Managing the Buccal Fat Pad

The author performs buccal fat pad excision to improve facial contour in some patients with buccal lipodystrophy and to treat buccal fat pad pseudoherniation. He recommends an intraoral approach, taking care not to pull on the fat pad and resecting only that which protrudes easily with gentle pressure. (Aesthetic Surg J 2006;26:330-336.)

Adults with a capacious midface who desire refinement, sculpting, or enhancement of their skeletal features, and reduction of facial fullness by diminishing midface volume, are potential candidates for excision of the buccal fat pad. Buccal fat pad excision is also performed in patients who are properly diagnosed with a cheek mass because of displacement of the buccal fat pad (pseudoherniation).

The volume of the buccal fat pad is relatively consistent. This is true for men and women throughout their lives, despite weight fluctuations, and in people with varying body mass indexes. In fact, the submuscularly located buccal fat pad stubbornly persists (to a point) in spite of loss of weight and loss of subcutaneous fat. Perhaps this is because it has a different lipolytic rate than subcutaneous fat (similar to periorbital fat).

Buccal fat pad removal may be considered in any age group to treat buccal lipodystrophy or buccal fat pad pseudoherniation. Either condition can be approached with intraoral buccal fat pad removal with or without concomitant lipoplasty of the jowls and neck. Buccal fat pad removal can be performed in conjunction with other related facial procedures, including liposuction and facialplasty, or with body contouring procedures. Ultimately, the goal of buccal fat pad excision is enhanced facial aesthetics—contouring that highlights the angularity of the facial skeletal features.

Pseudoherniation of the Buccal Fat Pad

The cause postulated for pseudoherniation of the buccal fat pad is weakening of the investing fascia. Most commonly, patients present with a small, round "marble"-size contour irregularity in the cheek that has no reasonable explanation. It can be observed following earlier facial liposuction or face lift, in patients taking steroids, or be idiopathic in nature. Pseudoherniation of the buccal fat pad involves the presence of a soft mass with the consistency of adipose tissue that, in the absence of any associated pathological findings, is easily reducible with upward displacement into the buccal space. The condition should be distinguished from other cheek masses and can be confirmed by magnetic resonance imaging.

It is very important to identify and discuss the finding of a herniated buccal fat pad with the patient before facial surgery. This avoids the dilemma of explaining the finding postoperatively, a scenario in which patients may assume you are justifying a less than pleasing result (Figure 1). It is notable that if unexplained bulging is noticed as a new finding following a face lift or facial lipoplasty, pseudoherniation of the buccal fat pad is the probable cause.

Operative Technique

The buccal fat pad (Bichat’s fat pad) has a complex relationship to the facial structures. It has 4 parts divided by the parotid duct and facial nerve and vein into anterior and posterior portions (Figure 2). It is the buccal extension and main body that are removed intraorally to achieve midfacial contouring. The “layers” dissected in accessing the buccal fat pad, percutaneously or transconjunctival blepharoplasty, are similar to the layers encountered in a transcriclear or transconjunctival blepharoplasty, ie, skin mucosa, muscle investing septum, and fat (Figure 3).

I prefer to excise the buccal fat pad intraorally prior to surgical scrubbing and preceding any other facial procedures. The gingivobuccal space is injected (bilaterally) with a lidocaine and epinephrine-containing solution approximately between the first and second upper molar. The cheek is retracted laterally with Caldwell Luc retractors, and a 2.5-cm mucosal incision is made while preserving a cuff of mucosa for closure (Figure 4). The inci-
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Operative Strategies

**Figure 1.** This 72-year-old woman is seen following a face lift; several attempts using lipoplasty had been made to ameliorate the residual bulge in her cheek. The bulge was diagnosed as representing a pseudoherniation of the buccal fat pad and was treated with intraoral excision.

**Figure 2.** Anatomy of the buccal fat pad.
Figure 3. A, B, In performing intraoral excision of the buccal fat pad, the layers encountered are similar to those found in performing transconjunctival blepharoplasty.
**Operative Strategies**

**Figure 4.** The cheek is retracted, demonstrating the relationship of the intraoral incision for buccal lipoplasty to surrounding structures.

**Figure 5.** The buccal fat pad is exteriorized and drawn into the wound.
Figure 6. A, The buccal fat pad is elevated, clamped, and excised. B, The operator should retract the upper lip to avoid electrocauterizing it inadvertently.
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Figure 7. A, Preoperative view of a 74-year-old woman with buccal lipodystrophy. B, Postoperative view one year following a short scar face lift, 4-lid blepharoplasty, temporal brow lift, perioral laser procedure, and excision of the buccal fat pad.

Figure 8. A, Preoperative view of a 34-year-old woman with buccal lipodystrophy who desired to improve her facial contour. B, Postoperative view one year following buccal lipectomy and lipoplasty of the neck and jowls.
sion is carried through the mucosa and muscle while applying external pressure on the skin in the region of the buccal fat pad. The buccal fat pad is exposed and the fascia is pierced with scissors. A long hemostat is used to spread the fat while the surgeon continues to place external pressure on the cheek, manipulating the fat pad into the wound (Figure 5). Without excess traction, the portion of the fat pad that protrudes is grasped, gently teased into the field, clamped at its base, and excised. The stump is electrocoagulated, and the wound is packed with gauze soaked in lidocaine and epinephrine solution while the opposite side is operated (Figure 6). When you electrocoagulate, use a finger to displace the lips to avoid inadvertently cauterizing them. The wound is closed with one absorbable suture (Figure 6).

It is most important to remove only the fat that protrudes and to do so without excessive pulling or traction. Postoperatively, patients can expect to appreciate the change in facial contour over the course of several weeks (Figures 7 and 8).

Using the guidelines I have outlined (performing an intraoral approach, being careful not to pull on the fat pad, and resecting only that which easily protrudes with gentle pressure), complications of buccal fat pad excision for lipodystrophy or a pseudoherniated buccal fat pad are rare indeed. The most likely complication would be overresection. Hematomas and infections are potential problems in any surgery. I have not encountered those problems. In theory, the most significant complication with buccal fat pad removal would be nerve injury. However, a 7th-nerve injury can be avoided by following the aforementioned guidelines. I would thoroughly discuss with all patients the impact that buccal fat pad removal can have on current and future facial aesthetics, whether the buccal fat pad is “normal” or one that is pseudoherniated.

References

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