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## Epidemiology of dry eye- Fungal Keratitis

**Rosane Silvestre de Castro**  
University of Campinas – UNICAMP, Brazil

The term ulcer comes from the Latin ULCUS defined as "injury" with superficial loss of tissue, usually associated with inflammation. Corneal ulcers rarely occur in normal and / or healthy eyes. The quest for a causal factor must be considered. In order for a pathogen to cause damage to the cornea, 4 concomitant factors are necessary: access, adhesion, penetration and proliferation of the microorganism on the ocular surface and corneal epithelium. The eye has different defense mechanisms: anatomical, immunological, chemical and natural, responsible for maintaining the balance of a system that includes eye and microbiota. The clinical history of exposure to predisposing factors such as contact lens wearers, foreign body and corneal trauma, use of chronically topical medications, ocular surface alteration associated with or not tear film abnormality, previous eye surgery, including refractive surgery or exposure to potentially contaminated water and abusive use of contact lenses are associated with increased risk of infection.

### Fungal keratitis

The first report of fungal keratitis dates back to 1879 when Leber described a case of aspergillus sp keratitis, evolving with a hypopyon. Until 1951 only 63 cases of fungal keratitis had been described, but with increasing use of corticosteroids and antibiotics, an increasing number of cases were observed. The main causative agents are filamentous fungi (aspergillus sp and fusarium sp) and yeast (candida sp) The risk factors for filaments are vegetal trauma and for yeast infections are prior eye surgery, chronic keratitis, exposure keratitis, immunodepressed. Clinical features - lesion of slow progression, cottony appearance or hyphal infiltrate, satellite lesions, hypopio, endothelial plaque, infiltrate that invades the anterior chamber and ring infiltrate. Treatment consists of two classes of drugs: polenos and imidazole drugs which can be used topically or systemically. Adjuvant treatments in non-responsive cases may be used as corneal transplantation, tissue adhesives, conjunctival flaps. Treating a fungal keratitis is a major challenge, given the difficulty in obtaining drugs for topical treatment, its penetration in the tissues, the low adherence to the treatment by the patient, prolonged treatment time, recurrence of the disease.

### Biography

She holds a degree in Medicine from the Faculty of Medical Sciences of State University of Campinas - BR (1985), master's degree in Medicine by Faculty of Medical Sciences of the State University of Campinas -BR(1997) and PhD in Medicine from the Faculty of Medical Sciences of the State University of Campinas -BR (2001). She is currently a State University of Campinas, a founding member and the Brazilian Cornea and Eye Bank. Medical assistant of the discipline of ophthalmology of the Clinical Hospital of the State University of Campinas (CH Unicamp) Chief sector of cornea and external diseases of the ophthalmology discipline of CH Unicamp Physician responsible for corneal transplant team of the CH Unicamp.

rosane@hc.unicamp.br