mm², confirming significant endothelial compromise. Thus in this patient, cataract surgery was planned with low phaco energy and augmented use of dispersive OVDs to protect the endothelium.(2) Differential diagnoses for

unilateral guttae include early Fuchs endothelial dystrophy, post-inflammatory endothelial changes, prior trauma, degenerative endotheliopathy.

Conclusion

This clinical image reinforces that a careful and meticulous slit-lamp evaluation remains a critical component of pre-operative cataract assessment, capable of revealing subtle yet surgically relevant findings.

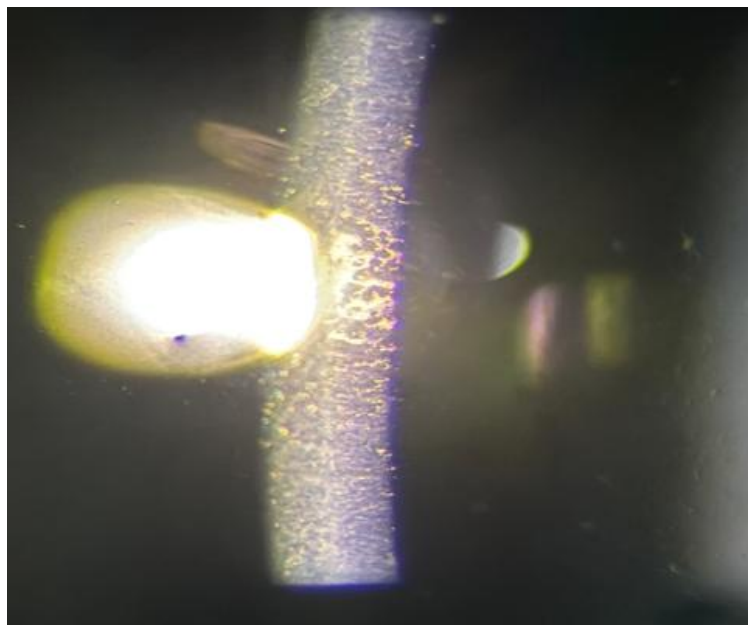


Figure 1: Slit-lamp photograph using specular reflection adjacent to Purkinje Image I at 40× magnification showing distinct central corneal guttae in the right eye

Financial Disclosure: Nil

unwavering support, encouragement and sacrifices throughout the academic and professional journey.

Acknowledgement: The author gratefully acknowledges his parents Dr T. P. Singh, Mrs. Maninder Kaur for their

Volume 14 Issue 12, December 2025

Fully Refereed | Open Access | Double Blind Peer Reviewed Journal

www.ijsr.net

References

- [1] Martin R. Cornea and anterior eye assessment with slit lamp biomicroscopy, specular microscopy, confocal microscopy, and ultrasound biomicroscopy. *Indian J Ophthalmol.* 2018 Feb;66(2):195–201.
- [2] Hsiao CW, Cheng H, Ghafouri R, Ferko NC, Ayres BD. Corneal Outcomes Following Cataract Surgery Using Ophthalmic Viscosurgical Devices Composed of Chondroitin Sulfate-Hyaluronic Acid: A Systematic Review and Meta-Analysis. *Clin Ophthalmol.* 2023; 17: 2083–96.