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RESULTS OF ENDOSCOPIC ENDONASAL DACRYOCYSTORHINOSTOMY

Salim Yüce^a, Ali Akal^b, Mansur Doğan^a, İsmail Önder Uysal^a, and Suphi Müderris^c

^aAssistant Professor, Department of Otolaryngology, Faculty of Medicine, Cumhuriyet University, Sivas, Turkey

^bAssistant Professor, Department of Ophthalmology, Faculty of Medicine, Harran University, Şanlıurfa, Turkey

^cProfessor, Department of Otolaryngology, Faculty of Medicine, Cumhuriyet University, Sivas, Turkey

Introduction

The most important part of the lacrimal drainage system obstruction is continuous watery eyes and sometimes attacks of acute swelling of the sac, chronic dacryocystitis manifested by redness. In these cases, treatment is surgical procedures. external approach dacryocystorhinostomy (DCR) was used until recently the main method in the treatment of in nasolacrimal canal (NC) obstructions, but intranasal DCR described in 1893 by Caldwell (1) is often used in the nowadays(2).

The first clinical trials in the endonasal endoscopic DCR that was first shown by Rice in a cadaveric study in 1988 was done by Meiring McDonogh in 1989 and following it was used for clinical practice by many surgeons (3,4).

In this study we we discussed the advantages and disadvantages of Endonasal DCR offering cases performed in our clinic since the beginning of 2006.

Material method

28 case studies were included in the study that was applied Endonasal Endoscopic DCR between 2006 and 2010 in collaboration with Otorhinolaryngology and Ophthalmology clinics of Sivas State Hospital,. 18 patients (64%), were applied right Endonasal Endoscopic DCR and 10 patients (36%) were applied left Endonasal Endoscopic DCR.

Of the 28 individuals, minimum age was 27 and maximum age was 69, the mean age was 43.85 ± 10.33 . 2 of (7.15%) these individuals were male and 26 was (92.85%) female patient. In our patients the mean follow-up period of patients were 6–48 months 2.26 ± 0.92 years and silicone tubes were maintained 6 months.

Pressing on the bladder of patients diagnosed with pre-operative discharge of puspuncta, nasolacrimal canal (NC), irrigation of the nose and the transition has been increasingly associated with negative fluorescein test. Congestion levels have been established with the pouch by pulling X-ray opaque material. Level has not been included in the study

Address for correspondence: Salim Yüce, Cumhuriyet Üniversitesi Tıp Fakültesi, Sivas, Turkey. Tel: +90 346 258 00 00-0385 Fax: +90 346 258 13 00, saliyecekbb@hotmail.com.

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canalicular obstructions; sac or pouch in the later (intrasakal-postsakal) and cases of obstruction were included.

All patients were examined preoperatively and intranasal endoscopic septum deviation, chronic sinusitis identified associated pathologies, such as those applied first and after treatment procedures for these pathologies Endoscopic endonasal DCR was performed.

Operative technic

Local anesthesia was used in all cases. Following premedication for anesthesia, lidocaine-epinephrine infiltration after nasal administration of topical anesthesia pantokain made.

At operation, 4 mm. 30° Hopkins rigid endoscope was used in order to find and the lacrimal sac, frontal projection of maxillary bone and the middle turbinate anterior adhesive point used as an anatomical landmark. Sac mucosal flap is created by putting forward line after the maxillary anterior bone window with the help of exposition was for the tour. the edges of the window is extended with Kerrison punch. Then the medial exposition of the duct is provided.

Bowman lacrimal probe is inserted into the lower canaliculus lacrimal sac and incision was performed by tenting the sac surrounding tissues and the lacrimal sac mucosa removed from the surrounding tissues with the help of forceps. Then, the upper and lower canaliculus passed silastic tubes connected to each other inside the nose. Placed loosely into the nose of the 12 patients who had bleeding a day after the bumper removed, while other patients suggested that topical antibiotic ointment and saline lavage. In all patients the operation was completed smoothly. All patients were discharged the same day. The postoperative controls of patients was done in the 10th day of operation, in order to suppress the development of granulation tissue nasal steroid spray them started to the patients and is proposed to use at least 2 months. Anyways, consisting of postoperative granulation tissue around the tube is cleared by periodic endoscopic examinations.

Results

In all of 28 cases the tube was removed. In 1 of these cases complaints continued. Other complaints of epiphora resolved in all patients. the success of the operation was identified by removal of subjective Irrigation problems of patients, determination of liquid transition to the nose and positive fluorescein test. When the preoperative and postoperative results were compared the difference is statistically significant. ($\chi^2 = 25.03$ $P = 0.001$, $P < 0.05$)

Discussion

Recent studies have emphasized the value of endoscopic endonasal DCR technique at nasolacrimal duct obstruction. the main source of excellent results reported are the significant advances in technic and instruments and better understanding of endoscopic surgical technique, of the anatomy (5). Absence of skin incision and scar, the protection of orbicularis oculi muscle pump mechanism, short operation time and the opportunity to reach the nasal cavity or paranasal sinus anomalies at the same time are the advantages of endoscopic DCR compared with external DCR (6,7)

The success rate in Endoscopic endonasal DCR is between 94.7% to 81.2% in different publications (8,9,10,11). These results are comparable with success rates of 85–97% reported external DCR (12). On the other hand, endoscopic endonasal DCR has some advantages compared with conventional external DCR. First of all, incision on the skin is prevented because external scarring is not made. by this method the sustainability of

lacrimal pump mechanism is provided because Damage to the medial canthal formations is not given. The operative, early postoperative and late morbidity is less likely to happen. With the monitoring of Intranasal anatomy during surgery many additional pathologies can be identified and correcting is ensured (9,10).

In our study, success rate is 96% considering 27 patients completely recovered from their complaints, Pathology in our failed case stems mainly the upper and lower puncta punktums expansion caused by orifices. due to compression of the silicone tube extreme ends of the nose.

Conclusion

The edges of silicone tubes should not be connected very tight. This point is very important and should be paid particular attention. In addition, approaches for postoperative patients (frequent follow-up, possible use of nasal steroids and frequent cleaning of the granulation tissue lavage) also increase the success of therapy and at least is as important as the operation itself.

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