Curved surgical blade for excision on concave surfaces

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Excision surgery on the concave and small surface of the ear and nose is performed with angulated blades such as ophthalmic (120°) and orthopedic (160°) blades, Mohs surgery blade (135°) and Unitome knife (100°) (an angulated knife used for ophthalmic surgery, Beaver]. However, all these blades are costly, and not readily found. Here the modified surgical curved blade is recommended for excision surgery on different curved and small surfaces. For this, I first selected a set of 4 surgical blades for making a curved blade, according to the need and site of the ear and nose (fig. 1 A). After this, the blade was held with artery forceps and heated in flame. When the blade is slightly red, then the blade is bent gently with DeBakey forceps to give a curved shape (fig. 1 B). Surgical blades (#20/23) were bent 90° to 100° to perform excision surgery on the floor of the concha and scaphoid fossa. For excision surgery on the wall of the concha and fossa, and the posterior auricular area, the blade was bent up to 120° to 135° to make a less curved blade. And if the lesions are on a smaller curved space like triangular fossa, cymba, vestibule of the nose and near the external auditory canal, then a blade (#11/15) is curved to excise the lesion (figs. 1 C, D). After modification in the shape, the blade tips were cut to avoid prick injury. In this way, all these curved scalpels can be used for excision surgery on concha and fossa of the ear (figs. 2 A-E), posterior auricular area (fig. 2 F), nasal fold (fig. 2 G), and on near inner canthus (fig. 2 H). In addition to this, these modified surgical blades can also be used on the fingers and toes as an alternative to DermaBlade (a curved, flexible, sterile shave biopsy instrument, Personna, USA). The novelty of this technique is easy to obtain a strong and stable curved blade for surgery on curved surfaces of the ear, nose, and as an alternative to DermaBlade for other parts of the body. During procuring, the blade is heated more on the non-cutting edge to protect the sharpness of the cutting edge. To avoid its breakage, the blade is bent gently in one or two efforts just after getting it mild to moderate red hot. For safety, during heating and bending the blade, we must be active and careful. The blade must be held and locked well with the artery forceps and bent gently with DeBakey forceps with smooth moderate pronation movement at the elbow joint. The incidence of blade breakage occurs but is very minimal if the blade is not heated to red, and bending is done with forceful movement in one attempt.

CONFLICT OF INTEREST

The author declares no conflict of interest.



Figure 1. A - A set of 4 surgical blades needed for making curved blades. B - The blade is curved with the help of a rtery forceps and DeBakey forceps. C, D - A set of 4 curved surgical for different curved sites



Figure 2. Different types of surgical blades are used on the floor of concha fossa (A-E), posterior auricular area (F), nose (G) and on the near inner canthus (H)

REFERENCES

- 1. Shelton R.M.: Use of a curved blade to harvest mohs micrographic sections. [In:] Innovative Techniques in Skin Surgery. M. Harahap (ed.). Marcel Dekker Inc., New York, 200, 149-157.
- 2. Shelton R.M.: The use of a curved ophthalmic blade to facilitate incising mohs micrographic sections with the desired bevel despite anatomical obstructions. Dermatol Surg 1998, 24, 897-899.

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