INTRODUCTION

Epiphora is an annoying symptom and usually reduces the quality of life. It is caused by a tear overproduction or lacrimal excretion dysfunction, and the latter can be further divided into anatomical obstruction and functional obstruction. The term “functional nasolacrimal duct obstruction” has been used to describe patients with epiphora with evidence of abnormal tear drainage, but where the nasolacrimal duct is partially or completely patent to irritation at supraphysiological pressures.

Various treatment modalities have been attempted to treat functional nasolacrimal duct obstruction (NLDO). Among these modalities, simple nasolacrimal duct intubation has been used as a standard treatment modality with success rates ranging from 47% to 79%, because it is easy to perform and gives minimal discomfort and pain to the patient. Recently, dacryocystorhinostomy (DCR) has been suggested for the treatment of functional NLDO with success rates of 50–94%. Some authors have advocated that epiphora caused by functional NLDO should be primarily managed with a DCR, because its success rate is higher than that of silicone intubation.

Therefore, in this study, we aimed to evaluate the surgical outcome of endoscopic DCR in functional NLDO and to compare its outcome with that of anatomical NLDO.

METHODS AND MATERIALS

Twenty-eight patients (36 eyes) with functional NLDO and 60 patients (82 eyes) with anatomical NLDO who underwent EEDCR between January 2008 and March 2014 were enrolled in this study. All patients were confirmed with a history of epiphora, punctal irrigation, dacycystography and/or dacryoscintigraphy and were divided into anatomical and functional NLDO based on these diagnostic test results. All patients were operated by one surgeon. Surgical outcome was evaluated postoperatively by subjective improvement of epiphora and patent rhinostomy opening on nasal endoscopic examination.

RESULTS

Mean follow-up in functional and anatomical NLDO groups was 7.0 and 8.7 months, respectively. And there were no significant differences in age or sex distribution between the groups (p > 0.05) (Table 1).

Overall objective and subjective outcomes of endoscopic DCR in functional NLDO were 97.2% and 94.4%, respectively and were not significantly different from those of anatomical NLDO (90.2% and 95.1%, respectively; p = 0.20) (Table 2 and 3).

Resolution of epiphora was complete in 16 eyes (44.4%) and partial in 18 eyes (50.0%) in patients with functional NLDO.

Complete and partial resolution rates of EEDCR in anatomical lacrimal sac level obstruction were 57.3% and 37.8% and were similar to those in functional NLDO (44.4% and 50.0%, respectively, p = 0.56).

CONCLUSIONS

Our results demonstrated that endoscopic DCR could provide satisfactory outcome in treating functional NLDO although partial resolution of epiphora was more prevalent after surgery.

REFERENCES