The Effect of Caudal Septoplasty on Nasal Angle Parameter

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ABSTRACT

Severe caudal septal deflection has always been challenging for surgeons. In this study, we tried to evaluate deformation of the nose after caudal septoplasty via measuring several nasal angle parameters.

The nasal tip angle, the columellofacial angle, the nasolabial angle, and the nasofrontal angle were analyzed between the pre-operation and the post-operation 6 months using lateral facial photographs. And subjective and objective nasal obstruction were examined.

As results, all nasal angle parameters showed no significant differences between pre- and post-operation. The subjective and objective nasal obstruction were significantly improved after the surgery.

Through these findings, we confirmed that caudal septoplasty, which breaks the L-strut structure, didn’t cause any external deformities. Therefore, these results validate effectiveness and safety of caudal septoplasty.

INTRODUCTION

Since Metzenbaum was the first to specifically address the difficulty in treating anterior septal deformities, techniques such as suture, swinging door, septal batten, ethmoid bone sandwich graft, tongue-in-groove, and extracorporeal septal deviation have been used in managing caudal septal deviation. This broad range of approaches illustrates the difficulty of treating caudal septal deviation. Many surgeons are afraid of correcting the caudal septum, because of the difficulties in surgical techniques and the fear for the development of external deformities after the surgery. In this study, we tried to evaluate deformation of the nose after caudal septoplasty via measuring several nasal angle parameters.

METHODS AND MATERIALS

Patients

Between March 2010 and Oct 2012, among the patients who visited the Department of Otorhinolaryngology at Gangnam Severance Hospital for nasal obstruction as chief complaint, the patients underwent caudal septoplasty were included. All surgical procedures and documents of the intraoperative findings were performed by a senior faculty (Dr. K.-S. Kim).

Surgical procedures

Making a hemitransfixion incision, bilateral mucoperichondrial flap was elevated. The central portion of the septal cartilage and bone was excised, leaving an L-strut of dorsal and caudal cartilaginous septum at least 1.5 cm long.

RESULTS

69 patients were enrolled. Among them, 67 patients presented for primary septoplasty and 2 presented for revision surgery. Placement of a batten graft using autologous septal cartilage was performed in 7 patients and always in a unilateral manner.

CONCLUSIONS

Through these findings, we confirmed that caudal septoplasty, which breaks the L-strut structure, didn’t cause any external deformities. Therefore, these results validate effectiveness and safety of caudal septoplasty.

REFERENCES