The marvel of instant mucosal lining in dacryocystorhinostomy

We all agree that DCR is one of the commonest surgery performed by an Oculoplastic surgeon in their career. In the initial years of training one starts learning and doing this surgery with trepidation due to the fear of intra operative bleeding and this is what it is intimidating along with the key hole approach.

As one learns the importance of a good clinical evaluation especially syringing technique, ENT evaluation, imaging, nasal endoscopic evaluation and proper counselling the whole process goes into auto mode. Next in line is anaesthesia, sedation, regional block and nasal packing. Once this is taken care, the steps of surgery can be carefully carried out and an adequate bony flap is created which is the first key to the success of the surgery.

Creation of anterior and posterior lacrimal and nasal mucosal flaps is the next and cardinal key to the success of the surgery . Suturing these flaps under good illumination and magnification is not difficult - when one has harvested these flaps painstakingly it would be prudent to retain them rather than excise the posterior flaps. Suturing them or anastomosing them with these novel techniques like glue would be providing instant mucosal lining over the bare bone of the ostium giving a head start to its healing and long term patency.

If an endoscopic evaluation is done soon after surgery or in the early post-operative period the surgeon can appreciate the importance of the mucosal lining of the ostium rather than to have bare area of the bone which is likely to incite inflammation and granulation tissue formation leading to failure of the surgery . The need of good mucosal lining becomes more relevant when intubation is used .

Hence the importance of giving the instant mucosal lining creating both anterior and posterior flaps is manifold that it leaves very little scope to argue about increased operative time,^[1] uncontrolled bleeding etc.

Dr Kakizaki et al have described the three flap anastomosis with 100% anatomical and 94.3% functional results.^[2] Attempts have been made even with Endoscopic DCR.^[3] to carefully preserve the mucosal flaps and drape the bare bone with them. This again emphasises the importance of mucosal lining for good long term results.^[4,5] The authors themselves have reiterated this point in the current study .

Use of fibrin glue is a welcome but spillage and spread to the internal punctum and ostium is of concern as the authors have also expressed.^[6] Hence the amount of glue to be used and the nuances associated especially when there is bleeding as glue application becomes difficult would have to be explained in finer detail. The mean age group in this study is around 40 years and majority are women who are concerned about the scar externally – these would have been a better group for endoscopic surgery. Also one is not sure as to the reasons for the exclusion criteria indicated in this study.

The strength of this study is that all surgeries were done by the same surgeon. The importance which has been given to nasal endoscopic evaluation in the post operative period to assess the ostium status is truly commendable. This helps post operative care and to improve the success rates to a great extent.

I am sure that with routine use of the glue and fine tuning its application the authors would consider retaining the posterior flaps and apply glue to the same for quick fix mucosal lining.

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References:

- 1. Malhotra R, Wright M, Olver JM. A consideration of the time taken to do dacryo-cystorhinostomy (DCR) surgery. Eye 2003;17:691-6.
- Kakizaki H, Kitaguchi Y, Takahashi Y, Mupas-Uy J, Mito H. Prevention of re-obstruction in watery eye treatment: three-flap technique in external dacryocystorhinostomy. Graefes Arch Clin Exp Ophthalmol 2016;254:2455-60.
- Ceylan SM, Erdoğan C, Sozen T, Kanmaz MA, Disikirik I, Jafarov S, et al. The Fibrin Glue Application Enhances Surgical Success Rate in Endonasal Endoscopic Dacryocystorhinostomy with Lacrimal Sac Preservation. Ear Nose Throat J 2019;18:145561319882123. doi: 10.1177/0145561319882123. Epub ahead of print.
- Ali MJ, Psaltis AJ, Bassiouni A, Wormald PJ. Long-term outcomes in primary powered endoscopic dacryocystorhinostomy. Br J Ophthalmol 2014;98:1678-80.
- Ali MJ, Psaltis AJ, Wormald PJ. Dacryocystorhinostomy ostium: parameters to evaluate and DCR ostium scoring. Clin Ophthalmol 2014;9:2491-9.
- 6. Rizvi SA, Sabah M, Mehmood F, Maheshwari R, Alam MS. A glued technique of external dacryocystorhinostomy. Indian J Ophthalmol 2022;70:962-4.

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