

Surgical Pearls

Alar Batten Grafts

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The alar batten graft is the workhorse for functional rhinoplasty and used when there is collapse at the sidewall.¹ This graft is used to support the lateral nasal wall and/or lower lateral cartilage and prevent collapse during inspiration. It is not intended to create



Video at

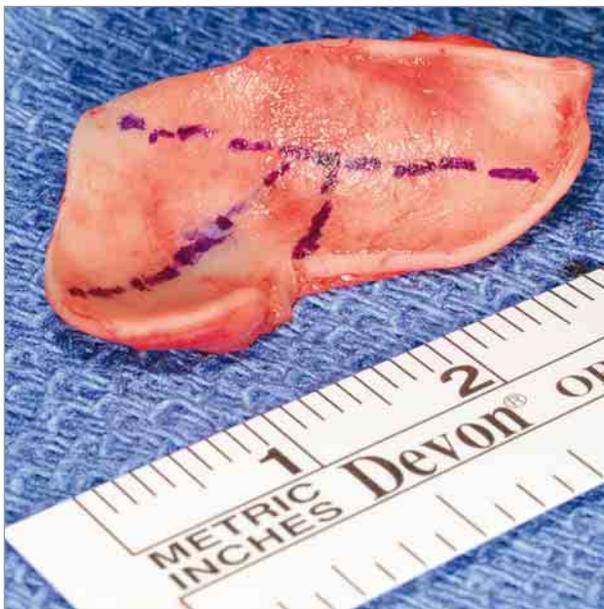
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a major change in resting anatomy, nor does it address middle vault narrowing. The anatomic epicenter of collapse varies but is most often at the *intervalve area*—the space between the internal and external valves, underlying the supra-alar crease. Recurvature of the lateral crura frequently coexists and can be corrected this way. Occasionally, the graft needs to be placed more caudally, within the alar lobule itself, to lend some support to the external valve. Thus, the preoperative assessment is critical for determining the exact location of dynamic collapse. Both endonasal and external approaches are possible, although the latter is used more frequently because of multiple grafts and sutures.

Surgical Technique

The technique can be viewed in the Video. Conchal bowl or nasal septum are the donor sites of choice. A subtle intrinsic curvature is ideal for preventing collapse. Two alar batten grafts can be fashioned from 1 conchal bowl cartilage, using the concha cyma and antihelix (Figure 1). To minimize external deformity, grafts are fashioned to be thin, narrow, and with beveled edges.

Figure 1. Conchal Bowl Cartilage



Two alar batten grafts can usually be fashioned from 1 conchal bowl cartilage.

The pocket for the graft is the single most important aspect of this surgical procedure. The graft must be placed precisely over the area of maximal collapse and oriented properly. There is a tendency to orient the pocket obliquely up rather than horizontally (posteriorly). This can inadvertently place the graft over the nasal bones rather than the intervalve region. A distinct effort is made to create a precise pocket over the area of collapse, including the inferior-lateral border of the lateral crus. It extends down to the bony pyriform aperture so the graft can rest on bone and not collapse medially (Figure 2). The width of the pocket need not be wider than the graft, thus allowing a snug fit and minimizing migration. It should also be close to the nasal mucosa. Dissection of the pocket is done with blunt scissors in a spreading motion rather than a cutting motion to minimize the chance of disrupting the lateral nasal artery. It is also important not to breach the nasal cavity.

The convex surface of the batten graft is oriented laterally to allow maximal support and suture secured with an absorbable stitch in a through-and-through manner. This holds the mucosa up against the concavity of the graft. Occasionally, sutures are passed between the graft and lateral crural cartilage as well.

Discussion

Similar batten grafts are placed during reconstruction of cutaneous defects involving the lower lateral half of the nose. Often the graft is placed more caudally to resist cephalic retraction of the alar rim. Revision cosmetic rhinoplasty may also uncover disruption of the lateral crura, warranting a similar reconstruction. Batten grafts are generally less effective in patients with cicatricial stenosis of the external valve or a pinched middle vault.

Figure 2. Placement of Alar Batten Graft at the Site of Maximal Nasal Collapse



The graft is typically angled slightly caudally with the lateral aspect resting on the bony pyriform aperture to ensure that it does not collapse medially.

Alar batten grafts are highly effective in functional rhinoplasty when there is a nasal sidewall collapse. The most common site of collapse is the intervalve area, along the inferior-lateral aspect of the lateral crus. Precise pocket creation for the graft is critical for success.

ARTICLE INFORMATION

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