

Chapter 1

Ocular Anatomy

Sengul OZDEK MD, FEBO, FASRS¹
Mehmet Cuneyt OZMEN MD, FICO²

In this chapter, ocular anatomy pertinent to fungal infections will be discussed.

The eye can be divided into 3 segments to ease learning:

1. Eyelids and lacrimal system,
2. Orbit and adjacent soft tissues,
3. Eyeball (Bulbus oculi, globe): anterior and posterior segments (Figure 1.1).

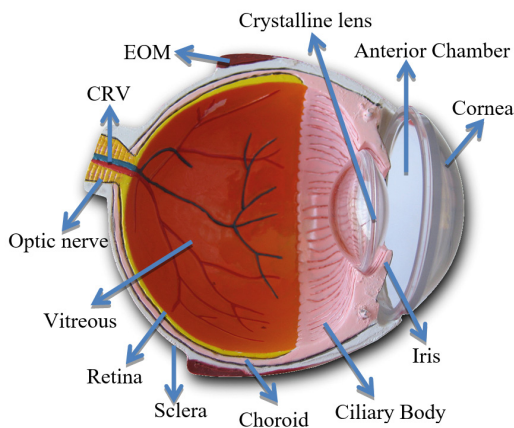


FIGURE 1.1. Anatomy of the eyeball. (EOM: Extraocular muscle, CRV: Central retinal vessels)

¹ Prof. Dr., Ophthalmology Department, Retina Diseases and Vitreoretinal Surgery Unit, Gazi University Faculty of Medicine, Ankara, Turkey

² Assoc. Prof. Dr., Ophthalmology Department, Cornea, Cataract and Refractive Surgery Unit, Gazi University Faculty of Medicine, Ankara, Turkey

by nonpigmented epithelium of the ciliary body, and vitreous space which is full of gel like vitreous.¹

Defense mechanisms of the eye start from eyelids, eyelashes, tear film, cornea, and conjunctiva with blink reflex and by providing mechanical barrier. In addition to mechanical washing of the ocular surface, tear film contains several immunologically active substances necessary for ocular defense. The mucin contained in tears prevents adhesion of *Candida* species to contact lenses, likely by entrapping the microorganisms.²

In section 3, fungal infections of the eye will be discussed according to the anatomical part of the eye involved in the disease; endophthalmitis, keratitis, and orbital fungal infections.

REFERENCES

1. Snell RS, and Lemp MA. Clinical anatomy of the eye. 2nd Edition. Blackwell Scientific Publications, Boston, Mass, 1998.
2. Pflugfelder SC and Stern ME. Biological functions of tear film. *Experimental Eye Research* 2020;197:108115.
3. Butrus SI, Klotz SA. Blocking *Candida* adherence to contact lenses. *Curr Eye Res* 1986; 5: 745-750.