

## **Intra operative Assessment of Repeat Dacryocystorhinostomy**

Dr Nelly Nazareth, Dr Sarita Gonsalves

*Corresponding Author: Dr Sarita Gonsalves*

### **I. Introduction**

Epiphora is the chief complaint in a large number of patients visiting our OPD . Although the surgery DCR is quite laborious and non rewarding as considered by many surgeons ,the symptoms of epiphora and chronic discharge is quite distressing to the patient. Chronic infection in the lacrimal sac or naso lacrimal duct leads to permanent obstruction of the lacrimal passage. External DCR is still considered to be the gold standard . Despite meticulous surgery failures are often met with. Various studies have stated various causes for failure of DCR. The purpose of our study was to assess the most common intra operative cause for a failed DCR.

### **II. Aim**

To find out intra operatively the most common cause of failure of previous DCR/DCT.

To find out the success rate of re DCR.

### **III. Exclusion Criteria**

- Patients with epiphora, chronic dacryocystitis with a history of under going DCR/DCT.
- Patients with positive syringing test showing mucoid regurgitation from the opposite punctum following previous DCR/DCT.
- Patients with acute dacryocystitis < 1 month duration.
- Patients with regurgitation from the same punctum or canalicular obstruction
- Patients with gross nasal pathology or acute upper respiratory tract infection.
- Patients with other causes of hyper lacrimation and epiphora .

### **IV. Materials and methods**

Prospective interventional study conducted at the department of ophthalmology between the year january 2008-december 2009. The patients were selected maintaining the inclusion and exclusion criteria. Written informed consent was obtained. Detailed history was taken and available previous records were checked. Complete ophthalmic examination was done. ENT consult was sought to rule out any nasal pathology. Investigations such as FBS, HIV, Hbs Ag were done. All surgeries were performed under local anaesthesia under the operating microscope. Prior to surgery nasal packing was done with a gauze soaked in 2% xylocaine with 1:2,00,000 adrenaline to reduce the risk of intra operative bleed. The skin was painted with povidone iodine . Local infiltration of 2% xylocaine with adrenaline was used in all cases. Medial to medial canthus 8 mm vertical incision was made. Orbicularis was separated and MPL if present was cut for better exposure. Lacrimal sac was identified and intactness was checked. The osteotomy was inspected for its presence or closure by fibrosis. Anastomosis if present was checked for its patency. Conventional external DCR was performed. Bowmans probe was inserted to check for common cannalicular obstruction. Anastomosis was made between the medial wall of the sac and nasal mucosa after enlarging / creating an osteotomy. The 2 were sutured with 6-0 vicryl . Skin was sutured with 6-0 ethilone . Syringing was performed on table and there after on 1, 7, 30 th post operative day and after 6 months. All patients received topical and systemic antibiotics post operatively. Sutures were removed on day 7.

### **V. Results**

8 patients with history of previous DCR/DCT were assessed intra operatively. Mean age was 50 years, average age was 35-65 years. 3 patients underwent DCR on the left side and 5 on the right side. Previous procedure was done 3 months to 3 years prior to present surgery. Recurrence of symptoms was < 3 months in 75% of the patients and > 3 months in 25% patients. p value was 0.289 which was significant. History of trauma was present in 1 (12.5%) cases. p value 0.034- not significant. Previous DCT was done in 3 patients (37.5%), DCR in 5 patients (62.5%) . Second procedure prior to the present was done in 1 (12.5%) of the patients. DCG was done in all patients. Sac was intact in 7 (87.5%) patients and 1 (12.5%) had anterior sac flap only . p value was 0.034- statistically significant. Osteotomy was present in 3 (37.5%) cases. Absent in 5 (62.5%) cases. p value was 0.727 although statistically was not significant clinically it was significant. Syringing after 3 months and 6 months was patent in all cases.

## **VI. Discussion**

The original external DCR was first described by Tote in 1904. DCR is the gold standard treatment for epiphora due to blockage beyond the common canaliculus. External DCR is an easy, cost effective procedure and if done properly is very effective in management of chronic dacryocystitis. Failure rate is reported to be 11-28%. Average being 9.4% in literature. Failure can be due to reduced osteotomy size<sup>2,3</sup>, granulation and fibrosis in anastomosis, common canalicular obstruction, defective identification and anastomosis, dacryoliths and sequestration in the sac, adherent septum or turbinate. In our study in a majority of the cases the lacrimal sac was intact and osteotomy was absent. Error in identification of the sac and technique of performing the surgery was found to be the most common cause for failure. Here we are of the opinion that usage of the operating microscope is a must for all sac surgeries. Proper identification of the anterior lacrimal crest, lacrimal sac, bigger osteotomy (10mm) in diameter is important. Pre op usage of nasal decongestants act as a great help. Never forget a pre operative ENT clearance. An intact sac and absent osteotomy were the most common intra operative findings noted.

## **References**

- [1]. Shee L.L., Shine C.S.K., Tseng J.H.S, Results of intra operative mitomycin C application in dacryocystorhinostomy., *British j. of ophth* 2000 ; 84 ; 903-6.
- [2]. Eric E., Resboli M., Manner G.E., Ultrasonic assessment of rhinostomy size following external DCR, *British j. ophth* 1998 ; 82 :786-9.
- [3]. Yeaths R.P., Neves R.B., Use of mitomycin C in repeat DCR, *Ophthalmic plastic reconstructive surgery* 1999 ; 15 : 19-22.
- [4]. Nawaz M. , Qaisar H., Sultan M., Sadiq M. , DCR a comparative study of results with and without silicon intubation in patients with chronic dacryocystitis., *profesional medicine journal*, march 2008 ; 15(1): 81-86.

Sarita Gonsalves "Intra operative Assessment of Repeat Dacryocystorhinostomy." IOSR Journal of Dental and Medical Sciences (IOSR-JDMS) , vol. 17, no. 2, 2018, pp. 53-54.