Precise Reduction of Dorsal Septal Cartilage in Rhinoplasty: No. 12 Blade With Bayonet Forceps

Adam Bryce Weinfeld, MD

Dorsal reduction is an important maneuver in many rhinoplasty procedures. Most surgeons performing an open technique reduce the dorsal cartilaginous septum independent of the upper lateral cartilage.1,2 In this Letter to the Editor, I would like to present a technique for dorsal septal cartilage reduction that yields consistent and precise results. This method utilizes a bayonet forceps in conjunction with a No. 12 scalpel blade. Bayonet forceps are incorporated for the dual purpose of stabilizing the cartilage and providing a “track” to guide the blade to a straight incision path. A No. 12 blade is utilized because its unique concave cutting surface permits the cartilage incision with a motion that occurs in the same vector as the long access of the septum.

This technique is described in the context of open rhinoplasty.3,4 In most cases, less than 5 mm of dorsal reduction is needed, and the bone is reduced first. A rasp is applied to incrementally reduce the osseous component. The upper lateral cartilage is separated from the dorsal septum. The bayonet forceps are applied to either side of the septal cartilage in a manner such that the anterior edge of the arms marks the plane in which the incision will take place (Figure 1). A few millimeters of the pointed tip of the No. 12 blade can be fractured off to reduce the risk of lacerating the skin or upper lateral cartilage on the side opposite the side of scalpel approach (Figure 2).

The No. 12 blade is then placed on the posterior edge of the cartilaginous septum. Due to the concave shape of the blade, the handle is held parallel or nearly parallel to the long access of the septum. Incision of the cartilage is then actuated by pulling the scalpel the length of the septum, cephalic to caudal, relying on the grasping arms of the bayonet forceps as a tract. Minute serial reductions of less than 1 mm are possible and facilitate obtaining the desired result without overreduction. The remainder of the rhinoplasty is then completed according to the surgeon’s preferred technique.

I have used this technique consistently and with great satisfaction over the past four years for primary, secondary, and cleft rhinoplasty. To validate the technique, I...
relied on a previously published description of the avian sternal cartilage model to replicate dorsal septal cartilage reduction. With this model, I confirmed a decreased septal long axis-scalpel handle angle from 45° or greater with No. 11 or No. 15 blade to 10° or less with the No. 12 blade (Figure 3).

The characteristic shape of the bayonet forceps and the No. 12 blade works synergistically to provide precision and control in septal reduction. Specifically, the bayonet forceps provides two benefits. First, it supports the entire length of the septum during incision, thus reducing movement and associated incision inaccuracies. Second, the long and straight grasping surface of the bayonet forceps provides a fixed, linear track surface to guide the scalpel blade during incision of the entire length of the cartilaginous septum. The No. 12 blade facilitates cartilaginous reduction because its sickle shape orients a portion of the cutting surface facing back toward the handle. Thus, the blade can make cutting contact with the cartilaginous septum while the handle is kept parallel or near parallel to that axis. This orientation, combined with the tracklike support of the bayonet forceps, results in a smooth incision action as the handle is gently pulled in a caudal-distal direction. The smoothness of the incision yields precise and straight cartilage cuts in large and small septal reductions; thus, this method represents a distinct advantage.

Disclosures

The author declared no potential conflicts of interest with respect to the research, authorship, and publication of this article.

Funding

The author received no financial support for the research, authorship, and publication of this article.

REFERENCES