Dacryoendoscopic Guided Canalicular and Nasolacrimal Duct Recanalizations

Dr. Mohammad Javed Ali, Dr. Milind Naik

Dacryoendoscopy is a procedure utilizing microendoscopic techniques to visualize the entire lacrimal system from the puncta to the inferior meatus.\(^1\)\(^9\) It is gaining firm ground and increasing popularity for expanding indications in lacrimal disorders thus having many diagnostic and therapeutic implications.\(^1\)\(^9\) It is most commonly done using a 0.6 mm endoscope which was adapted and partly modified from the original sialoendoscope. We describe our experience of canalicular and nasolacrimal duct recanalizations under dacryoendoscopic guidance.

MATERIALS AND METHODS
10 patients each of canalicular and partial nasolacrimal duct obstruction were included in the study. Canalicular block included mid and distal partial or complete blocks. Sislers trephination was used for canalicular recanalization. Dacryoendoscopy was done using 0.6 mm endoscope and this was used as a guide to assess recanalization at frequent intervals and modify the procedure or confirm complete recanalization based on endoscopic findings and guidance. Silicone intubation was done following the recanalization procedure. Tubes were removed at 3 months and a minimum of 6 months follow up following tube removal was included for final analysis.

RESULTS
All the patients were assessed at the last follow up. Anatomical success was defined as patent passages on irrigation and functional success was defined as absence of epiphora. 8 of the 10 patients of canalicular blocks and seven of the 10 patients for partial nasolacrimal duct block showed patency at 6 months follow up following tube removal. Of the 5 cases, all got re-occluded within 3 months. Of these 3 were partial and 2 complete obstruction as confirmed by dacryoendoscopy. No cases of false passage were noted.
DISCUSSION

Dacryoendoscopy is a procedure utilizing microendoscopic techniques to visualize the entire lacrimal system from the puncta to the inferior meatus.\textsuperscript{1-9} It is gaining firm ground and increasing popularity for expanding indications in lacrimal disorders thus having many diagnostic and therapeutic implications.\textsuperscript{1-9} It is most commonly done using a 0.6 mm endoscope which was adapted and partly modified from the original sialoendoscope. The indications for which dacryoendoscopy is gaining popularity are as follows but by no means exhaustive or complete.

1. Acquired internal punctal stenosis
2. Closer view of incomplete punctal canalizations (IPC)
3. Canalicular explorations following IPC membranotomy
4. Canalicular stenosis
5. Patchy or multifocal canalicular strictures
6. Partial and complete canalicular obstruction
7. Dacryoendoscopic guided canalicular trephination
8. Laser canaliculoplasty
9. Microdrill canaliculoplasty
10. Balloon canaliculoplasty
11. Canalicular recanalizations
12. Assessment of the mucosal folds across the lacrimal system
13. Lacrimal sac inflammations
14. Focal mucosal elevations
15. Residual lacrimal sac septum
16. Lacrimal sac diverticulosis
17. Chronic dacryocystitis to assess intrasac synechiae
18. Lacrimal sac entrapments following bony trauma
19. Dacyroceles
20. Lacrimal sac tumors
21. Assessment of unusual types of sac discharges
22. Assessment of foreign bodies and migrated punctal plugs
23. Dacyrolithiasis: locations and assessments
24. Assessment of fistulas
25. Etiopathogenesis of congenital nasolacrimal duct obstructions
26. Functional nasolacrimal duct obstructions
27. Dacryoendoscopic guided probing
28. Assessment of false passage
29. Buried probes
30. Assessment of etiopathogenesis of primary acquired nasolacrimal duct obstruction

Dacryoendoscopic guided recanalization of lacrimal passages is a useful and effective technique to perform complete recanalization and prevent false passages. The biggest advantage that this guidance gives is in terms of visualization of the lacrimal passages rather then blind interventions. The enhanced scope of visualization of different pathologies as well as postoperative monitoring helps in better understanding of the disorders which will ultimately translate to better patient managements in future.

REFERENCES


