Combined use of crushed cartilage and fibrin sealant for radix augmentation in Asian rhinoplasty.

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Abstract:

BACKGROUND: Crushed cartilage grafts are used to conceal irregularities and achieve a smoother nasal surface. They can potentially be stabilized by a fibrin sealant acting as a carrier. The primary purpose of this study was to assess the clinical outcome of crushed cartilage-fibrin sealant combination grafts for radix augmentation performed in Asian patients.

METHODS: This study included 51 patients (38 men and 13 women) who underwent rhinoplasty with radix augmentation using crushed cartilage grafts. The malleable construct used for radix augmentation contained autologous crushed cartilage grafts stabilized with a fibrin sealant. Preoperative and postoperative photographs were reviewed for objective and subjective assessment of aesthetic outcomes. The mean follow-up period was 18.5 months (range, 12 to 25 months).

RESULTS: Preoperative and postoperative objective measurements indicated that the mean increment of the radix projection was 28.5 +/- 7.9 percent and that of the nasofrontal angle was 11.5 +/- 3.8 degrees. Most patients showed prominent radix augmentation and good cosmetic results. Postoperative aesthetic outcomes were graded as excellent in 41.2 percent of cases, good in 37.3 percent, fair in 15.7 percent, and unchanged/poor in 5.9 percent. Complications included one case (2.0 percent) of partial graft resorption and two cases (3.9 percent) of graft visibility.

CONCLUSIONS: The results show that the use of a crushed cartilage-fibrin sealant graft is a reliable

and effective technique of stabilizing grafts for radix augmentation in Asian patients.

CLINICAL QUESTION/LEVEL OF EVIDENCE: Therapeutic, IV.