

Factors affecting success in endoscopic dacryocystorhinostomy

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Abstract:

This thesis is based on a large prospective, observational study on the various factors affecting the success of endoscopic dacryocystorhinostomy (endo DCR). There are 3 components to this study. Canalicular closure has long been thought to be a major cause for early failure and the reason behind routine silicone intubation. The first component investigated the incidence of canalicular closure in patient who underwent endo DCR without silicone intubation. In our prospective series of non-intubation for primary nasolacrimal duct obstruction, there were no cases of canalicular closure or stenosis at 12 months. Ostium closure is another major cause for failure and the degree of ostium shrinkage has been inconclusive in the literature. The second component investigated the degree of ostium shrinkage following endo DCR and if ostium shrinkage affects success of endo DCR. Following endoscopic DCR, the final ostium size on average is 35% of the original at 12 months post-operation. The majority of the ostium shrinkage occurs within 4 weeks post-operatively with a lesser degree of shrinkage between 1-12 months post-operatively. We found that ostium size was not predictive of overall surgical outcome. Finally while endo DCR has traditionally been performed under general anesthetics, there are various perioperative and cost benefits of a local anesthetic approach. We investigated the tolerability of endo DCR under local anesthesia. We found 98% of patients are happy to have powered endoscopic DCR performed again under assisted local anaesthetic.

Declaration

I am aware of no conflicts of interest, of any nature, pertaining to this manuscript. The design of the study and its execution, analysis, interpretation, and publication were carried out independently by myself (WengOnn Chan) and those acknowledged within this manuscript.

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Abbreviations

aLa: Assisted local anaesthetic

ANOVA: Analysis of variance

cf.: Compared to

CI: Confidence interval

DCG: Dacryocystogram

DCR: Dacryocystorhinostomy

DSG: Lacrimal scintillography

Endo DCR: endoscopic Dacryocystorhinostomy

MMC: Mitomycin C

n/a: Not applicable

NLDO: Naso-lacrimal duct obstruction

PANDO: Primary acquired naso-lacrimal duct obstruction

PEDCR: Powered endoscopic DCR

VAS: Visual analogue scale