

Brief on Bacterial Keratitis and Fungal Keratitis

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Abstract

This paper describes brief about bacterial and fungal keratitis.

Keywords: Bacterial Keratitis; Fungal Keratitis; Inflammation; Cornea

Introduction

Bacterial keratitis

Inflammation of cornea is called keratitis. When it is associated with bacterial organism then it is called bacterial keratitis. Mostly, in keratitis, epithelium layer is disrupted (damaged). Organisms which damage epithelium layer of cornea and forms bacterial keratitis are:

- *Staphylococcus aureus*
- *Streptococcus aureus*
- *Pneumococcus*
- *Neisseria gonorrhoea*
- *Neisseria meningitidis*
- *Corynebacterium diphtheria*.

Most of the time, bacterial keratitis is associated with

- Iritis
- Glaucoma
- Hypopyon

- Anti-glaucoma drugs
- Cycloplegics are advised always
- Steroids are contraindicated.

Predisposing factors:

- Trauma
- Herpetic keratitis
- Corneal erosion
- Keratomalacia
- Neurotropic keratopathy
- Dry eye.

Clinical features:

- Acute pain: Due to 5th cranial nerve involvement.
- Photophobia: Due to edema of the cornea.
- Deterioration of visual acuity: Due to central part of the cornea is involved.
- Presence of hypopyon.

- Ciliary is present: It is a redness away from the limbal area 1 - 2 mm.
- Ectatic cicatrix: Here cornea is bulged but IOP is in normal condition.
- Descemetocoele: Here Descemet's membrane is herniated by the corneal ulcer.

If bacterial keratitis is perforated then it can create:

- Anterior synechiae
- Iris prolapse
- Adherent leucoma
- Anterior staphyloma
- Phthisis bulbi
- Subluxation or dislocation of lens
- Anterior capsular cataract
- Corneal fistula
- Expulsive hemorrhage
- Pan ophthalmitis.

Treatment methodology

To diagnose

- Blood agar is used.

Bacterial keratitis is treated according to the cause

- Ab therapy
- To decrease inflammation
- Cycloplegic drugs
- Iris must not be attached to the cornea during keratitis
- NSAIDS
- To reduce pain
- Hot fomentation
- Anti-glaucoma drugs
- Bacterial keratitis always associated with increased IOP
- If corneal opacity persists, penetrating keratoplasty is advised.

Fungal keratitis

It is also known as mycotic keratitis or keratomycosis. When keratitis mainly occurs due to fungal organism, then it is considered as fungal keratitis.

Clinical features:

- Satellite lesion
- Vegetable burn
- Dryness
- Deterioration of visual acuity.

Two main organisms are responsible for fungal keratitis:

- *Aspergillus fumigatus*
- *Candida albicans*.

Diagnosis:

- 10% KOH
- Sabouraud media is used.

Treatment methodology:

- Antifungal therapy
- Cycloplegic drugs
- If needed, scrapping should be done [1-3].

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