

Buccal Fat Augmentation During Facelift Using A Transoral Approach: Patient Selection and Surgical Technique

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Introduction: In patients with significant loss of the buccal fat pad, especially in the presence of strong malar projection, aging takes on an almost “skeletal” quality. In such patients, the loss of fat between the highlight areas of the malar and gonial regions may be better treated by injections directly into the buccal fat pad. Herein, we describe the methods and results of transoral buccal fat augmentation during facelift surgery.

Methods: Fat is harvested using disposable Caraway harvest cannula; processed with a bi-laminar filtration system and injected with disposable 18 gauge cannula. Intravenous clindamycin is given 1 hour before surgery and the intraoral mucosa at the site of injection is re-prepped with betadine. The upper lip is retracted and approximately 1-1.5 cm above and medial to the Stensen’s duct, the injection cannula is threaded carefully through the mucosa and guided by palpation/ultrasound into the buccal fat pad. The cannula is then moved radially and clockwise from 12:00 to 6:00 and counterclockwise from 12:00 to 6:00 filling the buccal space with 2-5 ml of fat, depending on physical findings.

Results: As part of a prospective IRB study on fat grafting, 8 female patients aged 52 to 78 (mean=64) underwent buccal fat injection using the transoral approach (total injection = 4ml to 10ml). No intraoperative or perioperative complications of nerve injury or infections occurred. Based on physical findings, patients had anywhere from a 20% to 80% improvement in buccal fat fullness at a mean follow up of at eighteen months. Aesthetic improvement was observed in all patients. A fresh cadaver dissection was performed to demonstrate the relationship between buccal fat pad to Stensen’s duct, the marginal mandibular nerve and to map out the anatomy defining the buccal fat pad.

Conclusions: Buccal fat injection is a powerful technique that restores the deep fat compartment between the zygoma and mandible, anterior to the masseter. Loss of subcutaneous fat is variable and in part based on the skeletal anatomy, patient age, and facial muscle activity. Restoration of the buccal fat pad volume can help reestablish harmony and balance to the face.