



NEW YORK REGIONAL SOCIETY OF PLASTIC SURGEONS

2018 RESIDENTS' NIGHT ABSTRACT

Abstract Submission: K1 (Group 1)

Title: *Refinements in secondary cleft lip and nose reconstruction. The simultaneous use of multiple grafts to reduce reoperation rate and restore normal anatomical features.*

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PURPOSE: Secondary cleft lip and nose correction is often challenging because of the long-standing and severe associated deformities. Hypoplasia of the maxilla and the pyriform rim, slanting and deformity of the affected hypoplastic lower lateral cartilage, anomalous insertion of the surrounding muscles and severe soft tissues deficiencies are the major stigmata to be corrected, if possible, in a single surgical intervention. The objective of our study is to present our anatomically-oriented approach in secondary cleft lip and nose reconstruction with the simultaneous use of multiple grafts to improve outcomes, reducing the reoperation rate.

METHODS: The technique has been used in 17 patients from 2013 to 2015. Mean age was 16 and male to female ratio was 9:8. Informed consent was obtained before surgery. We repaired the cleft nose first and then the lip to avoid the "locking down" effect of the repaired lip. Dermal grafts (from the bone graft incision), fat grafts, cartilage grafts (chondral, costal and/or septal) and bone grafts were all used in one stage to correct the deficiency of the pyriform rim, the affected alar cartilage, the upper lip and the surrounding soft tissues. The grafts were inserted in separate layers to facilitate graft take. Antibiotics were given in the perioperative period. During follow-up, symmetry, volume and projection were measured.

RESULTS: Mean follow up was 12 months. Results of follow up showed all patients had adequate symmetry and appropriate volume augmentation after this post-operative period. No significant graft resorption was noticed. Nose projection and alar cartilage position appeared to be reinstated. Bone augmentation at the pyriform rim appeared to give a solid scaffold to support the affected ala position and the tip support. Augmented soft tissues with fat and dermal grafts were stable over time. Lip length was appropriate in all cases and did not require further revisions. No complications were documented.

CONCLUSIONS: Adequate use of multiple grafts in secondary cleft lip and nose surgery can improve outcomes and reduce reoperation rate. Performing the cleft-rhinoplasty first and giving support to the deficient alar base prevents recurrence of the nose anomaly and allows adequate lengthening of the reconstructed lip. Augmenting the upper lip with grafts also gives reliable tissue to adequate lengthening of the deficient soft tissues.