

“Injection” Of Compressed Diced Cartilage In The Correction Of Secondary And Primary Rhinoplasty: A New Technique

O. Onur Erol, MD

Abstract

Background: There were instances to fill small or large pockets with diced cartilage in nose, without utilization of wrapping materials. For this purpose, the commercial 1cc syringes were used. The obtained results were partial and incomplete. For better and improved results, I designed new syringes, two different sizes, which compress the diced cartilage for injection. These syringes inject the diced cartilages as conglutinate mass simulating carved costal cartilage.

Material And Method: From April 2006 to December 2011, this technique was applied to 655 patients: 387 secondary rhinoplasty patients, 222 primary rhinoplasty patients, and 42 cleft lip patients. In primary closed rhinoplasty, this technique was used to augment the tip and columella through upper labial sulcus. In secondary rhinoplasty -where a closed pocket could be developed, the diced cartilage was injected on the dorsum, lateral wall, and columella and to tip.

Technique: The Author designed stainless steel cartilage syringes at two different sizes: One thinner 0.2x12cm and the other larger 0.5x12cm in size. Diced cartilage of 0.5mm in size is filled into the top of the syringe through a small funnel. First, the pocket, as a tunnel, is prepared. Then the syringe is introduced up to the end of the pocket. While pulling back the syringe, the diced cartilage is injected with full force to fill equally all areas in the pre-prepared pocket on the dorsum, columella or tip.

Results: With follow up 1 to 5 years, In 621 patients, the take of cartilage graft was complete and smooth surface obtained gave them a natural look. The patient and surgeon satisfaction was gratifying. In only 29 patients there was incomplete partial resorption of cartilage. The correction was done with touch up surgery by reinjection a small amount of diced cartilage. No total or subtotal resorption is occurred.

Discussion And Conclusion: Compressed diced cartilages fill the pre-prepared pouch equally. The injection takes only few minutes. Comparing with diced cartilage wrapped with Surgicel or fascia, the amount of injected cartilage graft is predictable since consisted purely by cartilage. The injected diced cartilage since is compressed and becomes conglutinated mass resembles to chip wood and simulate carved cartilage but malleable one.