Trachoma (Egyptian opthalmia)

It is a chronic Keratoconjunctivitis primarily affecting the superficial epithelium of conjunctiva and Cornea simultaneously.

- It is one of the leading cause of preventable blindness in the world. (15-20%)
- Trachoma means - rough

Etiology ⇒

(A) Causative organism -

caused by a bedsonian organism

Chlamydia trachomatis

These are epitheliotropic and produces intracytoplasmic inclusion bodies. called HP bodies (Halberstaedter Prowazek bodies)

→ 11 serotype of Chlamydia (A, B, Ba, C & D, E, F, G, H, J, K) have been identified

A, B, Ba, C — hyperendemic trachoma

D, K — inclusion conjunctivitis

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(B) Predisposing factors –

- Age – usually ~~infants~~ infancy and early childhood
  - but there is no age bar.
- sex – females
- Race – ~~most~~ common in jews
  less in Negroes.
- climate – common in dry and dusty weather
- socioeconomic status –
  common in poor class.
- environmental factor – dust, smoke irritants, sunlight
  - out door workers are more commonly affected.

(C) Mode of infection –

1. eye to eye
2. Direct spread – airborne or water borne
3. vector transmission – commonly by flies.
4. Material transfer –

Contaminated fingers
" tonometer
Other material (towel, handkerchief, etc.)

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Clinical feature ⇒ Described into two phases

1. Phase of Active trachoma →

- Due to active chlamydial infection
- Incubation period - 5 - 22 days.
- Sub acute to acute.

Symptoms -

Symptoms of active trachoma determined by absence or presence of secondary infection.

- In absence of secondary infection
  - mild foreign body sensation
  - occational lacrimation
  - ~~Slight thickness of~~
  - Slight stickness of the lid
  - mucoid discharge.

- In presence of secondary infection
  - Acute mucopurulent Conjunctivitis develops.

Sign —

① Conjunctival sign —

- Congestion of upper tarsal and ~~fornical~~ forniceal conjunctiva.
- Conjunctival follicles —
  follicles looks like boiled sagograins and commonly seen on upper tarsal conjunctiva and fornix.
  some times follicles may be seen on bulbar conjunctiva.

(*) Structure of follicles —
they are formed due to scattered aggregation of lymphocytes and other cells in adenoid layer.
central part of each follicle is made up of mononuclear histocytes, lymphocytes, multinucleated cell (Leber cell)
The cortical part is made up of a zone of lymphocytes showing active proliferation. Blood vessels are present in most peripheral part.
In later stage sign of necrosis seen.

- papillary hyper plasia —
  papillae are reddish, flat raised area which give red and velvety appearence to the tarsal conjunctiva.

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Each papilla consists of central core of numerous dilated blood vessels surrounded by lymphocytes and covered by hypertrophic epithelium.

(b) Corneal signs —

- Superficial Keratitis may present in upper part.
- Herbert follicles —
  follicles present in limbal area
- progressive pannus —
  The fibrovascular tissue seen in upper part
  The vessels are superficial and lie in between epithelium and Bowman's membrane.



- Corneal ulcer —
  develop at the advance stage of pannus

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2. Phase of cicatricial trachoma →

- Manifest at middle age
- Due to continuation of mild grade Chronic inflammation.

(a) Conjunctival signs —

1. Conjunctival scarring —
   They are irregular, star shaped or linear.
   Linear scar present in sulcus subtarsalis is called Arlt's line.

2. Concretion — hard looking whitish deposit, made up of dead epithelial cells and inspissated mucus in the depression called glands of Henle.

(b) corneal sign -

1. Regressive pannus (pannus siccus)
   Vessels extend beyond the area of infiltration.



2. Herbert pits —
   oval or circular pitted scars left after healing of Herbert follicles.

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3. Corneal opacity —
present in upper part may extend down and involved papillary area.

(c) lid signs —
may show trichiasis, entropion tylosis, ptosis, madarosis.

(d) Lacrimal apparatus sequelae —
Chronic dacryocystitis

Treatment ⇒

(A) Treatment of Active trachoma —

- Antibiotics — topical as well as systemic

• topical — Tetracycline (1%)
erythromycin (1%)
ointment 4 times/day
for 6 wks

• Systemic —
- Azithromycin
250mg OD × 4 days.

- Tetracycline or
Erythromycin 250mg
QDS × 3–4 wks.

- Doxycycline 100mg BD PC
× 3–4 wks.

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Topical + Systemic therapy —

Tetracycline (1%) or erythromycin eye ointment @ QDS x 6 wks

with.

Azithromycin / Tetracycline/ Erythromycin 250mg @ QDS x 2 wks.

(B) Treatment of Trachoma sequelae —

- Concretion removed by hypodermic needle.
- Cicatrical entropion treated by electrolysis or cryolysis
- Conjunctival xerosis - artificial tear.

(C) Maintain facial hygine —

(D) for Secondary prevention —

Antibiotics - topical and Systemic

(E) Surgery - if trichiasis or entropion

Trichiasis

It is the condition where misdirect of (inward) of cilia (which rub against eyeb ī normal position of the lid margin.

Pseudo trichiasis — In ward turning of lashes along ī the lid margin.

Etiology ⇒

cicatrising trachoma
Ulcerative blepharitis
healed membranous conjunctivitis.
Hordeolum externum
Mechanical injury
Burn
post operative scar

clinical feature ⇒

Symptoms —

foreign body sensation
photophobia
irritation
pain
lacrimation

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Signs –

- misdirected cilia
- Reflex blepharospasm and photophobia
- congestion of conjunctiva
-

Complications ⇒

Corneal abrasion
superficial corneal opacities.
Corneal vascularization
Corneal ulcer –

Treatment ⇒

1. Epilation – (mechanical removal of ~~misdirect~~ misdirected cilia)

2. Electrolysis – Destroying the lash follicle by electric current.

3. Cryoepilation –

4. Surgical Correction –

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