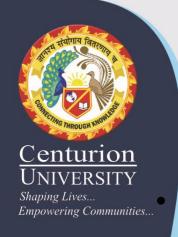


OCULAR DISEASE

CHRONIC DACRYOCYSTITIS



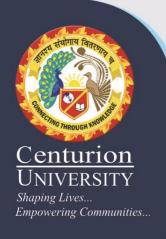
Introduction

Chronic dacryocystitis is more common than the acute dacryocystitis.

Etiology

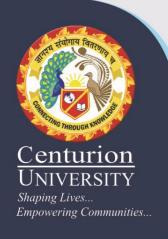
The etiology of chronic dacryocystitis is **multifactorial**. The well-established fact is a vicious cycle of *stasis* and mild infection of long duration. The etiological factors can be grouped as under:

- ✓ A. Predisposing factors
- ✓ B. Factors responsible for stasis of tears in lacrimal sac
- ✓ C. Source of infection
- ✓ D. Causative organisms

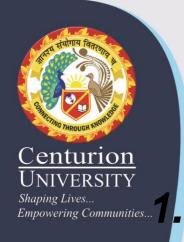


A. Predisposing factors

- 1. Age. It is more common between 40 and 60 years of age.
- 2. Sex. The disease is predominantly seen in females (80%) probably due to comparatively narrow lumen of the bony canal.
- 3. Race. It is rarer among Negroes than in Whites; as in the former NLD is shorter, wider and less sinuous.

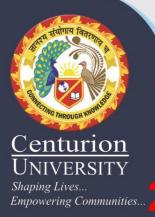


- 4. Heredity. It plays an indirect role. It affects the facial configuration and so also the length and width of the bony canal.
- 5. Socio-economic status. It is more common in low socio-economic group.
- 6. Poor personal hygiene. It is also an important predisposing factor.

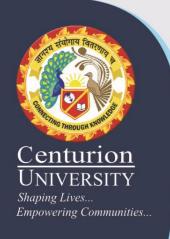


B. Factors responsible for stasis of tears in lacrimal sac

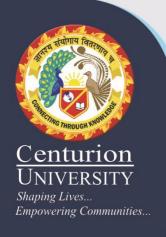
- Anatomical factors, which retard drainage of tears include:
- Comparatively narrow bony canal,
- Partial canalization of membranous NLD
- ✓ Excessive membranous folds in NLD.



- Foreign bodies in the sac may block opening of NLD.
 - Excessive lacrimation, primary or reflex, causes stagnation of tears in the sac.
 - 4. Mild grade inflammation of lacrimal sac due to associated recurrent conjunctivitis may block the NLD by epithelial debris and mucus plugs.

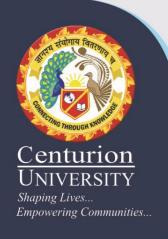


- 5. Obstruction of lower end of the NLD by nasal diseases such as
- ✓ Polyps,
- ✓ Hypertrophied inferior concha,
- ✓ Marked degree of deviated nasal septum,
- ✓ Tumours and atrophic rhinitis
- Causing stenosis may also cause stagnation of tears in the lacrimal sac



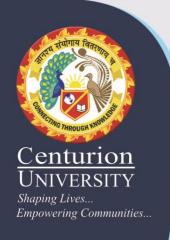
C. Source of infection

- Lacrimal sac may get infected from the
- ✓ Conjunctiva,
- √ Nasal cavity (retrograde spread)
- ✓ Paranasal sinuses



D. Causative organisms

- Staphylococci, Pneumococci, Streptococci and Pseudomonas pyocyanea.
- Rarely chronic granulomatous infections like tuberculosis, syphilis, leprosy and occasionally rhinosporiodosis may also cause dacryocystitis.



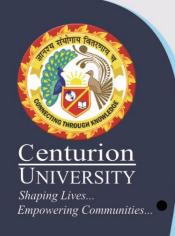
Clinical picture

- 1. Stage of chronic catarrhal dacryocystitis.
- It is characterised by mild inflammation of the lacrimal sac associated with blockage of NLD.
- In this stage the only symptom is watering eye and sometimes mild redness in the inner canthus.
- On syringing the lacrimal sac, either clear fluid or few fibrinous mucoid flakes regurgitate.

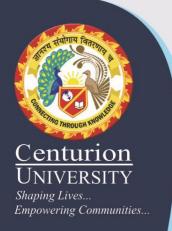


2. Stage of lacrimal mucocoele.

- It follows chronic stagnation causing distension of lacrimal sac. It is characterised by constant epiphora associated with a swelling just below the inner canthus.
- Milky or gelatinous mucoid fluid regurgitates from the lower punctum on pressing the swelling.

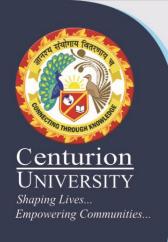


- Sometimes due to continued chronic infection, opening of both the canaliculi into the sac are blocked and a large fluctuant swelling is seen at the inner canthus with a negative regurgitation test.
- This is called encysted mucocele.



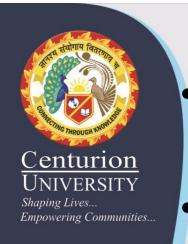
3. Stage of chronic suppurative dacryocystitis.

- Due to pyogenic infections, the mucoid discharge becomes purulent, converting the mucocele into 'pyocoele'.
- The condition is characterised by epiphora, associated recurrent conjunctivitis and swelling at the inner canthus with mild erythema of the overlying skin.
- On regurgitation a frank purulent discharge flows from the lower punctum.
- If openings of canaliculi are blocked at this stage the so called encysted pyocoele results.



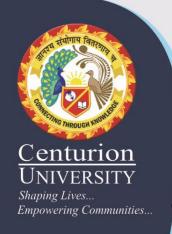
4. Stage of chronic fibrotic sac

- Low grade repeated infections for a prolonged period ultimately result in a small fibrotic sac due to thickening of mucosa, which is often associated with persistent epiphora and discharge.
- Dacryocystography at this stage reveals a very small sac with irregular folds in the mucosa.



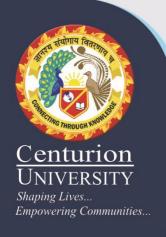
Complications

- Chronic intractable conjunctivitis, acute on chronic dacryocystitis.
- Ectropion of lower lid, eczema of lower lid skin due to prolonged watering.
- Simple corneal abrasions may become infected leading to hypopyon ulcer.
- If an intraocular surgery is performed in the presence of dacryocystitis, there is high risk of developing endophthalmitis. Because of this, syringing of lacrimal sac is always done before attempting any intraocular surgery.



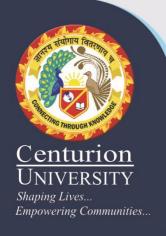
Treatment

- 1. Conservative treatment by repeated lacrimal syringing. It may be useful in recent cases only.
- Longstanding cases blockage of NLD which usually does not open up with repeated lacrimal syringing or even probing.



Continue...

- 2. Dacryocystorhinostomy (DCR). It should be the operation of choice as it re-establishes the lacrimal drainage.
- 3. Dacryocystectomy (DCT). It should be performed only when DCR is contraindicated.



Indications of DCT

include:

- (i) Too young (less than 4 years) or too old (more than 60 years) patient.
- (ii) Markedly shrunken and fibrosed sac.
- (iii) Tuberculosis, syphilis, leprosy or mycotic infections of sac.
- (iv) Tumours of sac.