



## Ocular Manifestations in Leprosy Patients

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### ABSTRACT

*Leprosy is a chronic infection caused by the acid-fast bacillus Mycobacterium leprae. In addition to the skin, upper respiratory tract and peripheral nervous system leprosy patients often develop ocular manifestations. It is very important to detect Ocular leprosy because around 10% peoples of ocular leprosy can end up with blindness. Prevalence of blindness is around 4.5% in India. Though early stage is asymptomatic but early detection and appropriate treatment is very much essential. Hereby, representing an article with ocular manifestations in Leprosy patient.*

**KEYWORDS :** Mycobacterium leprae , Keratitis , Lagophthalmos.

### INTRODUCTION –

Leprosy is also known as Hansen's disease. Leprosy is caused by a slow-growing type of bacteria called Mycobacterium leprae. Leprosy is common in many countries worldwide, and in tropical climates. It is believed that leprosy occur through a cough or contact with fluid from the nose of an infected person. Leprosy occurs more commonly among those living in poverty and is believed to be transmitted by respiratory droplets. It is a global disease burden.

Leprosy primarily affects the skin and peripheral nervous system but it can affect the eye also. Leprosy has 2 common forms - tuberculoid and lepromatous leprosy. Both forms produce sores on the skin but the lepromatous form is more severe.

### OCULAR FEATURES IN LEPROSY PATIENT –

#### Eyebrows & Eyelashes –

- Superciliary madarosis and Ciliary madarosis (Loss of eyebrows).
- Trichiasis – It is defined as misdirection of eyelashes toward the globe. It can rub against the cornea and conjunctiva and can cause corneal abrasion and Corneal ulcer.

#### Eyelids –

- Entropion – Inward turning of eyelid margin.
- Ectropion – Outward turning of eyelid margin.
- Tylosis – Leprosy can cause thickening of lid margin.
- Atrophy of the tarsal plate.

#### Conjunctiva –

- Due to Type 2 repara reaction lepromatous nodule may occur on conjunctiva.

#### Cornea –

- Superficial punctate keratitis – Due to bacillary infiltration it can cause superficial punctate keratitis. Patient will often complain of ocular pain, irritation and watering. The characteristic feature is Miliary leproma formation which appears as superficial grayish white spots on cornea due to aggregation of bacilli which can appreciate on
- Slit-lamp examination. Though cornea is avascular but superficial corneal vascularisation can present in this condition.

#### Interstitial keratitis –

- It is corneal scarring due to chronic inflammation of the corneal stroma. The corneal scarring is the end result of the initial invasion of blood vessels into the corneal stroma as part of the inflammatory response. Cornea become oedematous due to excessive stromal infiltration. Deep vascularisation is the characteristic feature of interstitial keratitis.

#### INTRAOCULAR PRASSURE –

- Intraocular pressure may be raised due to use of Steroid in the treatment of Leprosy.

#### Lagophthalmos –

- *Lagophthalmos* is defined as the inability to close the eyelids

completely. Lagophthalmos occurs in leprosy patient due to paralysis of facial nerve i.e. seven cranial nerve.

Due to lagophthalmos patient can develop exposure keratitis. Lubricating eye drops, taping of eyelid and Tarsorrhaphy are the treatment options available to prevent the formation of exposure keratitis.

#### CORNEAL ULCER –

- Corneal ulcer occurs due to lagophthalmos due to continuous exposure of cornea.

#### SCLERA –

- Episcleritis – Episcleritis is an inflammatory condition affecting the episcleral tissue that lies between the conjunctiva and the sclera.
- Scleritis – *Scleritis* is a severe, destructive, vision-threatening inflammation involving the deep episclera and sclera.

#### Chronic Iridocyclitis –

Uveitis is also one of the significant manifestation which can occur due to Leprosy.

#### CATARACT –

- Cataract is one of the leading cause of blindness in leprosy patients.
- Once cataract patients are identified, cataract surgical treatment must be given to the patient.

#### RETINA –

- Retinal pearls – small, Circular and waxy in appearance.
- It is one of the classical feature in Leprosy patient.

#### References –

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