Powered instrumentation for facial flap thinning

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Like most areas of medicine and surgery, the repair of nasal defects with local flap techniques involves a combination of both science and art. From a scientific standpoint, flap design requires an understanding of local blood supply to the flap and knowledge of the proper geometric design that will facilitate flap movement. Artistry enters the picture when the surgeon thins and sculpts the underside of the flap in an effort to replace the missing nasal skin. The flap must not only fill the defect, it must do so with tissue that will resemble the thickness and contour of that area of the nose.

The thinning of flaps is often accomplished with sharp instruments such as a curved Joseph’s scissors or a #6900 Beaver blade. These tools have performed well for years, but on some occasions (i.e., when a surgeon needs to reach a confined area), other options would be helpful. Powered endoscopic sinus shavers—particularly those equipped with smaller 3.5-mm serrated blades—are very useful for thinning the underside of local facial flaps (figure 1). These shavers are easy to handle, and they allow for precise, millimeter-by-millimeter removal of subcutaneous fat. Because their diameter is so narrow, they can reach into tight places and remove subcutaneous fat in areas where exposure is limited. Moreover, during multistage reconstructions, these shavers allow the surgeon to get under bulky skin without having to completely resect around the flap (figure 2). This allows the surgeon to debulk, shape, and sculpt the flap while maintaining its peripheral blood supply.

Figure 1. A: Photograph shows a surgical defect following Mohs’ excision of a large basal cell carcinoma. B: Following the first stage of forehead flap creation, excess bulk is present on the bridge of the nose and in the area of the left superior ala. C and D: A good cosmetic result is achieved following tate down of the flap and sculation of its underside with a powered sinus shaver.

Figure 2. Powered sinus shavers can reach under bulky skin without the need to completely resect around the flap.

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