

DISEASES OF THE LIDS

Dr. N. Abidi

Function of Lids

- Normal function – protection of the eye
 - blink, lid closure
 - spread of tears over surface of eye
 - contribution to tear film (sebaceous glands)

Diseases of the Eyelids

- Malpositions
- Inflammatory diseases
- Loss of eyelid closure (facial palsy)
- Tumours
- Trauma

Diseases of the Eyelids

➤ Eyelid Malpositions

- Ptosis
- Retraction
- Entropion (lid margin turned inwards)
- Ectropion (lid margin turned outwards)

Entropion

- Entropion is **in-rolling of eye lid margin**
- Normal position of sharp posterior border of inter-marginal strip is essential for integrity of the tear film and for maintenance of healthy ocular surface
- Entropion is caused by disparity of length and tone of anterior skin muscle layer and posterior tarso-conjunctival layer of the eyelid

Symptoms of Entropion

- Foreign body sensation
- Watering
- Redness
- Pain
- Photophobia

These symptoms are due to rubbing of ocular surface by misdirected eyelashes

Classification

1. Involutional
2. Cicatricial
3. Spastic
4. Congenital

Involutional Entropion



- This condition is due to old age, due to instability of lid structures
- There occurs:
 - a. Weakness of the posterior retractor of the lid
 - b. Laxity of medial and lateral canthal ligaments
 - c. Atrophy of orbital pad of fat leading to enophthalmos

Surgical treatment

- Catgut suture application through
- **Modified Bick operation:** Horizontal shortening of lower lid with fixation to lateral canthal ligament and periosteum
- Tucking of inferior lid retractors

Cicatricial Entropion

- Caused by contraction of scar tissue of the palpebral conjunctiva
- In this case **there is relative shortening** of inner layer i.e. tarso - conjunctiva
- Caused by scarring of palpebral conjunctiva by **trachoma, trauma, chemical injuries (burns), pemphigus and Stevens-Johnson syndrome**



Treatment

➤ Principles of surgery

1. Tarsal rotation (forwards)
2. Lengthening of posterior lid lamina so that eyelashes turn forwards

➤ Surgery

- a. Wedge resection (Tarsal paring)
- b. Tarsal fracture

Spastic Entropion

- This condition is due to **spasm of orbicularis** in presence of degeneration of the palpebral connective tissue separating orbicularis fibres.
- The spasm is induced by **local irritation** in inflammatory and traumatic conditions.



Clinical picture

- Condition is found in **elderly** patients
- Tight bandaging may cause spastic entropion
- Narrowness of palpebral aperture
- Seen in **lower lids**

Treatment of Spastic Entropion

- Removal of cause i.e. removal of cause of irritation, tight bandaging
- Treatment of surface disorder by artificial tears and control of conjunctival infection and lid inflammation with antibiotic
- Fixing of lower lid after everting it with adhesive tape
- Injection of Botulinum toxin into pre-tarsal orbicularis to weaken it

Surgical treatment

- Producing a ridge of fibrous tissue in the orbicularis to prevent its fibres from sliding in vertical direction

Congenital Entropion

- This condition is due to dysgenesis of lower lid retractor or due to abnormal development of tarsal plate.



Ectropion

- Ectropion is out-rolling of lid margin
- **Symptoms are:**
 - Watering (due to eversion of punta)
 - Foreign body sensation
 - Pain
 - Redness
 - Photophobia (Due to involvement of cornea)

Symptoms are due to eversion of puncta, and exposure of ocular surface, chronic conjunctivitis caused by exposure and drying of surface

Classification

- I. Acquired
 - i. Involutional or senile
 - ii. Cicatricial
 - iii. Paralytic
 - iv. Mechanical
- II. Congenital

Involutional Ectropion

- Effect of age: Slowly there is relaxation of lid structures (canthal ligament and orbicularis)
- Stages:
 - i. Early stage: in mild cases on looking up the puncta is not apposed to bulbar conjunctiva
 - ii. Progresses to moderate stage puncta are not apposed to bulbar conjunctiva even in primary gaze and entire lid margin fall away from the globe



Involutional Ectropion

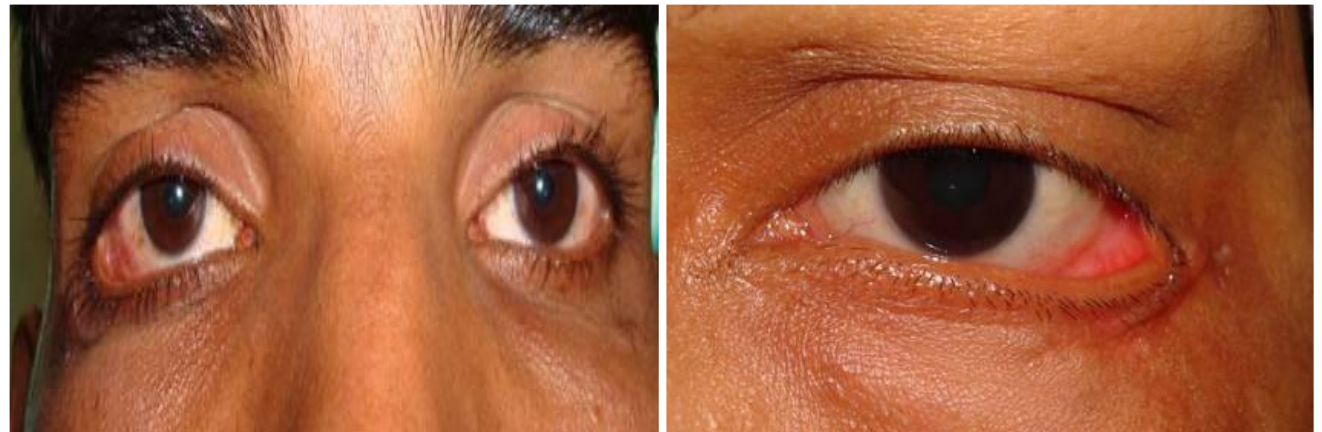
- iii. In severe case lower lids are rolled out and palpebral conjunctiva (including tarso-conjunctiva and fornix are exposed)

Tears are no longer drained into nose and overflow onto the cheek

Treatment: is surgical

Cicatricial Ectropion

- Is out-rolling of lid margin due to contraction of scar tissue on skin side.
 - i. Commonly results from lid trauma, burns, chemical injuries and chronic inflammations of lid skin.
 - ii. Due to contraction of scar the lid skin shortens pulling the eyelid away from the eyeball



Treatment

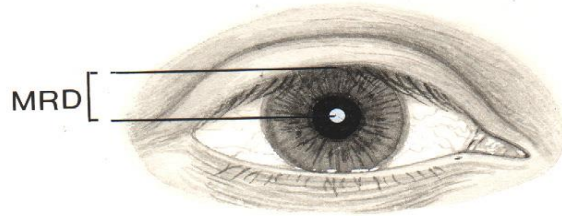
- Principle of surgery: release and relaxation of the scar tissue and restoration (elongation) of skin by blepharoplasty
 - i. Localized small scar may be treated by V-Y operation
 - ii. Large scar requires excision of scar tissue and application of matching (whole or split) skin graft.

Paralytic Ectropion

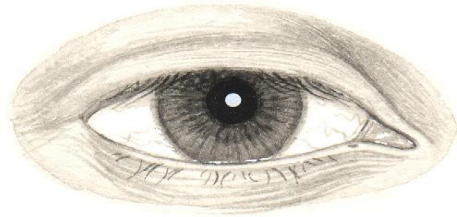
- This condition is due to paralysis of the facial nerve due to Bell palsy, surgery on parotid gland and trauma
- Characterized by presence of other signs of facial palsy initially treated by conservative treatment by taping of lids, lubricating eye drops, till there is recovery
- Lateral tarsorrhaphy, by suturing freshened upper and lower lids at outer canthus
- Lagophthalmos due to weakness of superior orbicularis may be treated by taping

Ptosis

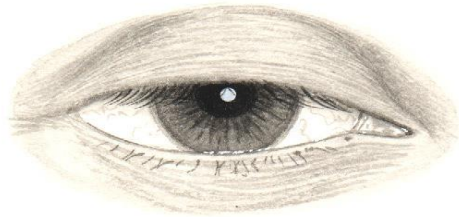
➤ Drooping of the upper lid



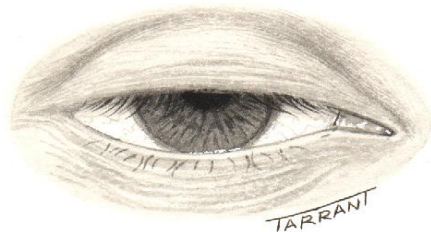
- Distance between upper lid margin and light reflex (MRD)



Mild ptosis (2 mm of droop)



Moderate ptosis (3 mm)



Severe ptosis (4 mm or more)

Ptosis

- **Congenital** – often associated with amblyopia, either from visual deprivation, associated strabismus or astigmatism. Refer early
- **Acquired** – may be due to lesions anywhere along the course of innervation of the levator palpebrae muscle (3rd nerve and cranial sympathetics – Horner's syndrome), diseases of the muscle (myasthenia gravis, myopathies), age-related changes in the tendon (aponeurosis) of the levator muscle (commonest).
- **All should be assessed by and ophthalmologist**
- **Amenable to surgical correction in vast majority**

Lid Retraction

- Nearly all due to associated **thyroid eye disease** – transient eyelid retraction due to over stimulation of the sympathetic nervous system, more permanent retraction due to auto-immune inflammation then fibrosis in the extra-ocular and levator muscles.
- Lid retraction associated with **exophthalmos** (proptosis) causes lagophthalmos (inability to close the eyes) and drying and ulceration of the corneas
- **Treat with lubricants** (drops and ointments) and later eyelid surgery (correction of eyelid retraction, tarsorrhaphy)

Inflammatory disorders

➤ **Blepharitis**

- It is a subacute or chronic inflammation of the lid margins. It is a common disease condition and can be divided into the following clinical types
- Seborrhoeic or squamous blepharitis,
- Staphylococcal or ulcerative blepharitis,
- Mixed staphylococcal with seborrhoeic blepharitis,
- Posterior blepharitis or meibomitis
- Parasitic blepharitis.



Inflammatory disorders

➤ Chalazion

- It is also called a *tarsal* or *meibomian cyst*. chronic non-infective granulomatous inflammation of the meibomian gland

➤ Etiology

- Pathogenesis. Usually first there occurs a mild grade infection of the meibomian gland by organisms of very low virulence. As a result, there occurs proliferation of the epithelium and infiltration of the walls of the ducts, which are blocked. Consequently, there occurs retention of sebum in the gland causing its enlargement. The secretions act like an irritant and excite non-infective granulomatous inflammation of the meibomian gland



Chalazion

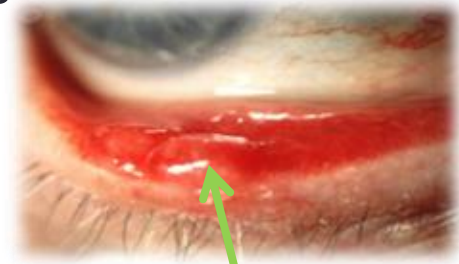


➤ Symptoms

- Patients usually present with a painless swelling in the lid and a feeling of mild heaviness. Examination usually reveals small, firm to hard, non-tender swelling present slightly away from the lid margin

➤ Clinical Course and Complications

- Spontaneous resolution may occur rarely
- Often slowly *increases in size* and becomes very large
- Occasionally, it may burst on the conjunctival side, forming a fungating mass of granulation tissue
- *Secondary infection* leads to formation of hordeolum internum
- *Malignant change* into meibomian gland carcinoma is seen in elderly people



mass of
granulation
tissue

Chalazion

➤ Treatment

- *Conservative Treatment* in the form of hot fomentation, topical antibiotic eye drops and oral anti-inflammatory drugs
- *Intralesional injection* of long-acting steroid (triamcinolone) is reported to induce resolution
- *Incision and curettage* is the conventional and effective treatment for chalazion
- *Diathermy*. A marginal chalazion is better treated by diathermy

Inflammatory disorders



➤ External Hordeolum (Stye)

- It is an acute suppurative inflammation of gland of the Zeiss or Moll
- Etiology
 - It is more common in children and young adults (though no age is bar) and in patients with eye strain due to muscle imbalance or refractive errors.
 - Habitual rubbing of the eyes or fingering of the lids and nose, chronic blepharitis and diabetes mellitus are usually associated with recurrent styes.
 - Causative organism is usually *Staphylococcus Aureus*
- **Symptoms** include acute pain associated with swelling of lid, mild watering and photophobia

Stye

➤ Signs include

- *Stage of cellulitis* characterized by localized, hard, red, tender swelling at the lid margin associated with marked edema.
- *Stage of abscess formation* characterized by a visible pus point on the lid margin in relation to the affected cilia

➤ Treatment

- Hot compresses 2-3 times a day in cellulitis stage
- Antibiotic eye drops and eye ointment for controlling the infection
- Anti-inflammatory and analgesics to relieve pain and edema.
- Systemic antibiotics may be used for early control of infection

Internal Hordeolum

➤ Internal Hordeolum

It is a suppurative inflammation of the meibomian gland associated with blockage of the duct

➤ Etiology

- Primary Staphylococcal infection of the meibomian gland
- Secondary infection in a chalazion (infected chalazion).



Internal Hordeolum

➤ Clinical Picture

- Symptoms similar to hordeolum externum, except that pain is more intense
- It can be differentiated from hordeolum externum by the fact that the point of maximum tenderness and swelling is away from the lid margin and that pus usually points on the tarsal conjunctiva and not on the root of cilia

➤ Treatment

- Rx similar to hordeolum externum, except that, when the pus is formed, it should be drained by vertical incision from the tarsal conjunctiva

Disorders of Lashes

- Trichiasis
- Distichiasis
- Madarosis
- Poliosis

Madarosis

Decrease in number or complete loss of lashes



Local causes

Chronic anterior
lid margin disease

Infiltrating tumors

Burns, radiotherapy
or cryotherapy

Poliosis

Premature localized whitening of hair



○ Ocular associations

Chronic anterior blepharitis

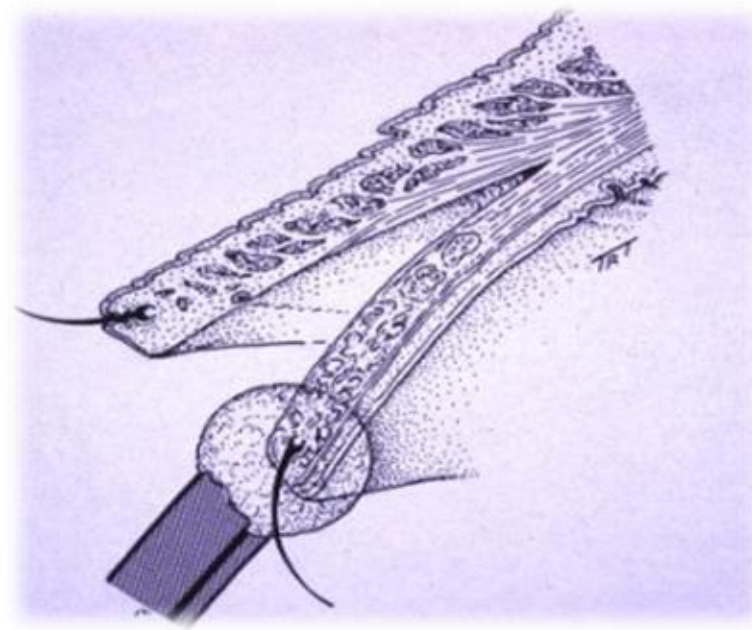
Sympathetic ophthalmitis

○ Systemic associations

Vogt-Koyanagi-Harada syndrome

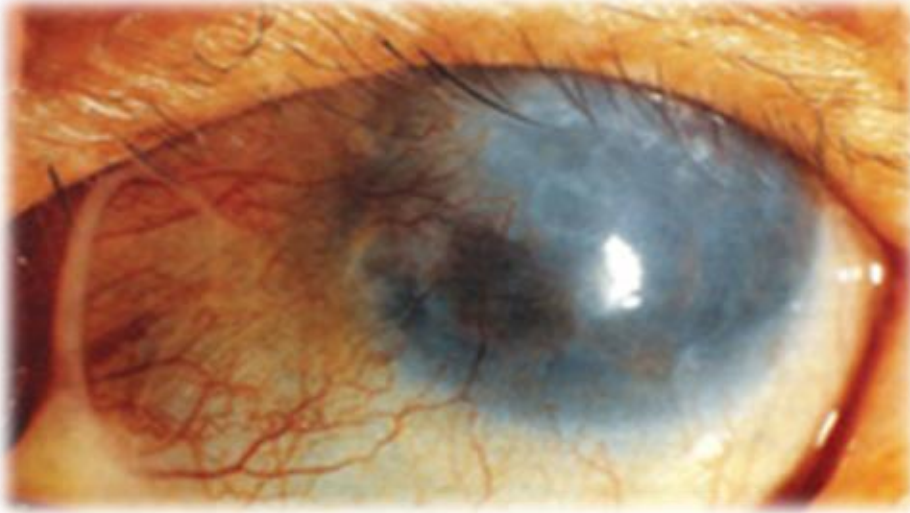
Waardenburg syndrome

Distichiasis



- Second row of lashes arising from meibomian gland orifices
- Congenital

Trichiasis



- Misdirection of cilia
- Inferior punctate epitheliopathy
- Causes
 - Trachoma
 - Blepharitis

Trichiasis

○ Trichiasis

It refers to the inward misdirection of cilia (which rub against the eyeball) with normal position of the lid margin. The inward turning of lashes along the lid margin is called pseudotrichiasis

○ Etiology

Common causes : cicatrizing trachoma, ulcerative blepharitis, healed membranous conjunctivitis, hordeolum externum, mechanical injuries, burns and operative scar on the lid margin

Trichiasis

○ Symptoms

- Foreign body sensation and photophobia
- Patient may feel troublesome irritation, pain and lacrimation

○ Signs

Examination reveals misdirected cilia touching the cornea

- Conjunctiva may be congested
- Signs of causative disease viz trachoma, blepharitis etc. may be present

○ Complications

- Recurrent corneal abrasions, superficial corneal opacities, corneal vascularization and non-healing corneal ulcer

Trichiasis

○ Treatment

- Epilation (mechanical removal with forceps) , its a temporary method, as recurrence occurs within 3-4 weeks
- Electrolysis is a method of destroying the lash follicle by electric current.
- Cryoepilation is also an effective method of treating trichiasis. Its main disadvantage is depigmentation of the skin
- Surgical correction : when many cilia are misdirected operative treatment similar to cicatricial entropion should be employed

➤ **Symblepharon**

- In this condition lids become adherent with the eyeball as a result of adhesions between the palpebral and bulbar conjunctiva

➤ **Blepharospasm**

- It refers to the involuntary, sustained and forceful closure of the eyelids.
- *Reflex blepharospasm.* It usually occurs due to reflex sensory stimulation through branches of fifth nerve. It is also seen in excessive stimulation of retina by dazzling light, stimulation of facial nerve due to central causes and in some hysterical patients.