MATERIAL AND METHODS

Patients with complaints of watering and pus discharge and diagnosed as chronic dacryocystitis were admitted in M.L.B. Medical College Hospital and were investigated under the following headings.

Clinical evaluation:

History: In every case, detailed history of symptoms, duration and associated diseases of nose (just like DNS) and sinuses were taken.

Local examination:

Lacrimal excretory system, nose and sinuses in particular details were conducted. In all cases we examined the following points -

Examination of eye lids -

1) Inversion,
2) Eversion,
3) Lid laxity.

Lacrimal sac - External examination of sac -

a) Position of puncta
   - Upper,
   - Lower
b) Any discharge,
c) Swelling,
d) Fistula,
e) Skin colour.

Syringing of lacrimal sac for patency -
   a) Lower puncta,
   b) Upper puncta.

Regurgitation of saline -
   a) Same puncta,
   b) Upper puncta.

X-ray PNS (as and where needed).

Schirmer test (as and where needed).

Dacryocystogram (D.C.G.) (as and where needed).

**General Examination** -

   i) CVS
   ii) Respiratory system.

**Investigation** - Blood - BT, CT, Hb%, TLC, DLC.

Blood sugar - Fasting,
   - P.P.

Urine - Albumin,
   - Sugar.
Past History - (i) History of Hypertension,
(ii) History of Diabetes,
(iii) History of Bleeding tendency.

After seeing all the investigations and fitness of patients, patient is operated either by conventional D.C.R. method or D.C.R. Implants.

Operative Steps:

Anaesthesia - D.C.R. operation can be done under general anaesthesia and also local anaesthesia.

A cotton gauze well dipped with xylocaine and adrenaline is introduced into nose by nasal speculum. In such a way so that it may contact with the area of nasal mucosa which corresponds to the lacrimal fossa. The shrinkage and ischemia which follow this application, inhibit bleeding when mucosa is incised. The gauze piece is removed at appropriate stage of the DCR operation.

Local anaesthesia is achieved by subcutaneously injecting 2% xylocaine with adrenaline just medial to the medial canthus over the nose. 1 ml of xylocaine with adrenaline is injected in superior orbital notch region.

Dacryocystoringostomy -

1. A straight incision is made 8 mm medial to the inner canthus.
2. The anterior lacrimal crest is exposed and the superficial portion of the medial palpebral ligament is divided.

3. The periosseum is divided from the spine on the anterior lacrimal crest to the fundus of the sac and reflected forwards. The sac is reflected laterally from the lacrimal fossa.

4. The anterior lacrimal crest and the bone from the lacrimal fossa are removed.

5. A probe is introduced into the lacrimal sac through the lower canaliculus and the sac is incised vertically to create two flaps.

6. A vertical incision is made in the nasal mucosa to create anterior and posterior flaps.

7. The posterior flaps are sutured with 6.0 catgut sutures.

8. The anterior flaps are sutured.

9. The two heads of the orbiculosis muscle are opposed with 6.0 catgut and the skin incision is closed with interrupted 6.0 silk suture.

Conventional D.C.R. method is adopted upto the step of opening of lacrimal sac. After the exposure of lacrimal sac it is retracted laterally to expose lower part of lacrimal fossa. An ostium is created with the
OUT LINE OF LACRIMAL APPARATUS

EXPOSURE OF LACRIMAL SAC
ANTERIOR INCISION
LACRIMAL SAC

INCISIONS IN THE LACRIMAL SAC

INTRODUCER
INTRODUCER LOADED WITH IMPLANT

ANTERIOR INCISION
OSTIUM
POSTERIOR INCISION

ANTERIOR AND POSTERIOR INCISIONS IN SAC WALLS
POSITION OF IMPLANT AFTER INSERTION

FINAL POSITION OF IMPLANT INTO SAC
help of JENKIN's type mastoid gauge, in the lower part of lacrimal fossa. The gauge passes through lacrimal bone and nasal mucosa. The gauge points towards posterior, medial and lower directions.

A vertical incision around 3 mm long is made through the 2 mm incision is made in the postero-medial wall of the sacs just opposite the ostium.

Then a sterilized implant is loaded on the introducer and introduced through anterior opening of the lacrimal sac into the nasal cavity. It is placed in such a way that it points towards posterior, medial and lower directions similar to the direction of mastoid gauge. The wider portion (collar) of the implant lies in the cavity of the sac and the other end in the middle meatus of the nose.

Saline is injected through the funnel of implant and the patient is questioned for feeling of matter in the throat for confirmation of proper position of implant.

The sac and surgical field is irrigated with normal saline.

The wound is closed with 6.0 chronic catgut in layers and skin incision is sutured by 6.0 silk suture.

Syringing is performed immediately after closure of wound. A light dressing is done with Neosporin eye ointment on wound.
After D.C.R. with implant post-operatively prescribe -

1) Orally allowed after 2-3 hrs of operation.
2) Oral antibiotics,
3) Oral analgesics and anti-inflammatory drugs x 5 days,
4) Cap. Becosule x 5 days.

Daily locally apply Neosporin eye ointment on the wound and eye and next day syringing is done.

Patient get discharged after 5-6 days of operation.

Syringing is done daily and repeated once a week for 4-5 weeks.

AIMS OF STUDY:

1. As D.C.R. by conventional method gives failure, to see results with nasal intubation, whether they are better or not.

2. To see the mobility of patients to compare with conventional D.C.R.

3. Cosmetic usefulness of nasal implants.

4. Role of nasal implant method in cases where D.C.T. has already been done.
5. Usefulness of implants in deformed nasal bridge and senile atrophic mucosa.

6. Usefulness of implants in infancy.

7. Save valuable time of surgeons.

8. Less bleeding than conventional D.C.R.