A New Practically Designed Punch for Preservation Rhinoplasty

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Although the dorsal preservation method for hump reduction in rhinoplasty is an old approach, it has recently reemerged as a popular technique. Considering the dynamics of this technique, more acceptable results can be achieved by a more conservative approach in appropriate patients.

One of the most important parts of dorsal preservation surgery is the removal of the subdorsal strip. The strip should be removed in a controlled, meticulous manner, as needed. Otherwise, irregularities may occur on the dorsum. The subdorsal part of the septal cartilage is removed by scissors. The subdorsal part of the ethmoid bone can be removed with Blakesley straight forceps, fine rongeur, an ultrasonic surgery device, a chisel, or rough scissors. The use of chisels or rough cutting tools can cause cribiform plate damage and cerebrospinal fluid leakage. Although ultrasonic surgery devices are less traumatic, there is a possibility that they may damage soft tissue due to direct contact. Today, a fine rongeur is used more often. The main disadvantage of a fine rongeur is that it is rough for this purpose, and the procedure cannot be done under vision. If gentle maneuvers are not performed during the bone excision, it may cause full mobilization of the ethmoid bone. Even though the surgeon is working meticulously, when he is working without seeing and with rough instruments, it may cause undesirable results. A disarticulation of the remaining part of the ethmoid bone and the septal cartilage joint may occur after excising subdorsal bone using rough instruments. The main disadvantages of Blakesley straight forceps are that the tip and body are straight, so they do not fit the anatomy of the procedure, and that the handle and tip are not strong enough to cut the bone.

The author presents a newly designed punch (Cabbarzade punch; Bahadır Medical Company, Samsun, Turkey) for removing a subdorsal fragment of ethmoid bone during dorsal preservation surgery, which was modified by him according to necessity (Fig. 1). The main differences in this new design are that the tip is thinner and curved and that the body (shank and crossbar) is curved (Fig. 1). These differences fit the anatomy of the dorsal preservation procedure popularized by Saban et al.

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The device is made from stainless chrome (X20Cr13), has a hardening capability between 40 and 48 Hardness Rockwell C and is sterilizable. The author has redesigned some of its angles and dimensions for usability. Figure 1 shows detailed dimensions of the final form of the Cabbarzade punch.

The advantages of the Cabbarzade punch are as follows: (1) entry–exit to the nose is less traumatic and ergonomic due to the curvature of the body (shank and crossbar); (2) the ethmoid bone fragment can be removed just below the dorsum because the curve at the tip of the punch is similar to the hump convexity; (3) the thinness of the punch allows a more precise excision of the desired amount from the desired part under direct vision; and (4) it is more durable for cutting bone because the handle of the punch is designed like a Kerrisson and the tip is designed like a rongeur. The author used the Cabbarzade punch in 42 cases; the results were uneventful, and no complications occurred.

With the use of the Cabbarzade punch, surgeons will be able to excise the subdorsal part of the ethmoid bone in a more controlled and precise manner under direct vision. In this way, the use of dorsal preservation surgery, which has many advantages, can be expanded with even better results.

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DISCLOSURE
The Cabbarzade punch was designed by the author (C.C.) and is not yet commercially available.

REFERENCES