

# Complete Fleischer's Ring

Kshama Popat

Cornea and Anterior Segment Consultant, Thakorbbhai V. Patel Eye Institute (TVPEI), Shri M. L. Vaduwala Eye Hospital, Vadodara, India.

## Abstract

Fleischer's Ring is a hemosiderin or iron ring seen at the base of cone in moderate to advanced cases of keratoconus. It occurs due to deposition of iron from tear film. It is best visualized on cobalt blue filter which is highlighted here along with the slit lamp biomicroscopy image.

Delhi J Ophthalmol 2020;31;107; Doi <http://dx.doi.org/10.7869/djo.608>

**Keywords:** Keratoconus, Fleischer's ring.

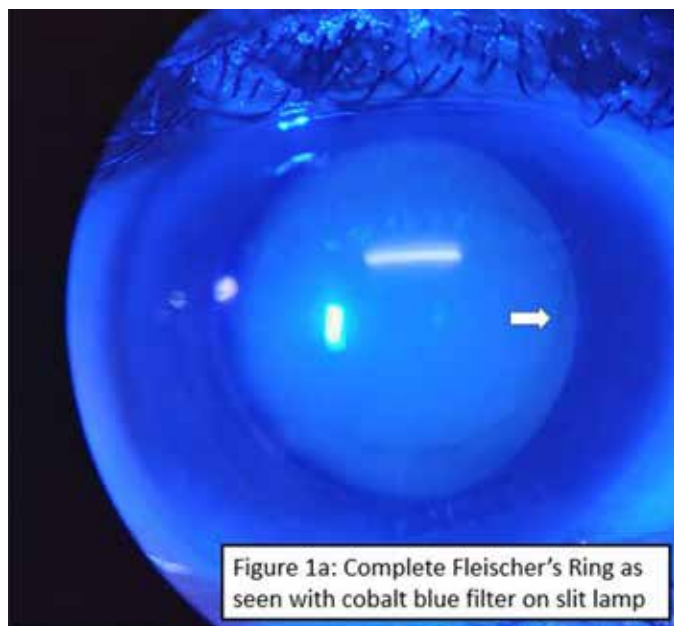


Figure 1a: Complete Fleischer's Ring as seen with cobalt blue filter on slit lamp

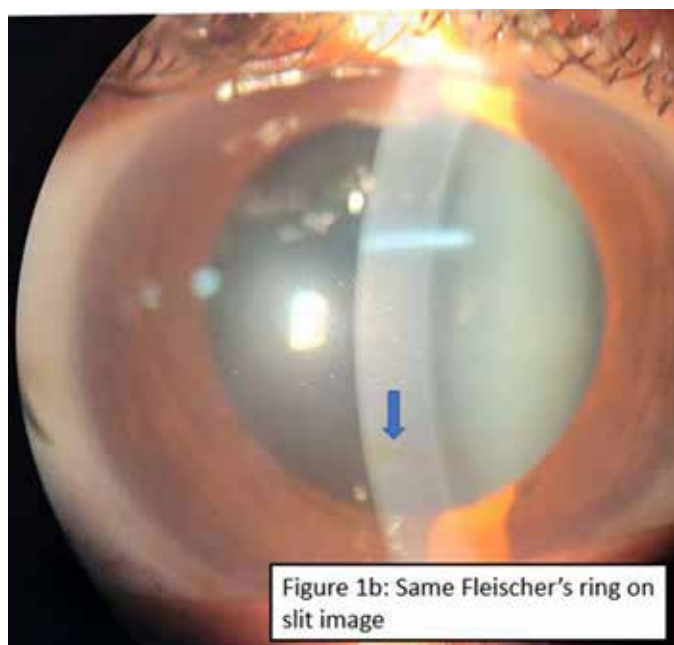


Figure 1b: Same Fleischer's ring on slit image

**Figures 1:** Complete Fleischer's Ring as seen with cobalt blue filter on slit lamp in Fig 1a and same on slit lamp image in Figure 1b

## Fleischer's ring

Fleischer's Ring is a hemosiderin or iron ring seen at the base of cone in moderate to advanced cases of keratoconus.<sup>1</sup> It occurs due to deposition of iron from tear film. Iron gets deposited in the form of hemosiderin in the basal epithelial cells at the level of base of the cone. Duration at which, Fleischer's ring appears is variable – it can be seen in subclinical or forme fruste cases also, but in general, it occurs in keratoconus at mild-moderate stage. It is best visualized on cobalt blue filter as seen in (Figure 1a). Slit image of same is seen in (Figure 1b). Surgical significance being it should be entirely included in trephining while doing keratoplasty for keratoconus to prevent recurrence in the graft.<sup>2</sup>

## References

1. Romero-Jimenez M, Santodomingo-Rubido J, Wolffsohn JS. Keratoconus: a review. *Cont Lens Anterior Eye*. 2010; 33(4): 157-66.
2. De Toledo JA, de la Paz MF, Barraquer RI, Barraquer J. Long-term progression of astigmatism after penetrating keratoplasty for keratoconus: evidence of late recurrence. *Cornea*. 2003;22(4):317-23

**Cite This Article as:** Kshama Popat. Complete Fleischer's Ring. *Delhi J Ophthalmology*. 2020;31 (2): 101

**Acknowledgments:** Nil

**Conflict of interest:** None declared

**Source of Funding:** None

**Date of Submission:** 08 April 2020

**Date of Acceptance:** 15th June 2020

## Address for correspondence

**Kshama Popat** FMRF(Cornea),  
MS(Ophthalmology)  
Cornea and Anterior Segment Consultant,  
Thakorbbhai V. Patel Eye Institute (TVPEI),  
Shri M. L. Vaduwala Eye Hospital,  
Vadodara, India.  
Email : forgive\_02@yahoo.com



Quick Response Code