
بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

Clinical scenario

- A child of 6months is brought to you in out patient c/o watering & discharge from his Rt eye. On examination there is watering & discharge from the eye . Eye ball is normal . Lt eye is normal
- What is the most probable cause

- Birth trauma
- Buphthalmas
- Congenital NLD block
- Punctal atresia
- Conjunctivitis

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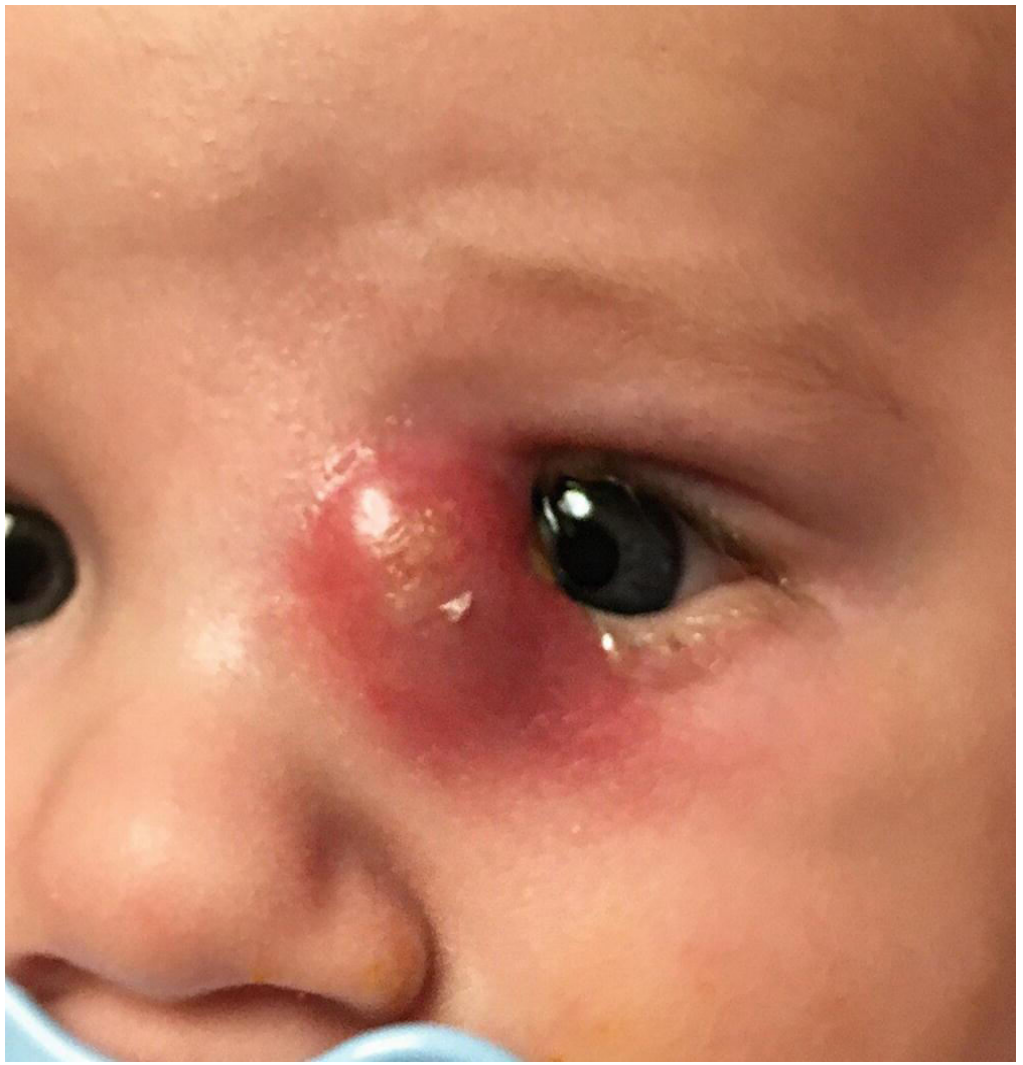


Theme Red eye

- NLD obstruction

- Dr Nazullah
- Associate Professor
- Kgmc/Hmc

NASOLACRIMAL DUCT OBSTRUCTION

Congenital

Acquired

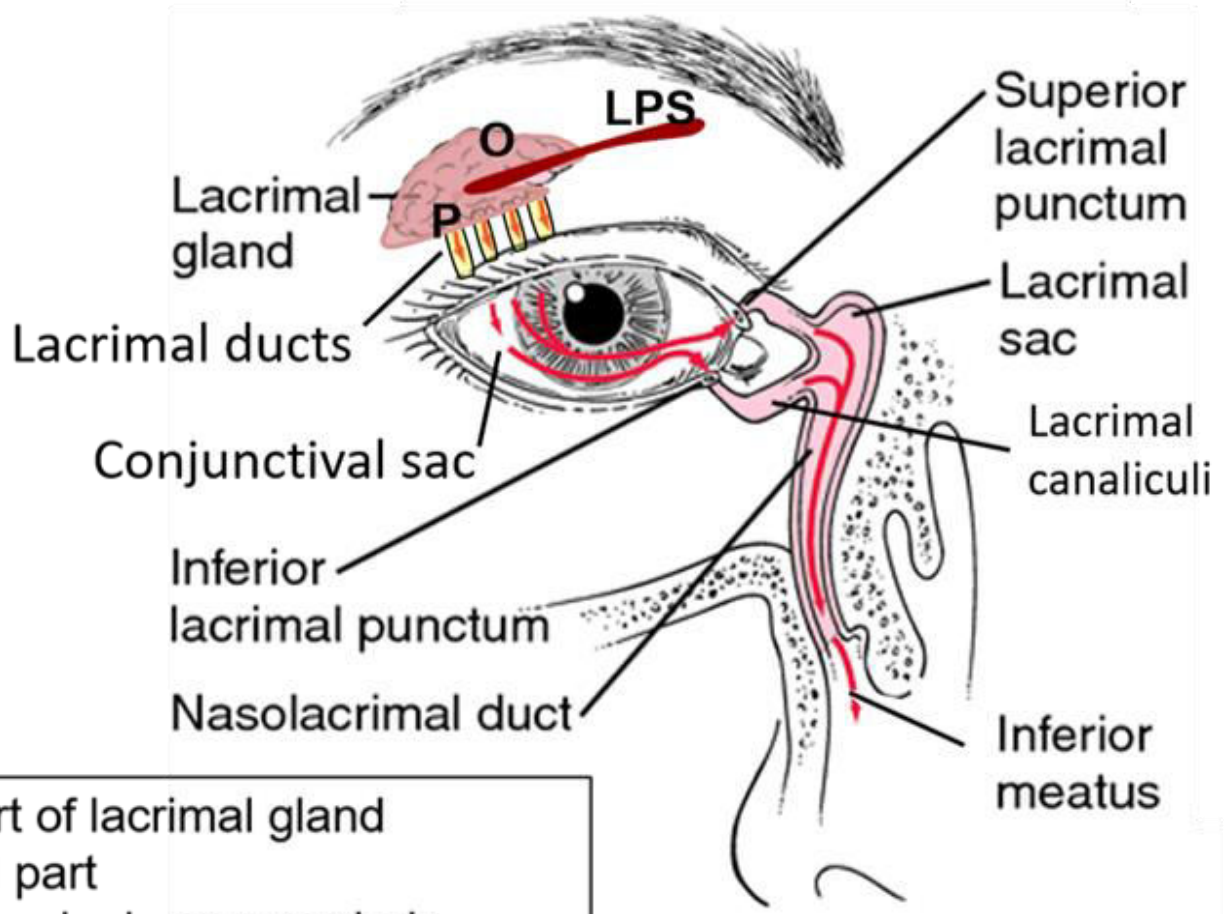
- Congenital

Anatomy of the lac system. ???

- Secretary portion ???

- Excretory portion ???

Anatomy of lacrimal system

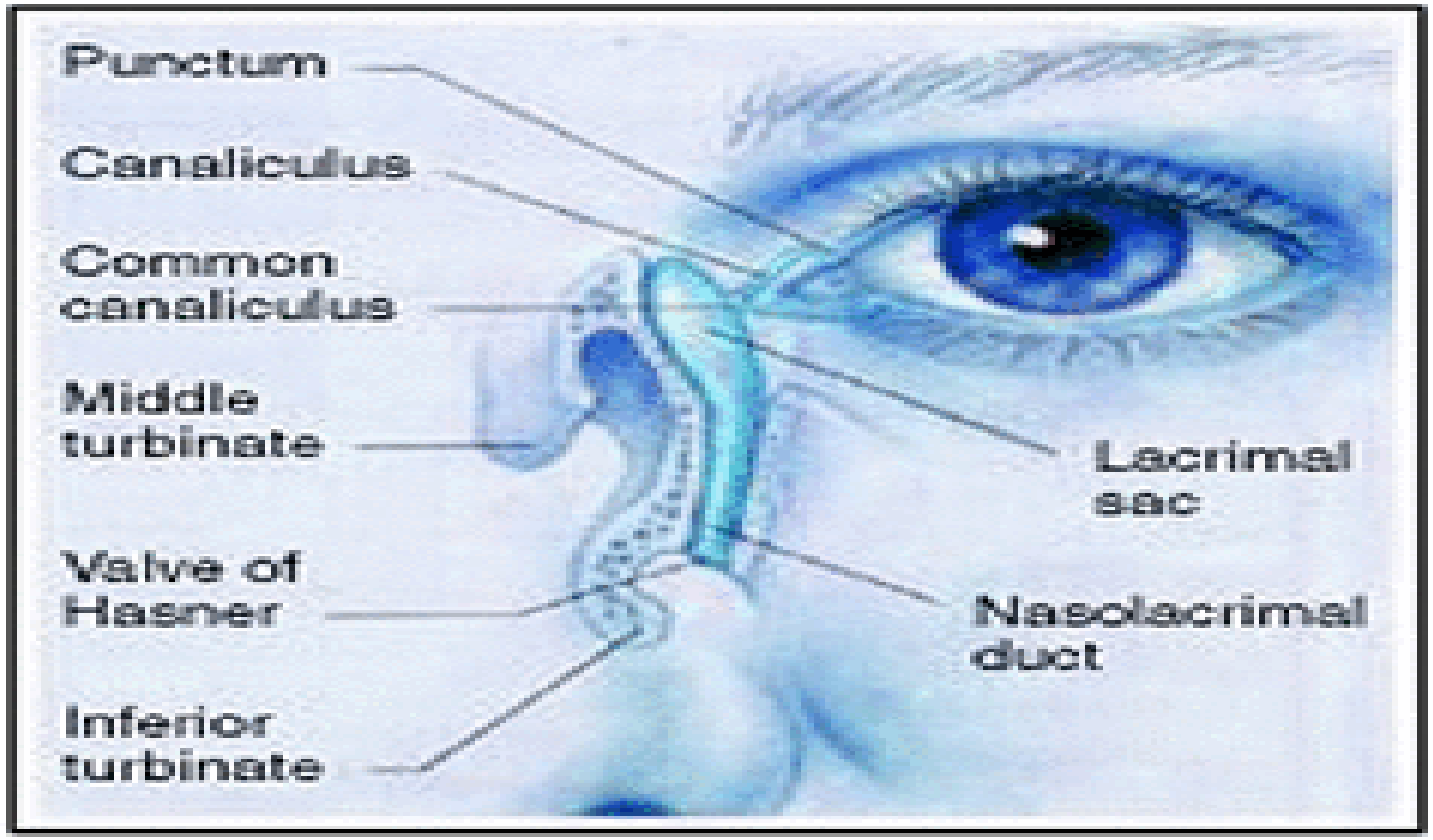


O- orbital part of lacrimal gland
P- palpebral part
LPS- levator palpebrae superioris

Lacrimal gland
↓
Lacrimal ducts
↓
Conjunctival sac
↓
Lacrimal punctum
↓
Lacrimal canaliculi
↓
Lacrimal sac
↓
Nasolacrimal duct
↓
Inferior meatus of nose

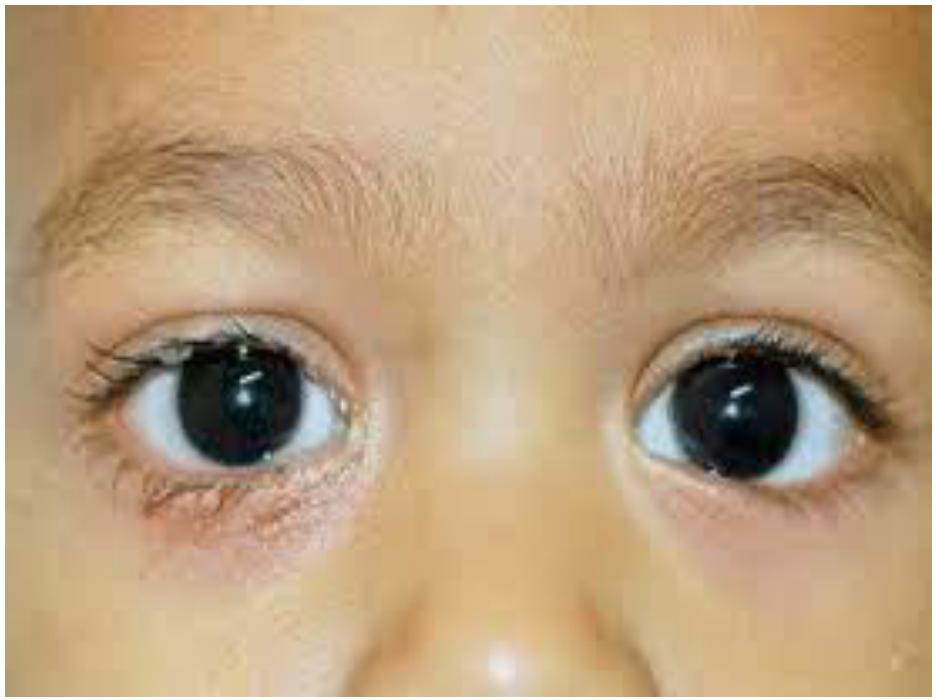
Lacrimal drainage portion

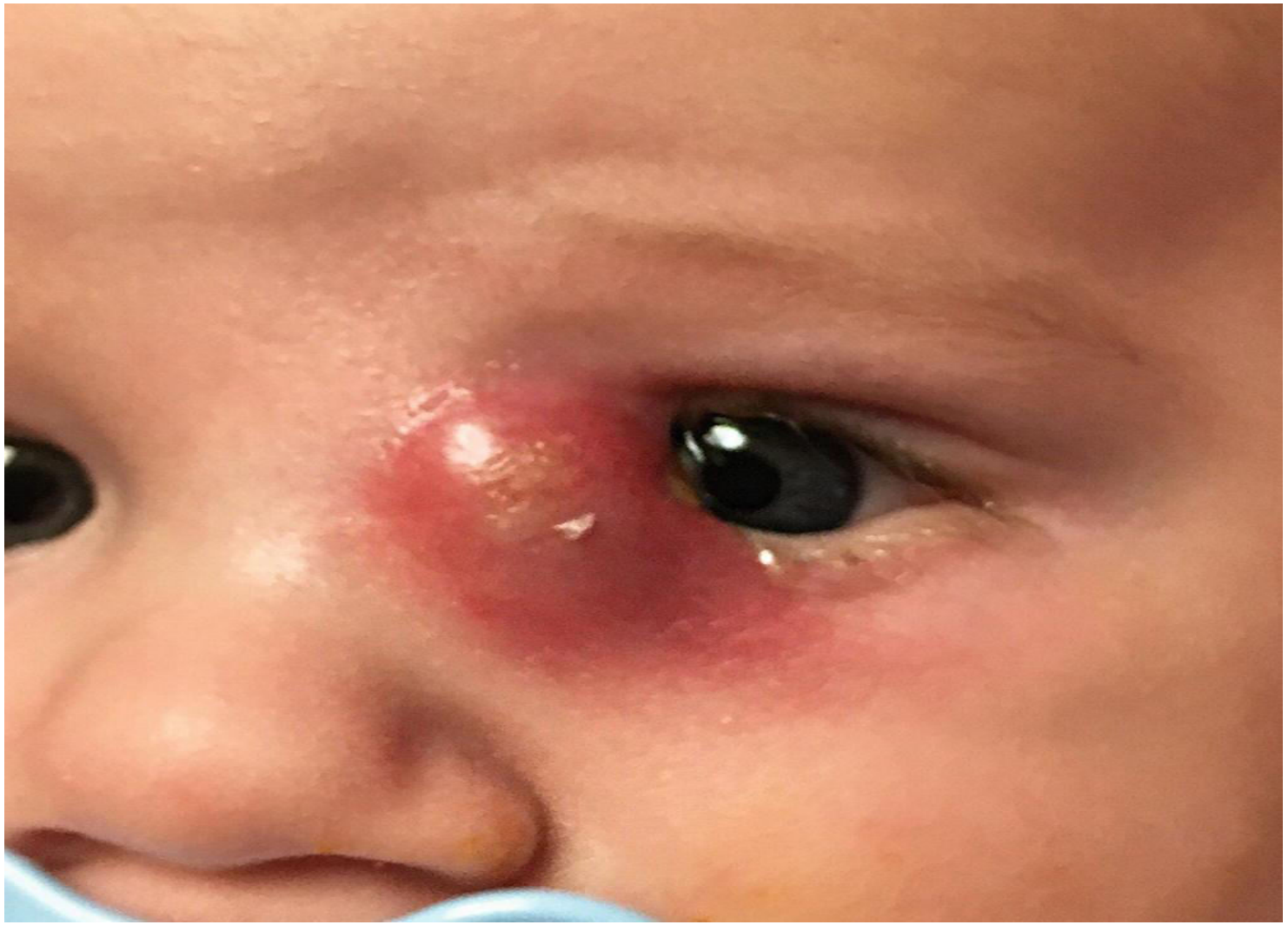
- The lacrimal system
- Punctum .3mm
- Canaliculus, vertical 1-2mm
- Horizental 6-8mm
- Common caliculus
- Lac sac 12-15mm
- Nasolacrimal duct 15-18mm



Congenital Watering/Epiphora, causes

- Congenital NLD block
- Punctal atresia
- Conjunctivitis
- Birth trauma
- Congenital glaucoma
- Foreign body



- 

Objectives

- At the end of this session the 4th yr MBBS student should be able

- Enlist Different causes
- What are Clinical features
- What are Different Treatment options
- How Regurge test is performed

Etiology/Causes;

- Is common congenital lacrimal problem
- Occurs about in 5% children
- Due to non-canalization of the membrane (Hasner valve) at the lower
- end of the nasolacrimal duct
- Which usually opens spontaneously within few weeks of life
- Failure to open will cause watering and infection

Clinical features;

- Symptoms occurs typically within 3-4 weeks of life
- There is watering with with sticky mucoid or mucopurulent discharge

- It is usually uniocular but may be bilateral
- Regurge is positive by giving gentle pressure over the lac sac area

Complications

- Conjunctivitis
- Acute dacryocystitis
- Chronic dacryocystitis
- Mucocele
- Fistula formation

Differential Diagnosis

- Punctal atresia
- Conjunctivitis
- Birth trauma
- Congenital glaucoma
- Foreign body
- Keratitis / uveitis

Contnd Management

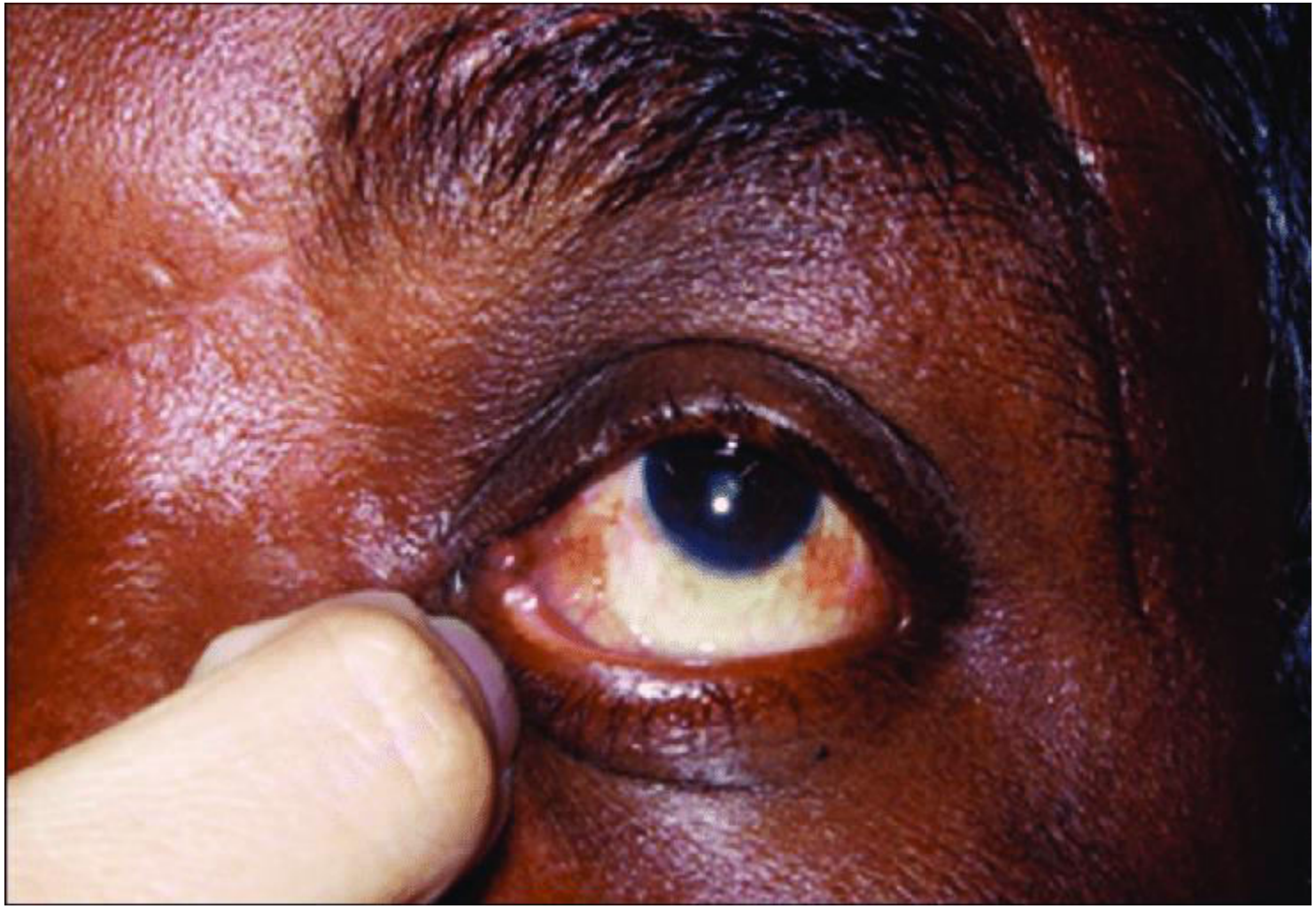
- Conservative
- Massage & Topical Antibiotics
- By applying Digital pressure over the lac sac will increase the hydostatic pressure and may rupture the membranr
- About 10 stroke 4-5 times daily
- Topical & systemic antibiotic to prevent and treat secondary infection
- Results ; about 90-95% in 6-9 months of age

Difference between ??? Audience ???

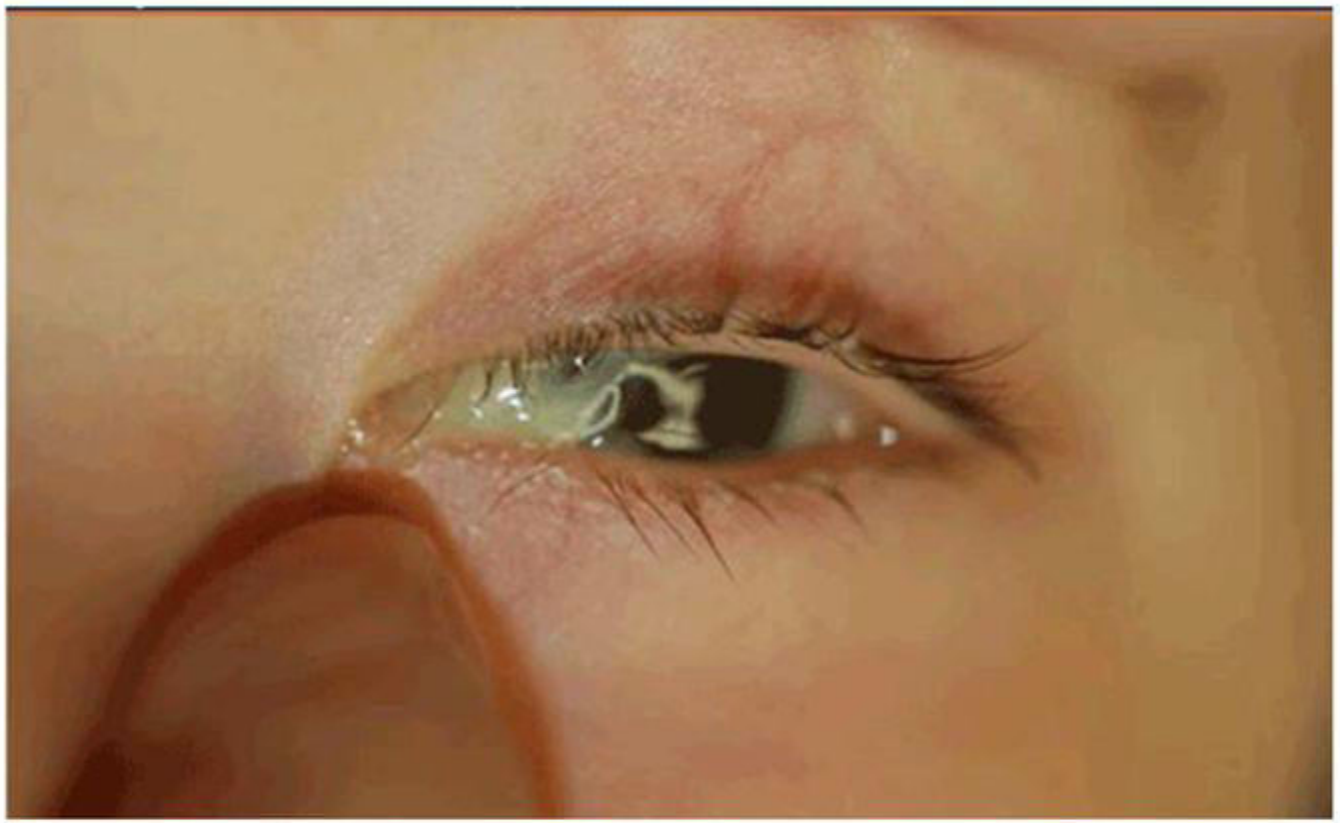
- Regurge test

- Lacrimal massage

Regurge



Positive regurge

- 

Lacrimal massage

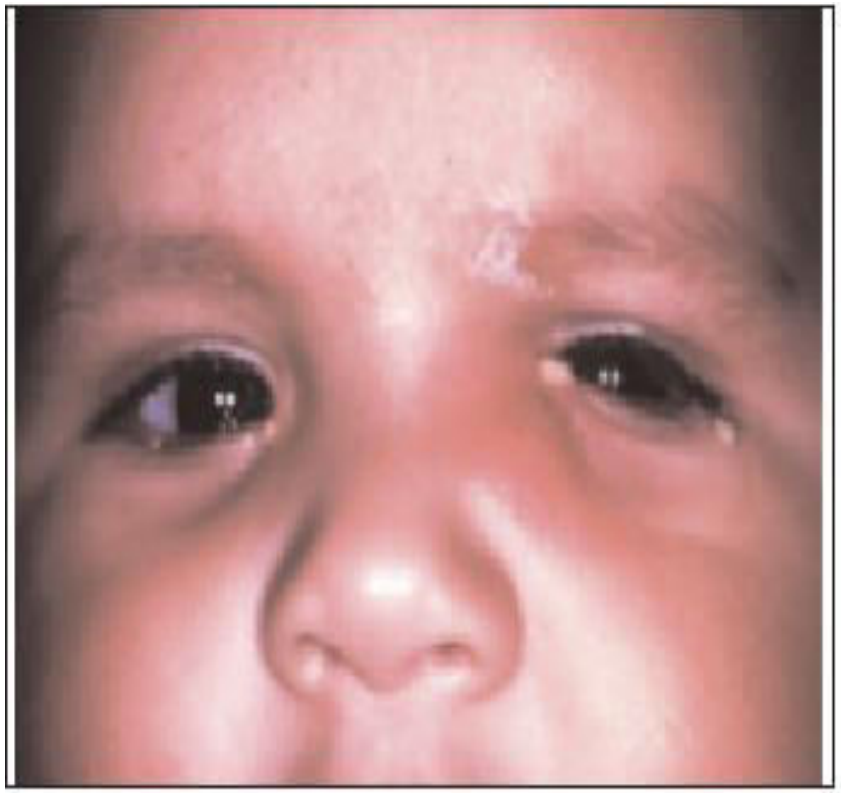
- 

Figure 1: BNLD before massage.

Figure 2: Method of massaging.

Treatment Contd

- Probing should be delayed 8- 12 months of age
- Done UGA
- A probe is passed through puctum, canaliculus, lac sac into the nasolacrimal duct and nose
- Results The results of probing are excellent. 90% of cases are cured by the 1st probing and about 6% in the 2nd probing

Probing

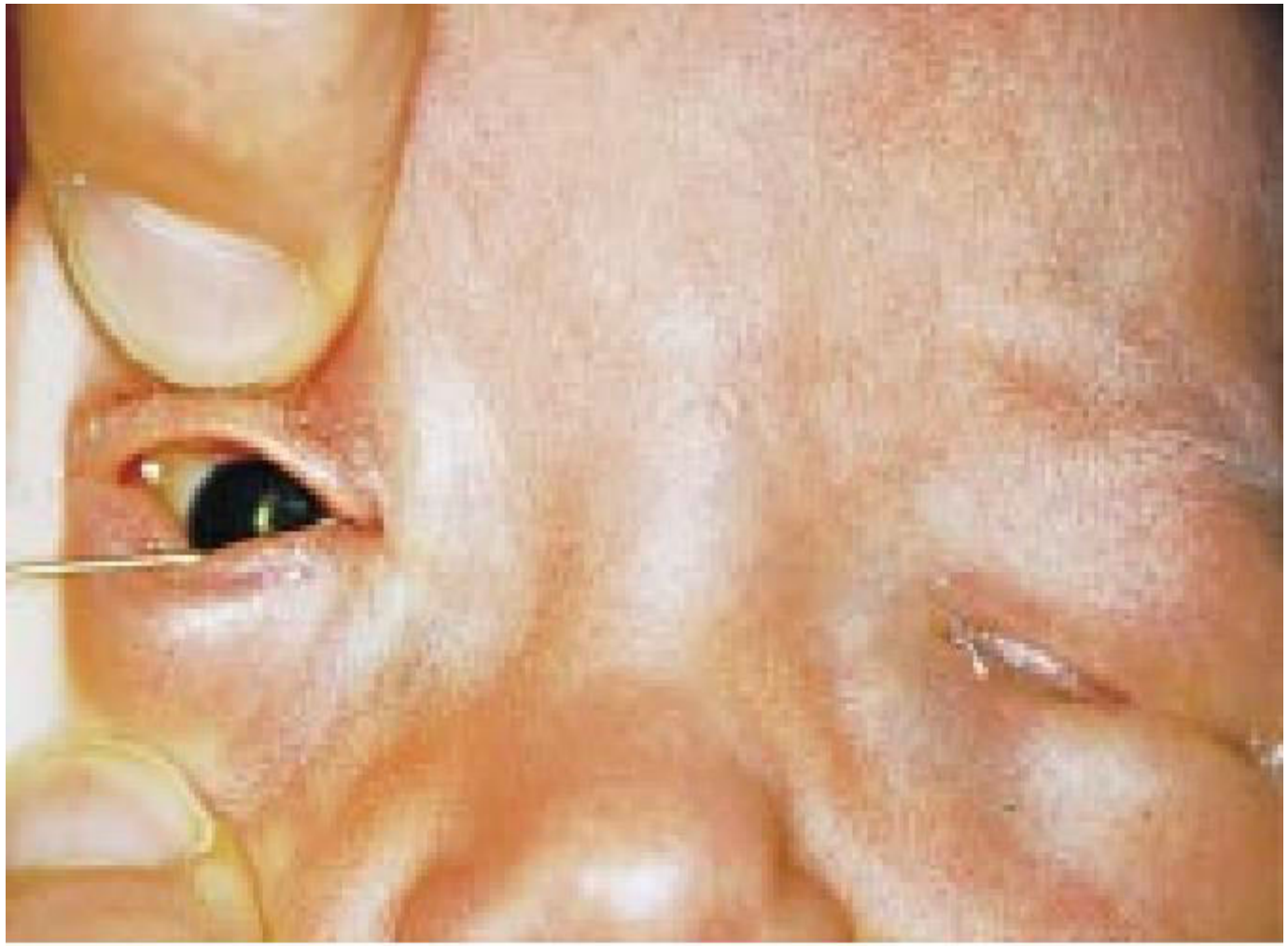
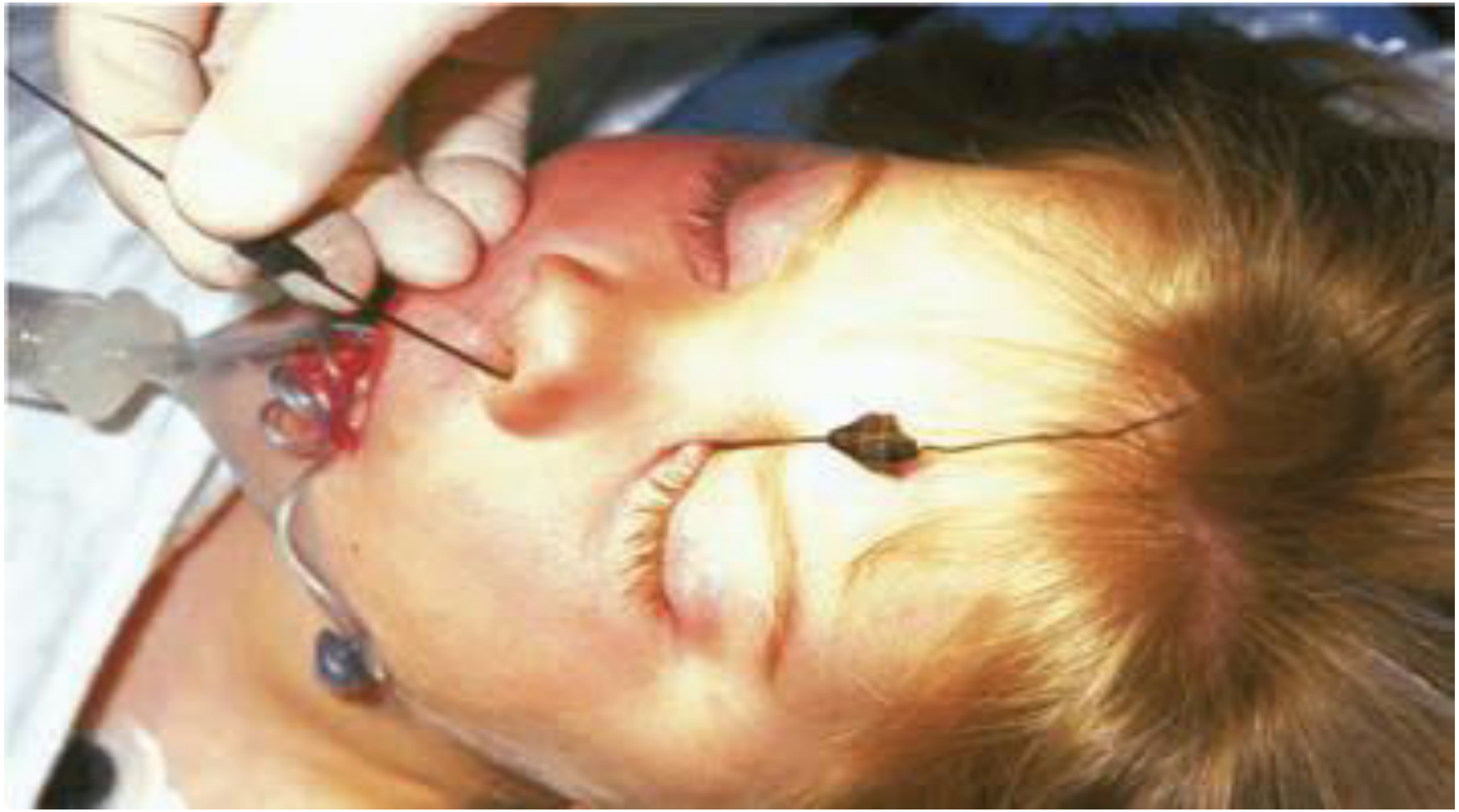
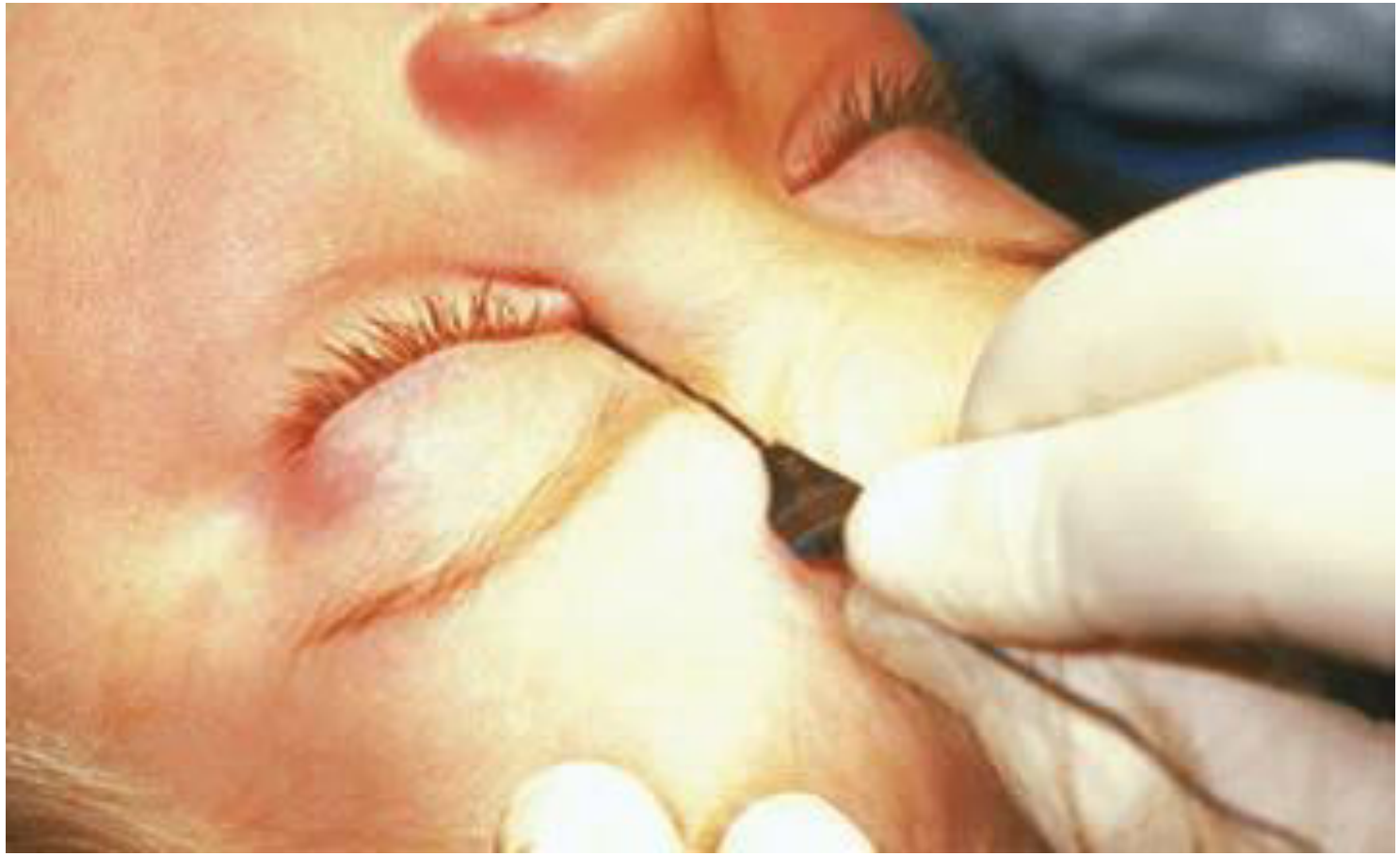


Figure 5 : Sondage de la portion horizontale de la voie lacrymale

Probing



Probing

- 

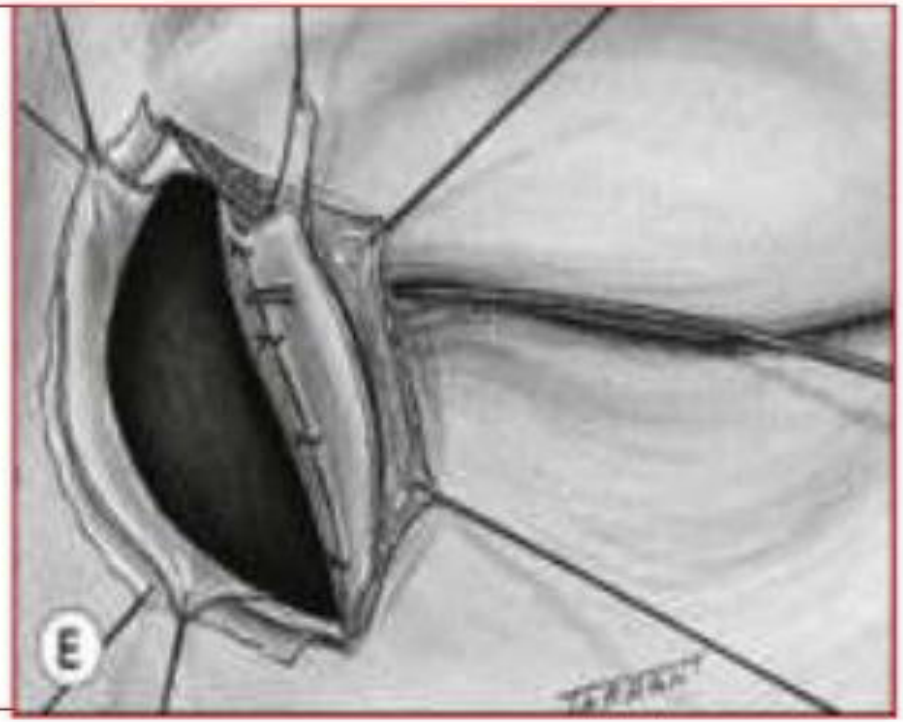
- Intubation without Dacryocystorhinostomy (DCR)
- Upto 2-3 yrs tube is passed in the lacrimal passages without DCR.
- Stays for 5-6 months

- Dacryocystorhinostomy
- After 4-5yrs of age dcr is done
- Fistula is formed between the lac sac and the nose by cutting the lac sac, the bone and nasal mucosa

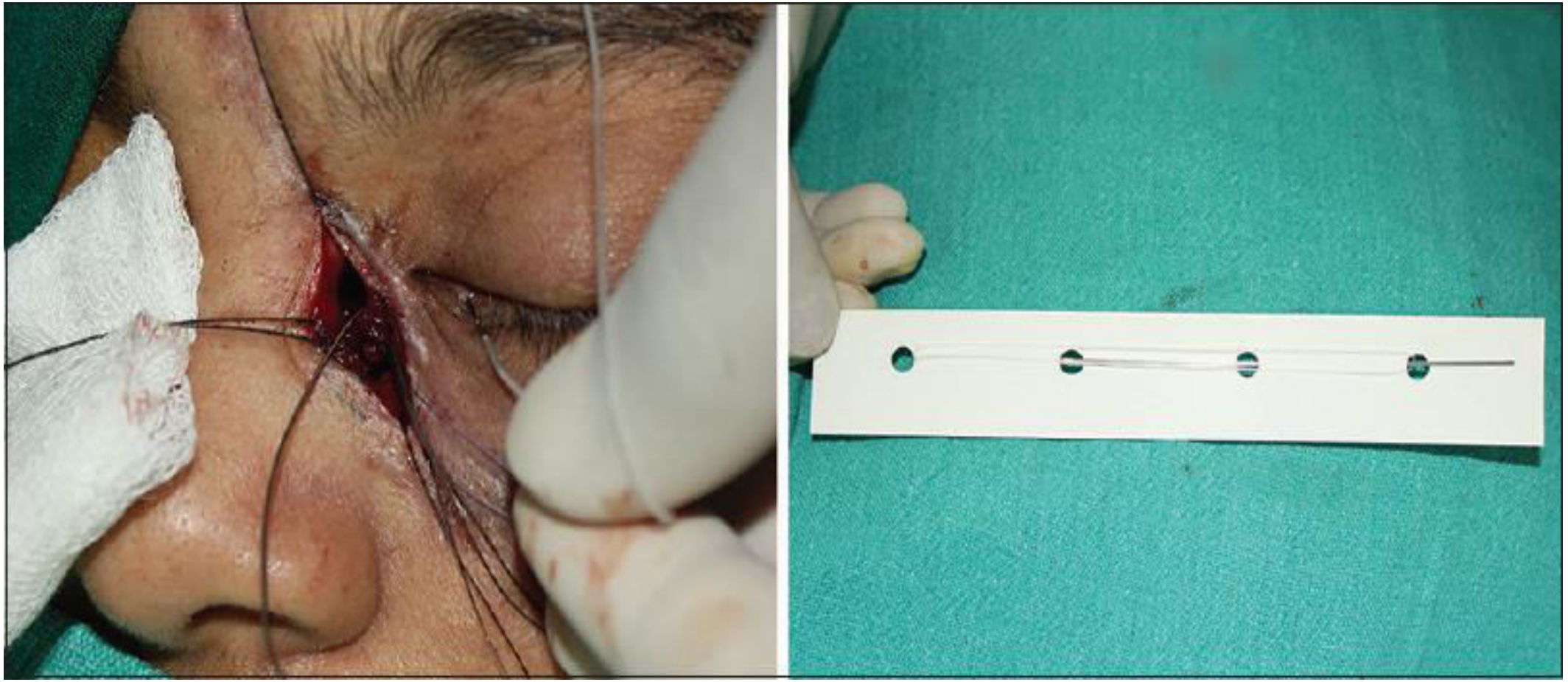

Probing
LVPEI
Dr Javed Ali

DCR

- The posterior flaps are sutured (Fig. 2.18E).
- Silicone intubation may be performed.



DCR



Clinical scenario

- A child of 6months is brought to you in out patient with CLDO with watering & discharge from his Rt eye. On examination there is watering & discharge from the eye . Eye ball is normal. Lt eye is normal
- Where is the usual site of obstruction.?

  - **Canaliculus**
  - **Common canaliculus**
  - **Lac sac**
  - **Lower end of NLD**
  - **Punctum**

Adults nasolacrimal duct obstruction

- CAUSES:
- Involutional stenosis, most common cause
- Inflammatory disease such as sarcoidosis, Wagner's granulomatosis
- Trauma , Tumors of nasopharynx
- Dacryolith etc etc.
- Clinical features;

Watering with mucoid and mucopurulent discharge

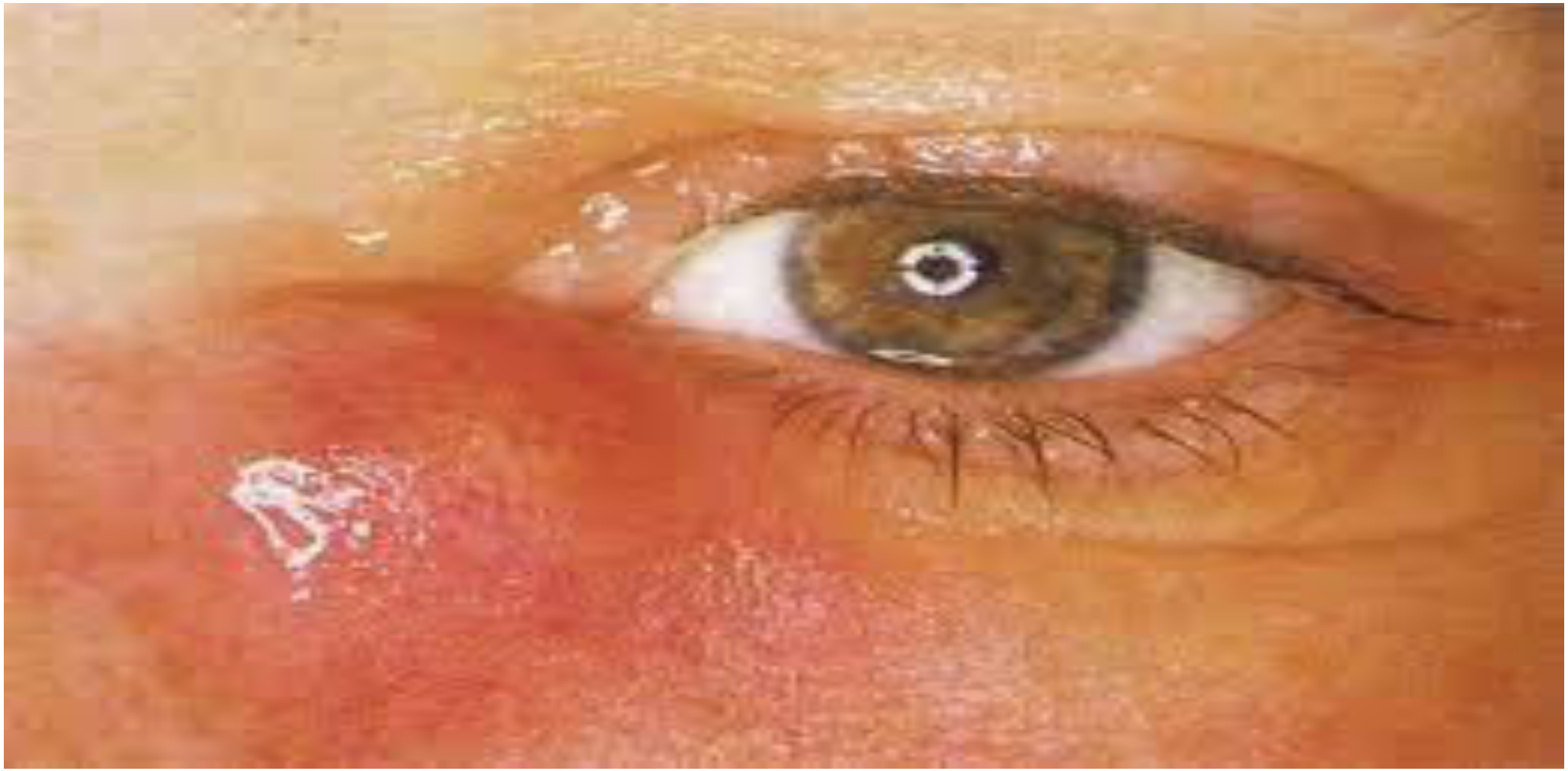
Recurrent Attacks of Dacryocystitis

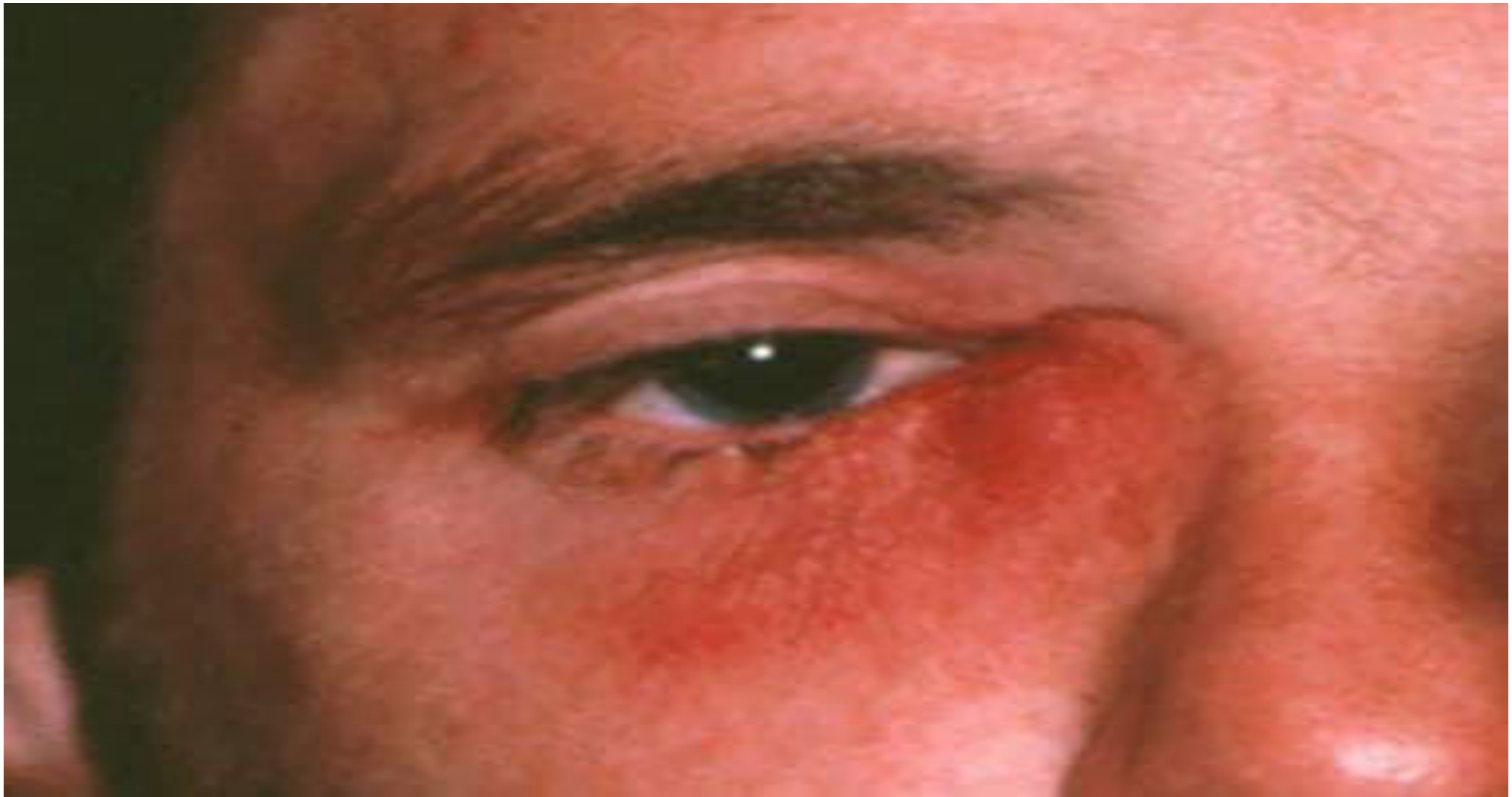
Conjunctivitis

Dacryocystitis

- Acute Dacryocystitis
- Chronic Dacryocystitis

Acute





Causes/Aetiology

- It may arise denovo or as a secondary infection of already obstructed nasolacrimal duct
- Organism like Bacteria such as Staphylococcus, Streptococcus and Pseudomonas invasion etc etc are the usual causes

Clinical features

- Painful swelling, redness and watering in the medial canthal area
- Examination shows swelling in the medial canthus, red and tender to touch
- Difficult to examine
- Regurge is difficult to perform, painful
- Discharge purulent mucopurulent
- Abscess formation may occur

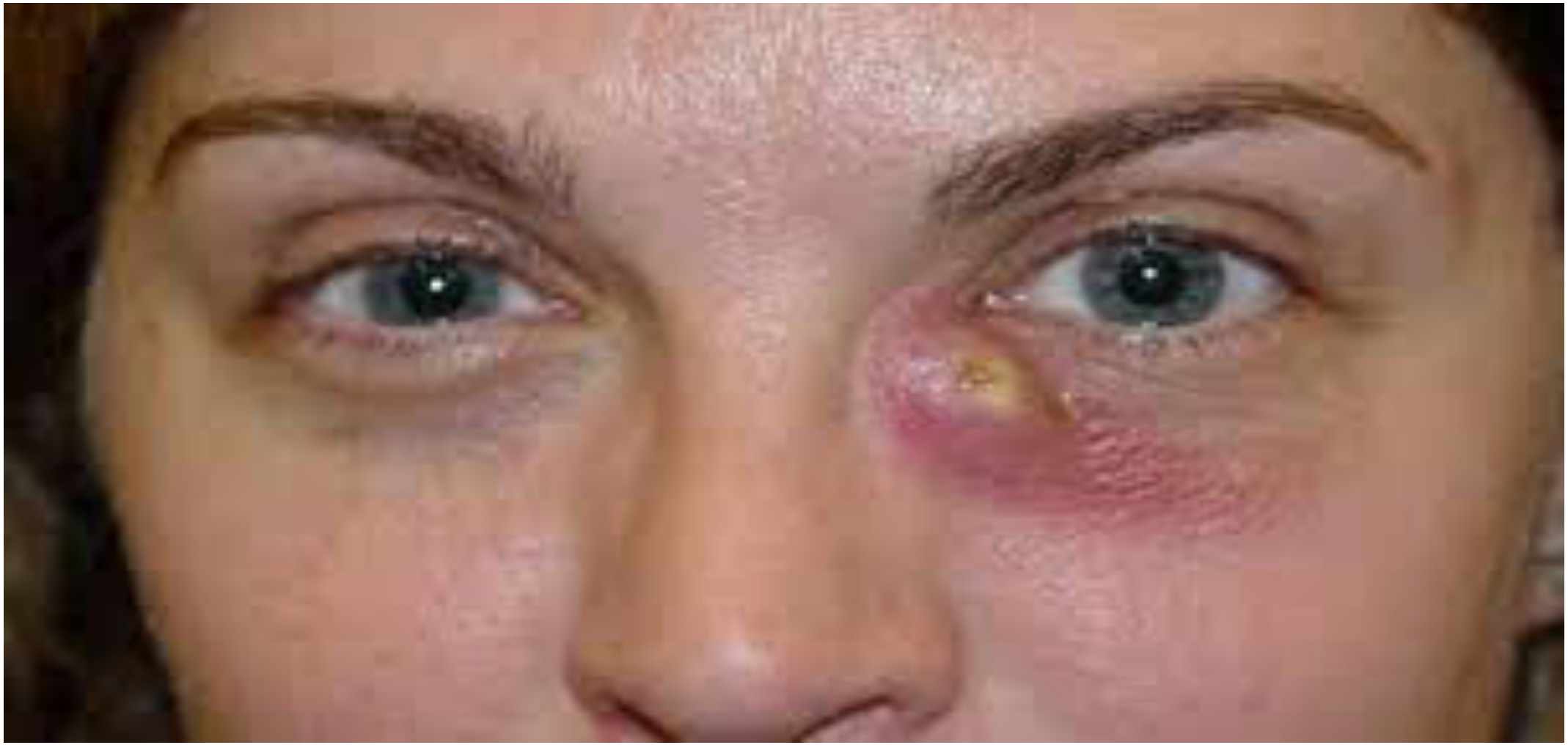
Complications

- Preseptal cellulitis
- Fistula formation

Cellulits/Abscess

Cellulitis

Fistula



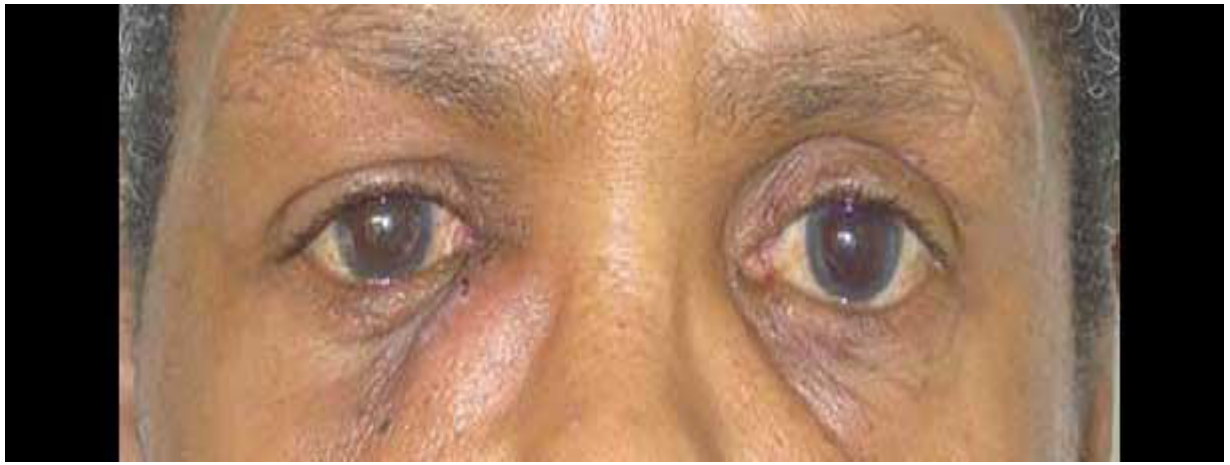
Treatment

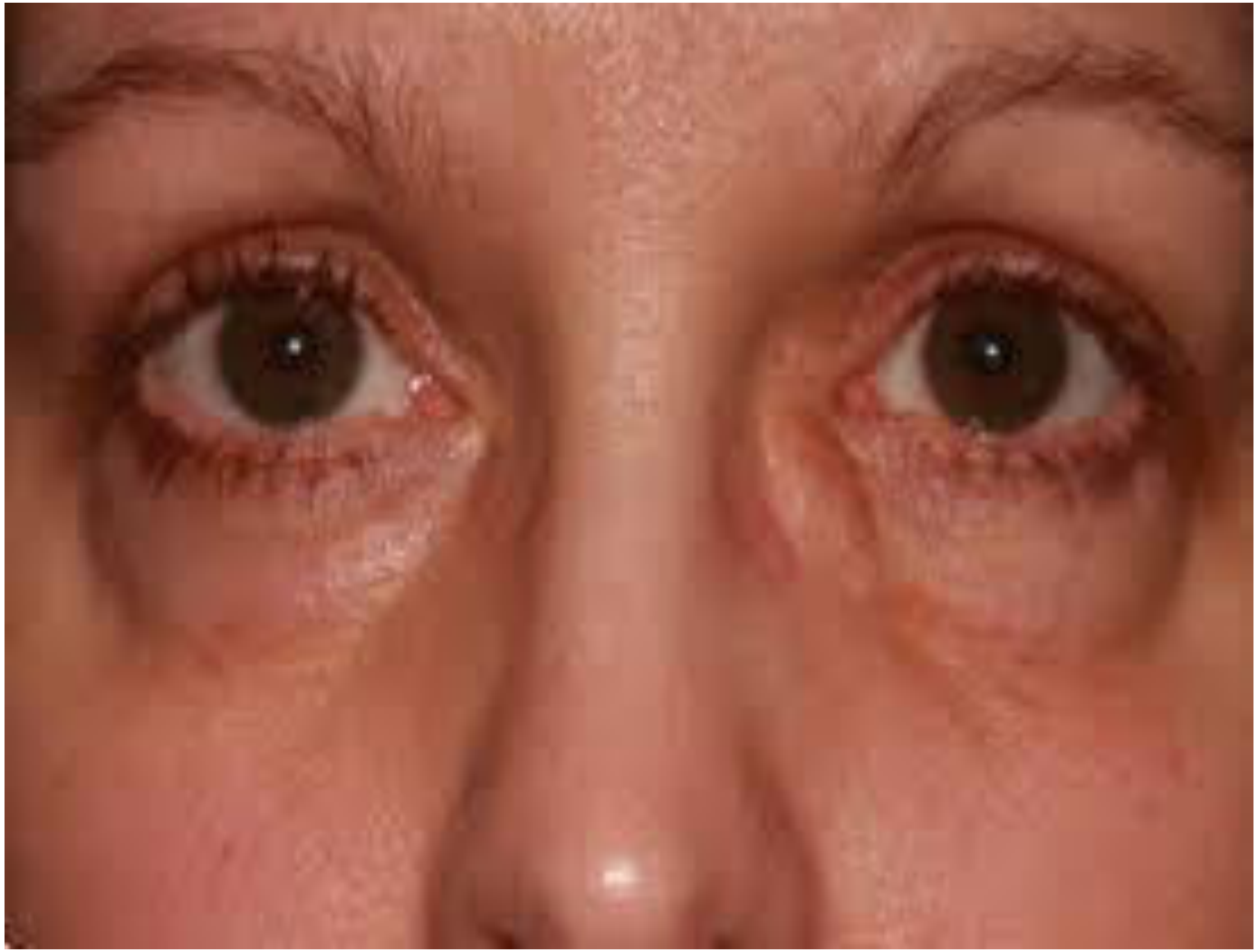
- Antibiotic
- Analgesic

- Systemic and Local

- Hot compression

Chronic Dacryocystitis





Aetiology

- Is the chronic inflammation of the lac sac
- The impaired of the sac leads to the stasis of the tear flow which eventually leads to secondary infection by low virulent organism

Clinical features

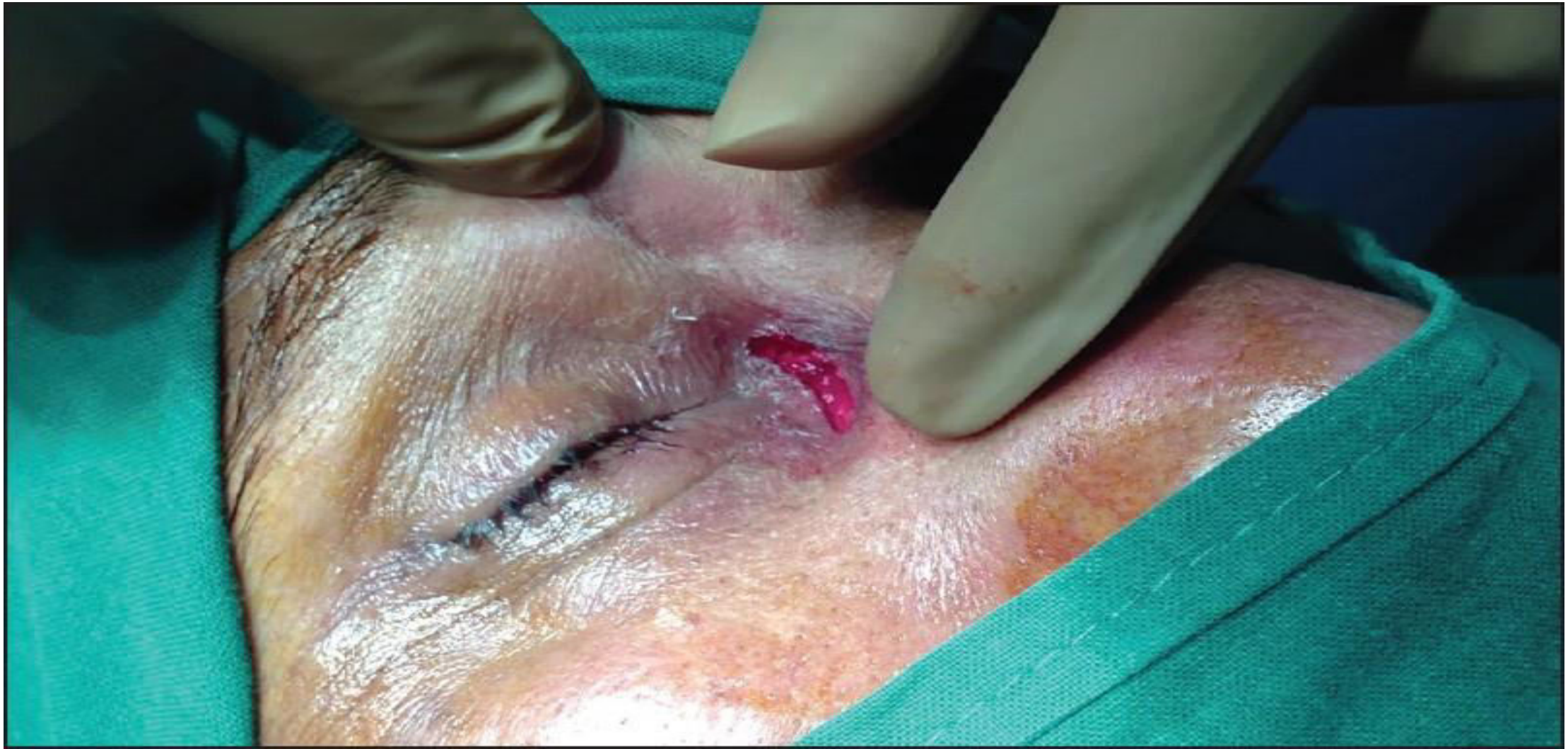
- More common than acute cdc
- C/o watering & discharge
- May be there is swelling in the medial canthal area
- Unilateral may b bilateral
- Regurge is positive with reflux of water, mucoid and mucopurulent material from the punctai.
- Mucocele formation
- May b associated with ch-conjuctivitis

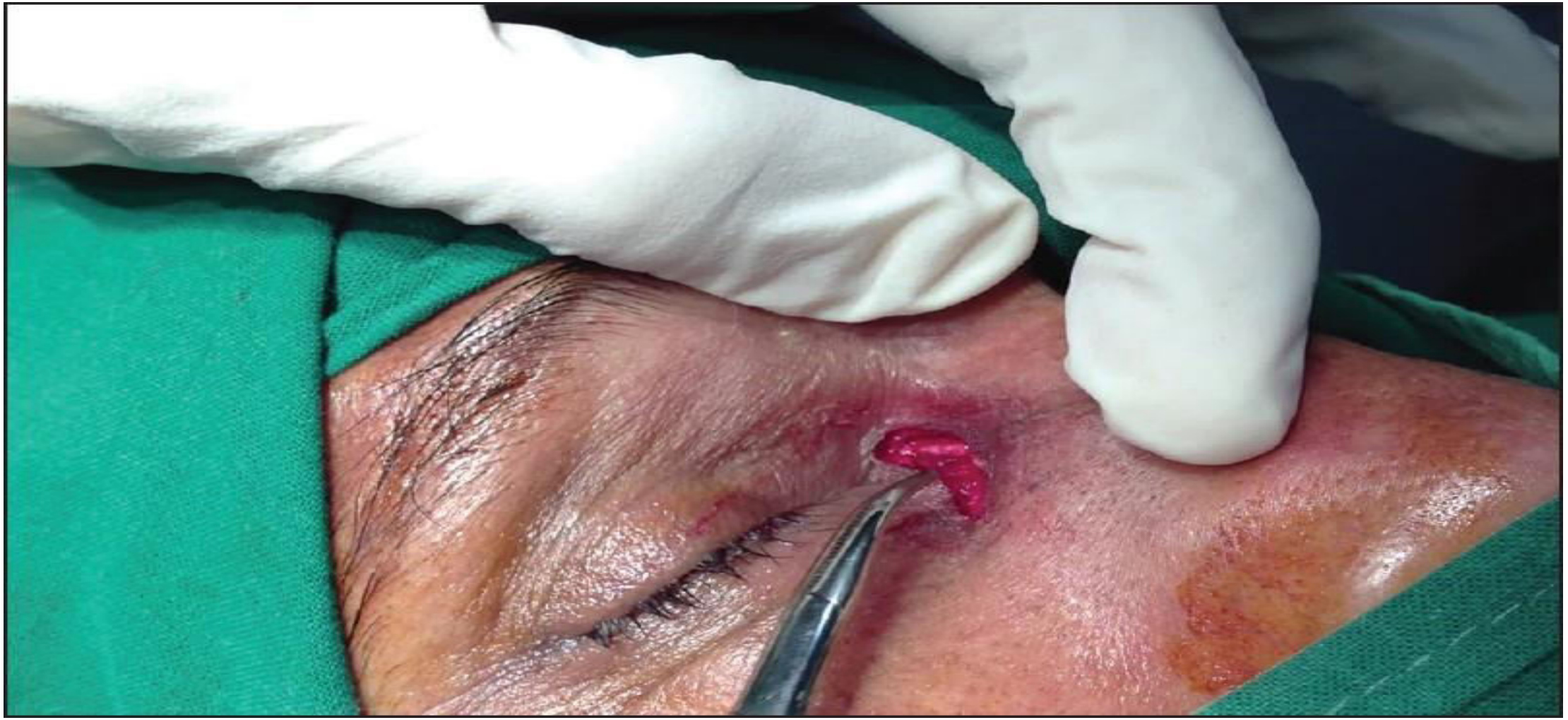
Probing syringing

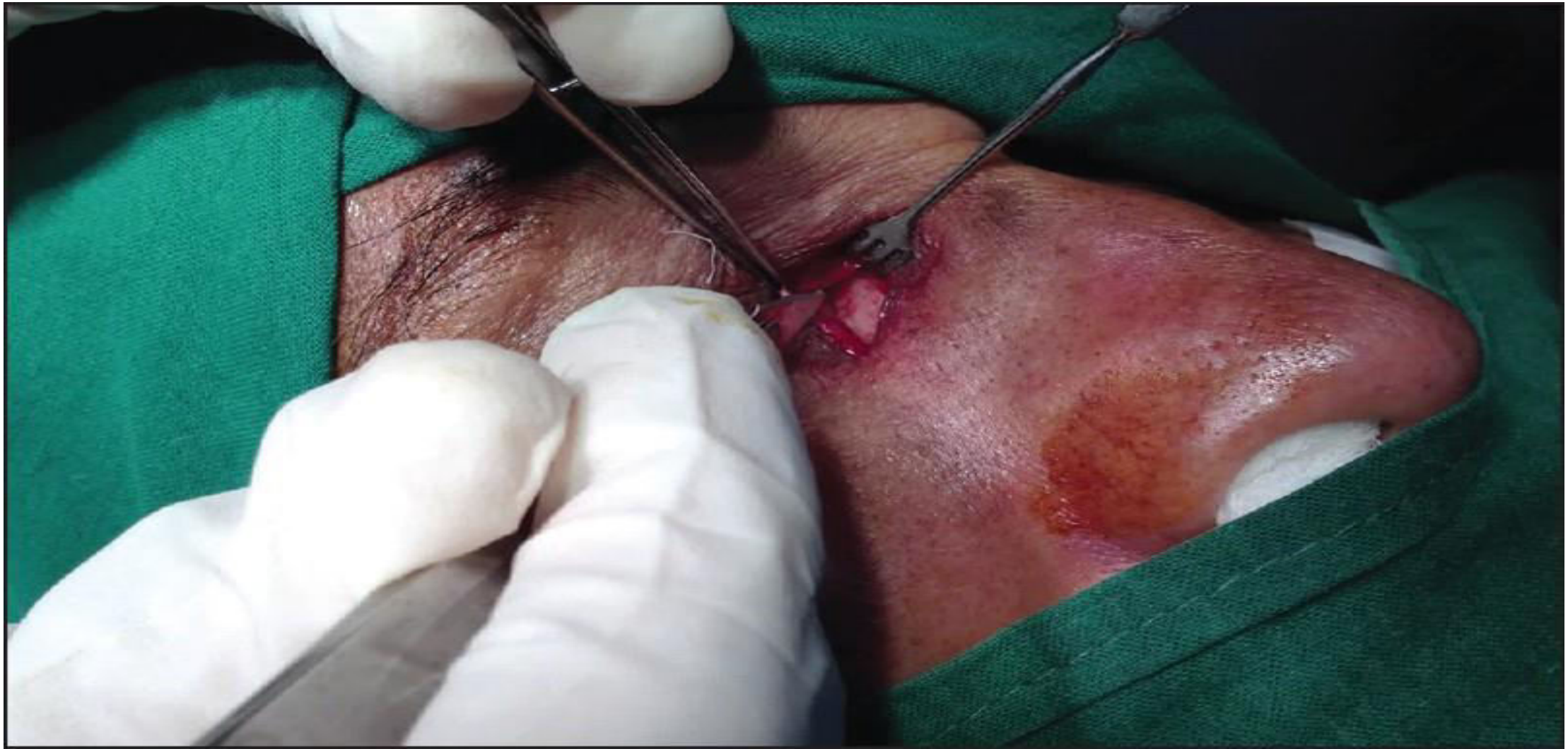
- Diagnostic/therapeutic; in adult it is done not only for therapeutic purposes but mainly for diagnostic purposes
- To relieve the obstruction
- To determine the level of obstruction

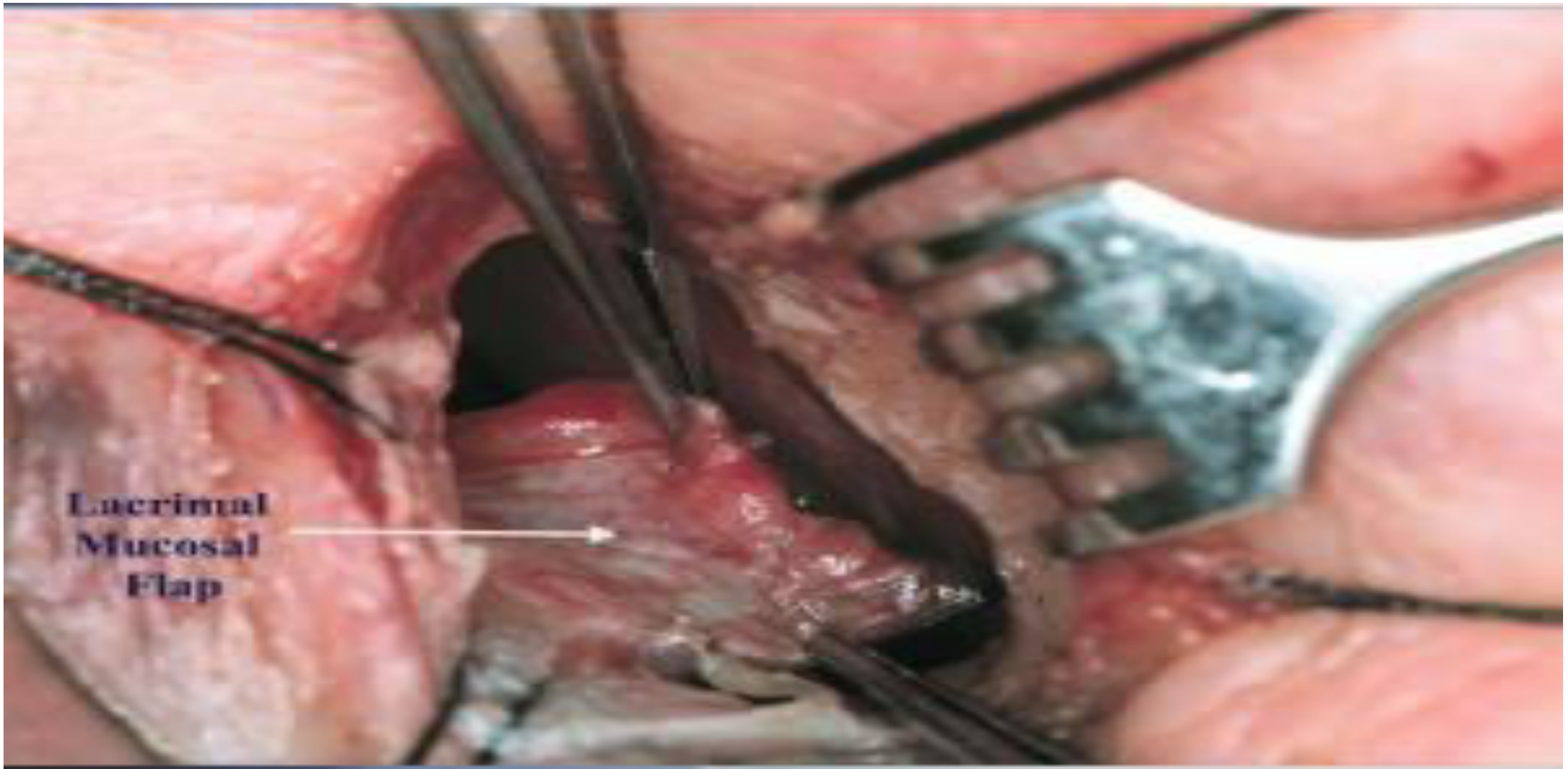
Treatment; Dacryocystorhinostomy(DCR)

- To make a communication between lac sac & nasal cavity
- Skin Incision
- Skin, muscle separation,
- Bone & Lac sac exposed
- Bone punching/cutting
- Nasal mucosa exposed
- Cutting and stitching of sac+mucosa with each other
- Muscle and skin stitches








Lacrimal
Mucosal
Flap

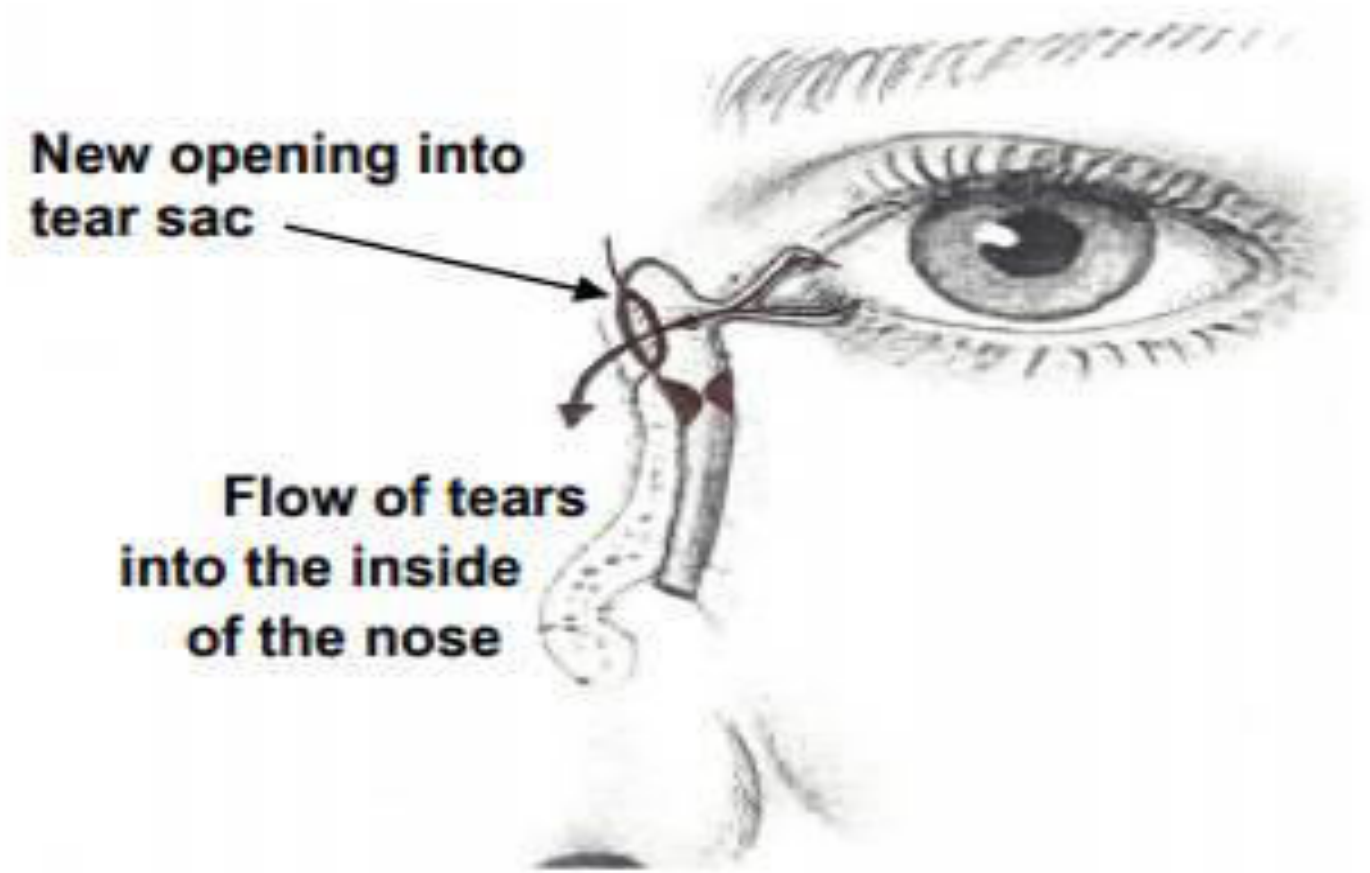
- Success rate is 90-95 %

DCR endoscopic+ Diode laser

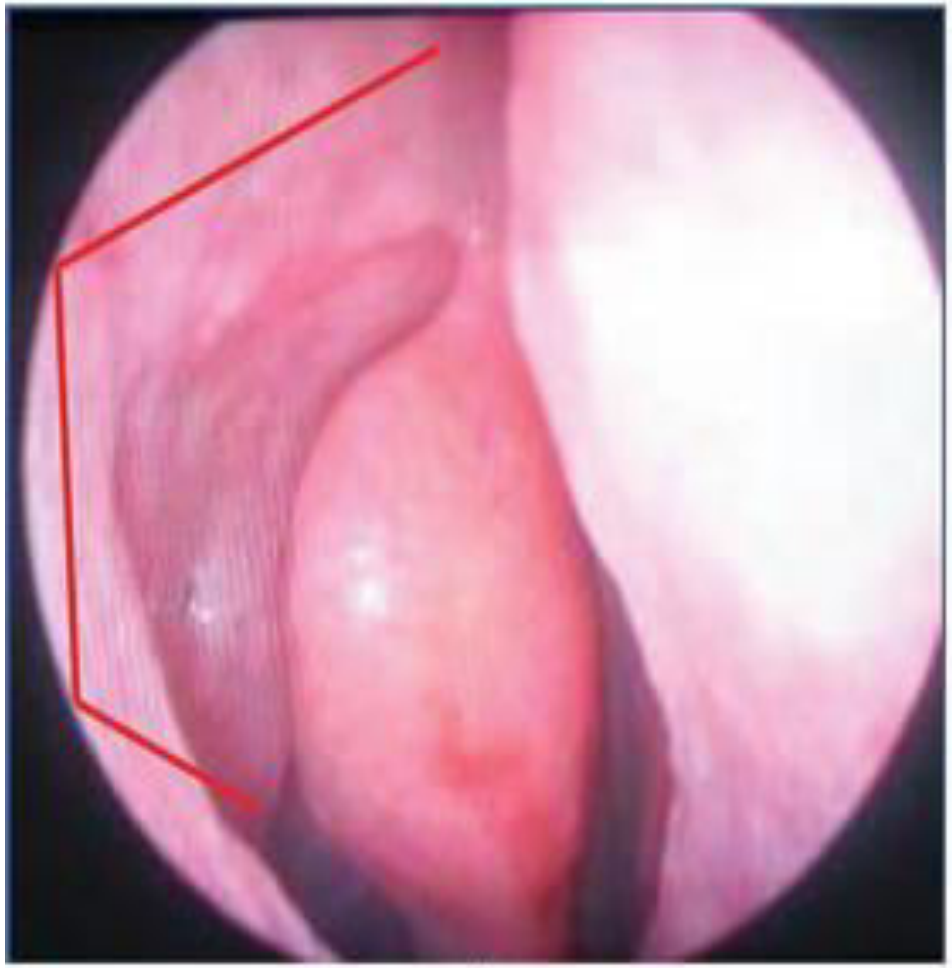
- No skin incision
- Through endoscope the small cut is given from the nasal side
- Dcr tube Badkin tube/Silicon tube is passed

- No skin incision
- Through Diode laser in probe, the cut is given to the bone
- Dcr tube Badkin tube/Silicon tube is passed
- No scar

Diagram 3:


New opening into
tear sac
Flow of tears
into the inside
of the nose

Endoscopic dcr



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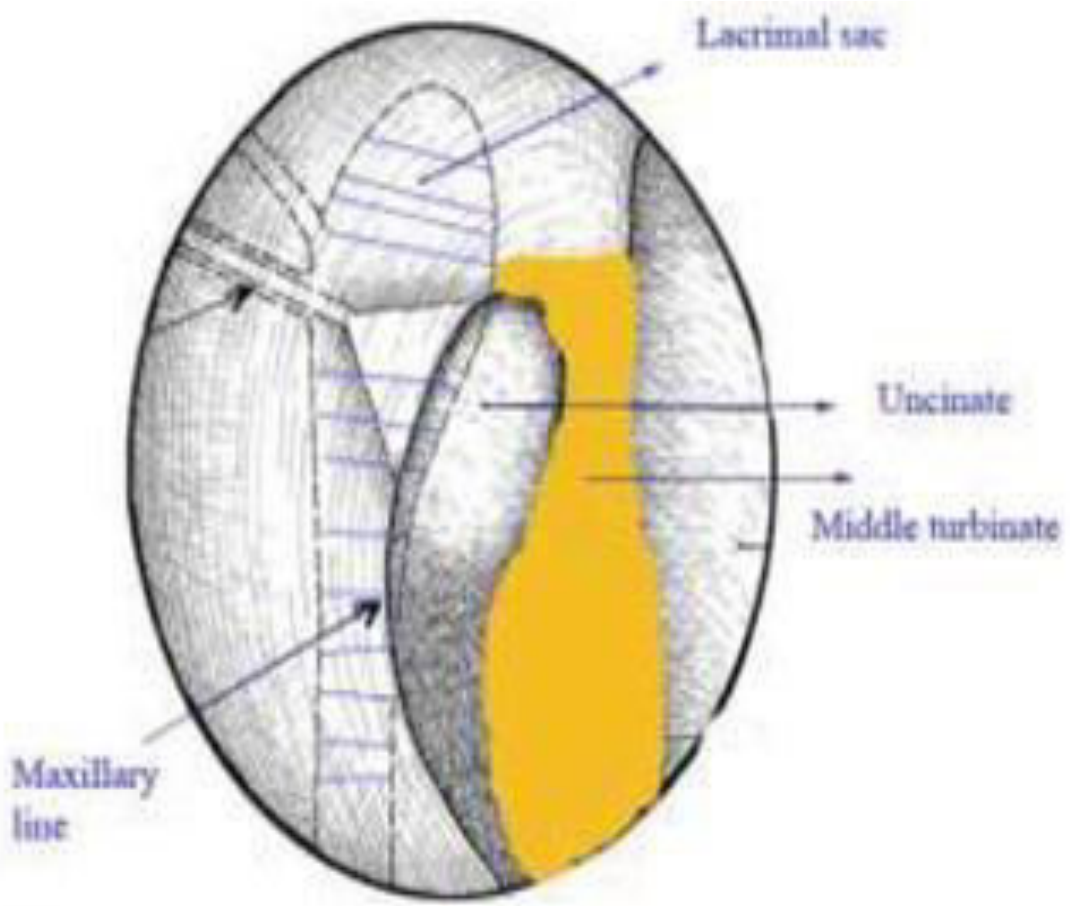

B

- But the Failure rate is high

- Thanks

- DR NAZULLAH
- ASSOCIATE PROFESSOR
- OPHTHALMOLOGY
- KGMC/HMC

Objectives

- At the end of this session the 4th yr MBBS student should be able

- Enlist Different causes
- What are Clinical features
- What are Different Treatment options
- How Regurge test is performed

Learners competence level

- 4th year MBBS students of Khyber Girls Medical College

- Subject . ophthalmology

Competence level, Common competencies are.

- Knowledge.
- Skill.
- Professionalism.
- Personal grooming with leadership qualities.
- Community health.

PMDC 7 Stars Doctors, have the competencies;

- knowledge
- Skill
- Critical thinker
- Manager
- Researcher
- Lifelong learner
- Community health provider

Competencies selected

- Knowledge
- Skill

Cognitive Domain, different causes are

- Enlist the causes of watering in a small 6months baby
- Congenital NLD block
- Conjunctivitis
- Birth trauma
- Congenital glaucoma
- Foreign body
- Punctal atresia

- Watering
- Purulent discharge
- Sticky eye lids
- Swelling in the medial canthal area

Table of specifications. Cognitive Domain

CONTENTS	COGNITIVE LEVEL	TIME	MIT/TOOL	VENUE	ASSESSMENT	
ENLIST THE CAUSES OF EPIPHORA	C1	01	INTERACTVE LECTURE	LECT HALL/EYE WARD	OSPE	
DESCIBE CLINICAL FEATURE	C2	01	INTERACTVE LECTURE	LECT HALL/EYE WARD	OSPE	
WHAT ARE TREATMENT OPTIONS	C3	01	INTERACTVE LECTURE	LECT HALL/EYE WARD	OSPE	
					OSPE	

Psychomotor Skills, How regurge test performed

- Observe P1
- Assist P2
- Perform under supervision P3
- Perform independently P4

Table of Specifications. Psychomotor skills

CONTENTS	SKILL LEVEL	TIME	MIT/TOOL	VENUE	ASSESSMENT	
PERFOM REGURGE TEST	OBERVE P1	01	DIERCT PATIENT	EYE OPD	OSPE	
PERFOM REGURGE TEST	ASSIST P2	01	DIERCT PATIENT	EYE OPD	OSPE	
PERFOM REGURGE TEST	UNDER SUPERVISION P3	01	DIERCT PATIENT	EYE OPD	OSPE	
PERFOM REGURGE TEST	PERFORM INDEPENDENTLY P4	01	DIERCT PATIENT	EYE OPD	OSPE	