The Caudal Septum Angle of Deflection: An Objective Analysis for Caudal Septum Deviation

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ABSTRACT

OBJECTIVE: To describe an objective technique for the evaluation of caudal septum deviation (CSD). To evaluate the effectiveness of an open septorhinoplasty technique for treatment of CSD.

STUDY DESIGN: Retrospective review of septorhinoplasty cases involving caudal septum deviation. All patients had preoperative and postoperative photographs and measurements of the caudal septum taken with an external approach. Analysis of the caudal septum angle of deflection (CSAD) was performed for all patients. The CSAD was measured at least four months postoperatively.

RESULTS: Seventeen patients had significant caudal septum deviation and were included in the study. All patients had subjective improvement in their nasal airway obstruction. There were no immediate or long term complications. Seventeen patients had objective improvement in their nasal airway obstruction. The mean change in the CSAD was 22 degrees (p < .05).

METHODS AND MATERIALS

Patients were selected from a prospective patient database maintained by the senior author (ML) over a four year period. All patients with identified caudal septum deviation were included in the study. All procedures were performed in an outpatient, same day surgery setting. Preoperative and postoperative photographs were analyzed. Minimum time to postoperative patient documentation was four months. All patients signed informed consents for their images to be analyzed. The measurement of the caudal septum angle of deflection (CSAD) requires a standard basal view of the nose. A vertical line through the midline of the nose is made in a perpendicular fashion to the nasal spine. This line is extended upwards to meet the supratip, establishing the Caudal Septum Angle of Deflection (Fig. 1). A second line extending from the supratip to horizontal line through the base of the nose establishes the Caudal Septum Angle of Deflection (CSAD) (Fig. 2).

CONCLUSION: We describe a method to objectively analyze caudal septum deviations in septorhinoplasty candidates. An external approach using nasal base reconstruction techniques results in an increased understanding of nasal airway obstruction and subsequent nasal airway patency.

ACKNOWLEDGEMENT

We would like to thank Robert Shelley, Medical Illustrator, for his assistance with this paper. Dr. Madrid and Dr. Lopez had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis. There were no financial or competing interests.

REFERENCES


CONCLUSIONS

The caudal septum angle of deflection (CSAD) provides a standardized, objective evaluation tool for rhinoplasty surgeons in determining successful outcomes. We also describe our result in an external approach to caudal septum deviation. The external approach allows for optimal functional and cosmetic success in treating a caudal septum deviation.