

Craniofacial Practice Patterns In Secondary Cleft Rhinoplasty

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Background

Patients with cleft lip often undergo a primary rhinoplasty at the time of cleft lip repair. Further surgical correction with secondary cleft rhinoplasty (SCR) can sometimes improve both form and function. While there is a general consensus regarding the technical details of primary rhinoplasty, the timing and technique of SCR remains variable. The purpose of this study is to better elucidate current practice patterns and trends for how SCR is performed in the United States.

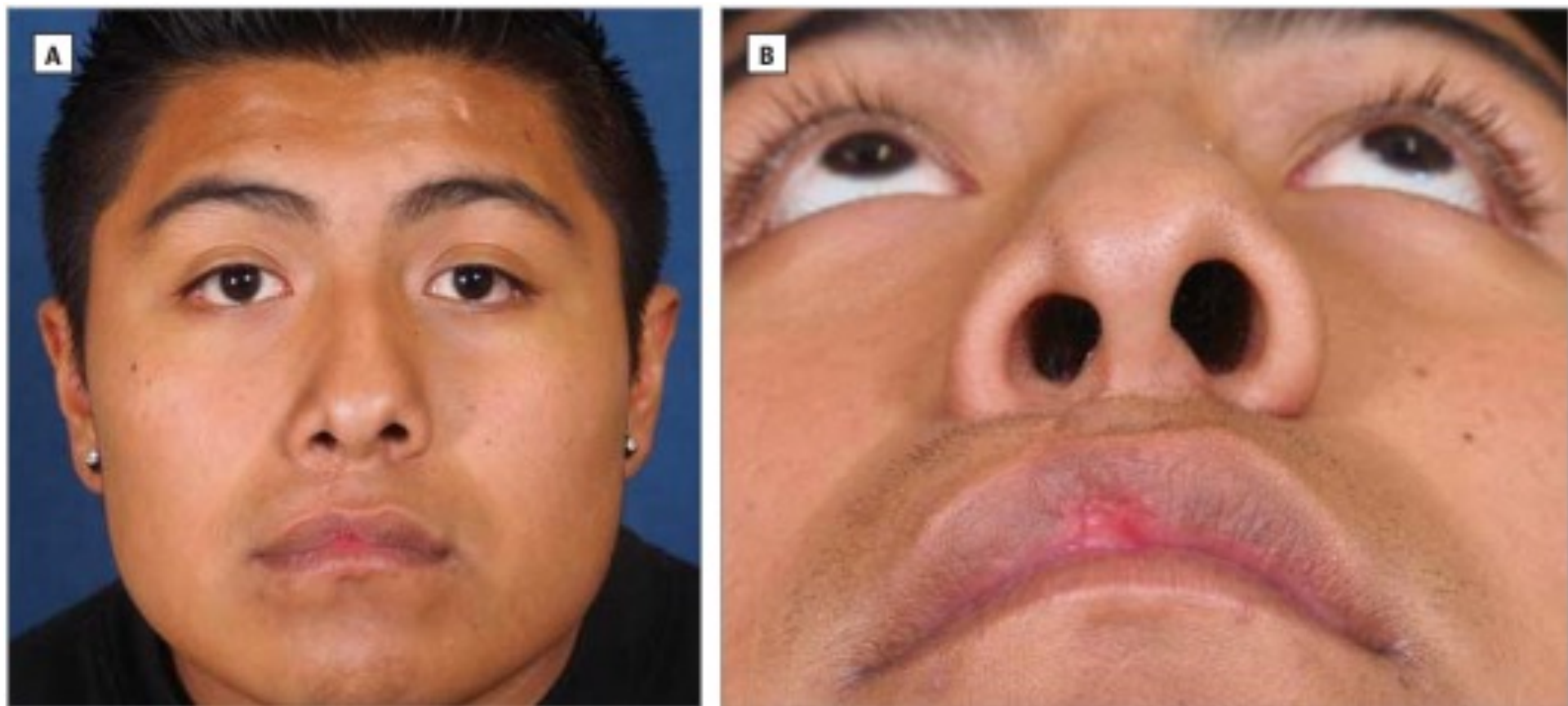


Methods

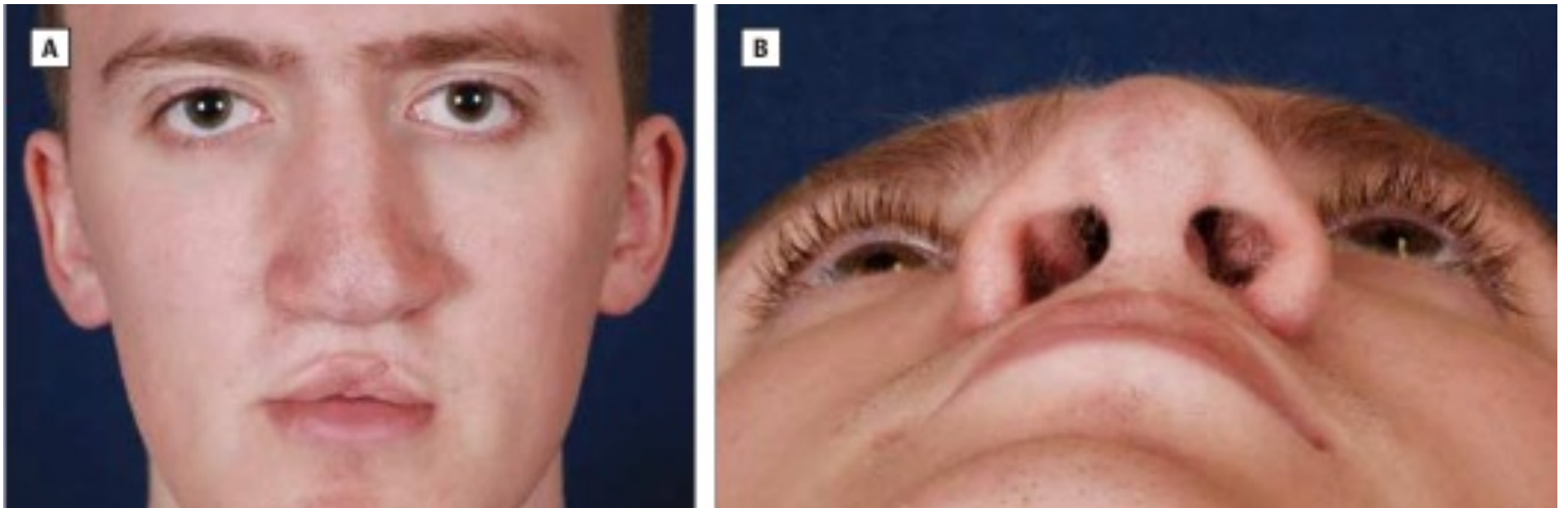
We administered a survey to craniofacial surgeons affiliated with 193 cleft lip and palate care teams approved by the American Cleft Palate Craniofacial Association (ACPA). Surveys were sent out to cleft team coordinators to be disseminated to their respective craniofacial surgeons.

Table 1. Definitive vs Intermediate Rhinoplasty

	Intermediate	Definitive
Prevalence	76.4%	98.1%
Earliest Age	5 (41.2%)	16 (55.8%)
Open Approach- Unilateral	65.3%	98.1%
Open Approach- Bilateral	73.5%	96.3%



Unilateral Cleft Lip Nasal Deformity



Bilateral Cleft Lip Nasal Deformity

Results

We received responses from 40 ACPA-approved teams for a response rate of 20.7%, with 55 craniofacial surgeons completing the survey. Data were divided between intermediate cleft rhinoplasty (3-14 years) and definitive cleft rhinoplasty (>15 years).

Intermediate cleft rhinoplasty: 76.4% of respondents perform intermediate cleft rhinoplasties. Among those who perform intermediate cleft rhinoplasty, many surgeons would first consider performing it at 5 years of age (41.2%). 65.3% of surgeons reported using an open (external) approach for unilateral cleft cases, and 73.5% of surgeons reported using an open approach for bilateral cleft cases. 61.2% of surgeons performing intermediate procedures utilize autologous cartilage grafts in up to a quarter of their cases. Additionally, surgeons reported utilizing cadaveric cartilages in 38.1% of their cases and absorbable plates in 37.5% of cases.

Definitive cleft rhinoplasty: 98.1% of respondents perform definitive cleft rhinoplasties. Most surgeons reported that they would first consider performing a definitive case at 16 years of age (55.8%). 98.1% of surgeons reported using an open (external) approach for unilateral cleft cases, and 96.3% of surgeons reported using an open approach for bilateral cleft cases. A majority of surgeons (64.8%) utilize autologous cartilage grafts in more than 75% of their cases. 55.6% of surgeons reported using cadaveric cartilage and 27.5% of surgeons utilized absorbable plates.

Conclusions

The present study highlights major trends among craniofacial surgeons from ACPA-approved teams. Differences in technique for intermediate and definitive cleft rhinoplasty among cleft surgeons have not previously been evaluated across cleft teams. The inconsistencies in secondary cleft rhinoplasty represents the need for more robust outcomes data for specific timing, techniques, and materials utilized to help better inform best practices among surgeons.