ABSTRACT

Objectives: To compare perceived nasal symmetry outcomes in patients who have undergone endonasal primary cleft rhinoplasty with placement of zero, one, or two suspension sutures to reposition the lower lateral cartilage.

Methods: The charts of 20 patients with unilateral cleft lip with or without cleft palate were reviewed for subject inclusion based on cleft-columellar angle, and an electronic survey was created to assess perceived nasal symmetry using a modified Asher-McDade aesthetic index. Five pediatric facial plastic surgeons, six otolaryngology residents, and seven medical students were surveyed, representing variable levels of surgical experience.

Results: Of the 20 patients who underwent primary cleft rhinoplasty, 15 had complete or wide incomplete cleft lip (as defined as a cleft-columellar angle >40 degrees), and 5 had incomplete cleft lip. In both categories, double suture placement appeared to create consistently superior aesthetic outcomes compared to placement of one suture or sutureless cartilage repositioning. The average aesthetic score also increased with level of rater experience.

Discussion: Placement of two suspension sutures produced the best aesthetic outcomes in patients with complete or wide incomplete unilateral cleft lip. Aesthetic scores in the two-suture group were similar to those seen following repairs of more minor nasal deformities associated with normal, unilateral incomplete clefts. Even though the two suture technique differs only in the elevation of the dome of the lower lateral cartilage, raters of all experiences consistently gave better scores of alar base width as well as symmetry, form, and nostril height.

CONCLUSION

Using two lower lateral cartilage suspension sutures appears to improve nasal aesthetic outcomes following primary cleft rhinoplasty in patients with unilateral complete and wide incomplete cleft lip.

REFERENCES


FIGURE 2: A summary of nasal landmarks examined for this study.

TABLES I and II: Composite ratings of nasal aesthetics for unilateral complete / wide incomplete cleft lip and unilateral incomplete cleft lip.

FIGURE 3: Examples of nasal appearance after placement of zero, one, or two suspension sutures during primary cleft rhinoplasty in three children with complete / wide incomplete right unilateral cleft lip.