Measuring Template For Thyroplasty

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Thyroplasty is a phonosurgical operative technique to correct various types of dysphonias. Type-I thyroplasty is done to medialize a paralyzed vocal cord. A window is created in the lateral lamina of the thyroid cartilage and a silastic implant is pushed in to shift the cord medially and stabilize it in a medialized position to abolish the phonatory gap between the cords and improve the voice.

The dimensions of the window over the lateral lamina of thyroid cartilage are marked using calipers/measuring scale. The thickness of the implant is approximately measured by observing the shift of the vocal cord endolaryngeally using a fibreoptic laryngoscope.

To overcome the difficulty in marking the dimensions of the window on the cartilage and to calculate the thickness of the implant a thyroplasty measuring template has been devised and used by us. The template consists of a flat base plate of dimensions 3 mm x 8 mm. It has a handle on which there are marking at 1 mm interval. The entire template is made of metal (Fig 1). The base plate is placed on the thyroid lamina over the perichondrium and it is cauterized, this delineates the area of the window (Fig 2). After the window has been mobilized it is pushed medially using the base plate, the depth of insertion of the measuring rod which gives

Fig. 1 : Measuring template

maximum phonatory improvement is measured over the vertical handle of the measuring rod and this dimension is used to determine the thickness of the implant. The measurements are taken for both anterior and posterior thickness of the implant (Fig 3).

Fig. 2 : Measuring template used to cauterize window in thyroid cartilage

Fig. 3 : Depth of insertion of measuring template determines anterior and posterior thickness of implant