

Frequency of Chronic Dacryocystitis and Surgical Outcome of External dacryocystorhinostomy in and Around Moradabad.

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ABSTRACT

Background: External DCR is the standard treatment for NLDO with previous history of chronic dacryocystitis. Our current study presents series of patients with previous episodes of chronic dacryocystitis who underwent external dacryocystorhinostomy (DCR) for nasolacrimal duct obstruction (NLDO) and compare their pre-operative characteristics, post-operative outcome and surgical success rate. **Methods:** This hospital based prospective and interventional case series of 60 patients with chronic dacryocystitis due to nasolacrimal duct obstruction (NLDO) who were treated by means of external DCR was taken up for study. Surgery was done between June 2015 and December 2015 and the patients were followed up for next 6 months. **Results:** During the study period 60 patients with NLDO underwent external DCR of whom 38 (63.33%) were females and 22 (36.66%) were males. Mean age was 44. 93 ± 15 years. Chronic dacryocystitis due to NLDO was found in 50 patients (84%) while rest 10 (16%) had other reasons. An overall success rate of external DCR was 88.6% in patients with chronic dacryocystitis. Mean post operative follow up time was 180 days. **Conclusion:** No significant difference in the success rate of External DCR in patients with or without previous history of dacryocystitis.

Keywords: Chronic Dacryocystitis, External dacryocystorhinostomy, Nasolacrimal duct obstruction.

INTRODUCTION

External DCR is the standard treatment for NLDO with previous history of chronic dacryocystitis. The external approach is made through a skin incision near the lacrimal sac. Primary benefits of External DCR are that it is a faster and easier surgery to perform.

The surgical success rate^[1] was found to correlate with the duration of obstruction and patient's age. The success rate was lower when the obstruction lasted longer and the patient was younger. The success rate ranges between 80% and 96%. This variability in success rate is likely due to patient demographic and lack of standardized outcome measures.

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Only a few earlier studies examined the effect of past dacryocystitis on the success rate of external DCR^[2]. Their reported success rate ranges from 69% to 88%. According to our clinical experience, the

success rate of DCR for patients with or without previous episode of chronic or acute dacryocystitis should be similar.

Our current study presents series of patients with previous episodes of chronic dacryocystitis who underwent external dacryocystorhinostomy (DCR) for nasolacrimal duct obstruction (NLDO) and compare their pre-operative characteristics, post-operative outcome and surgical success rate^[1].

MATERIALS AND METHODS

After getting approval from the ethical committee, this hospital based prospective and interventional case series of 60 patients with chronic dacryocystitis due to nasolacrimal duct obstruction (NLDO) who were treated by means of external DCR was taken up for study. Surgery was done between June 2015 and December 2015 and the patients were followed up for next 6 months. All pre operative evaluations and operations were performed by an experienced surgeon.

Patients with chronic dacryocystitis were defined by appearance of epiphora and purulent discharge from the punctum. Only after resolution of the acute attack, an external DCR was done. In some cases a CT scan was performed. If the presenting complain

was epiphora, lacrimal syringing was done followed by external DCR in patients with NLDO.

The extracted data included patient's demographics, indications for surgery, background disease (systemic or ocular), and duration of epiphora, site of obstruction, previous external DCR, early and late post operative complications and surgical outcome.

Patients aged 16 years and above with complete NLDO on syringing were recruited. They underwent external DCR and had complete follow up for 6 months. Excluded patients were those who underwent endoscopic DCR, with functional obstruction, those aged less than 16 years and those with inadequate follow up.

Success was determined by post operative patency on syringing and resolution of epiphora, 6 months after surgery.

External DCR was performed under local anesthesia in filtrated in and around the lacrimal sac going down along the nasolacrimal duct. We used the standard curved incision 3 mm nasal to medial canthus, 3mm above the medial palpebral ligament, going down medial to angular vein along the orbital margin 4mm along medial wall of floor of orbit. A deep incision up to orbicularis is made, sac is dissected and separated from lacrimal fossa and an osteotomy of 1.5-2 × 1.5-2 cms was created. Nasal mucosa was opened to form anterior and posterior flaps. Anterior flap of lacrimal sac was stitched with anterior flap of nasal mucosa and posterior flap of lacrimal sac was sutured with the posterior flap of nasal mucosa in a similar fashion by means of 6-0 vicryl suture. All patients were treated post-operatively by Neosporin ointment (polymixin-B, neomycin sulphate) along the wound line and moxifloxacin eye drops 4 times daily for 7-10 days. If dacryocystitis was evident during the surgery (pus in lacrimal sac) treatment was with oral cefixime+ ornidazole 200 mg tablets which were given twice daily for 5 days with some anti-inflammatory agent for 7 days.

Statistical analysis was done using Excel and SPSS software.

RESULTS

During the study period 60 patients with NLDO underwent external DCR of whom 38 (63.33%) were females and 22 (36.66%) were males. Mean age was 44.93±15 years. Chronic dacryocystitis due to NLDO was found in 50 patients (84%) while rest 10 (16%) had other reasons.

An overall success rate of external DCR was 88.6% in patients with chronic dacryocystitis. Mean post operative follow up time was 180 days (6 months). Early post operative nasal bleeding was defined as bleeding occurring during 1st post operative day, which occurred in 5 patients (8.33%). It was mild and stopped spontaneously after few hours in all cases. After a minimal period of six months patency

on syringing and resolution of epiphora was documented in 50 patients with previous dacryocystitis.

DISCUSSION

Our comparison of patient's characteristics and surgical outcome results of External DCR in patients with NLDO with and without history of dacryocystitis, revealed no significant difference between the two.

Only a few earlier studies examined the effect of past dacryocystitis on the success rate of External DCR and reported them as being lower than in cases without history of dacryocystitis.

Badhuet al^[3] had follow up assessment of 662 patients with chronic dacryocystitis who underwent External DCR and included symptom evaluation and irrigation of lacrimal passage. Surgical success was defined by being asymptomatic and having patent lacrimal passage and it was achieved in 88.6% of their patients.

Yigiet al^[4] presented 55 patients with chronic dacryocystitis who underwent External DCR, successful outcome was defined as diminished epiphora or no observable reflux from the canaliculus during or after lacrimal irrigation. Success was achieved in 69.9% of their patients.

The patients of both studies were followed up to 1, 3, 6 months and 1 year after surgery.

Additional predictive factor for lower success rate are the duration of obstruction and age of the patient.^[5]

Erdolet al^[2] noted that lower success rate are common in younger patients compared to older ones, while early operation offers greater success.

Seideret al^[1] found that patients who had longer lasting symptoms of chronic dacryocystitis had lower success rate.

Main drawback of this study stems from the fact that information about the patient's disease was taken from their medical charts and the duration of epiphora was self-reported by the patients.

CONCLUSION

In conclusion, we found no significant difference in the success rate of External DCR in patients with or without previous history of dacryocystitis

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Mehrotra & Chauhan; Surgical Outcome of External dacryocystorhinostomy

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