

How I Do It...

Suture Retraction Technique in Thyroid Surgery

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The technique of thyroid surgery has evolved through the centuries, since its first description by Abu al-Qasim, a legendary surgeon from Andalusia more than one thousand years ago. In the last couple of decades, major improvements and new technologies have been proposed and applied in thyroid surgery; among these are minimally-invasive thyroidectomy, new devices for achieving haemostasis and dissection, regional anaesthesia and intra-operative nerve-monitoring. The essential objectives for thyroidectomy have however always been the conservation of the parathyroid glands, avoidance of injury to the recurrent and external laryngeal nerves and haemostasis.

Introduction

This contribution outlines a technique of retraction of the thyroid lobe which would allow superior visualization of the operative field while carrying out thyroidectomies to keep complications to a minimum.

The initial steps, i.e. incision and exposure of the thyroid gland and releasing the superior pole, are similar to the standard technique. After ligating the middle thyroid vein, the Parathyroids have to be identified and preserved with their blood supply intact. The recurrent laryngeal nerve also has to be identified up to its entry at the level of the inferior border of cricopharyngeus. For optimal exposure of these hilar structures the gland must be rotated medially and mobilized anteriorly.

Various techniques have been described to retract the thyroid lobe. For example, swabs, Allis Forceps and Babcock Forceps. Swabs tend to soak and slip. They need repeated adjustment of position by releasing the gland. This takes away the constant focus of the surgeon from the dissecting field. The fingers that hold the swabs take up vital space and get in the way of the dissector.

Allis Forceps are traumatic due to the sharp edges at the tip. This makes it unsuitable on vascular glands. Both Allis and Babcock Forceps can hold only the superficial part of the gland. Thus rotation of the gland while retracting needs more force leading to tearing and bleeding. Due to these disadvantages it is not suitable on large glands.

The operative technique

I describe the technique of using sutures to retract the gland which overcomes the disadvantages outlined above.

Thick nylon 1 or 0 suture is used to take an adequate bite on the thyroid lobe in a figure of eight fashion. Care is taken not to go too deep. The ends of the sutures are held using an artery forceps leaving an appropriate length.

Unlike the commonly used metallic forceps for tissue retraction, the suture is tractable and allows a rotation of 360 degrees without the tissue being torn. In case of a larger gland, with progressive dissection, additional sutures can be added without compromising on the visibility of the dissecting field. Further it is easily available and cost effective.

The constant position of the suture retraction allows the surgeon to focus on vital structures without having to change the clamps repeatedly. With the added advantages of this technique,

identification of recurrent laryngeal nerve, parathyroid gland and its blood supply are made easier. (Fig 1)

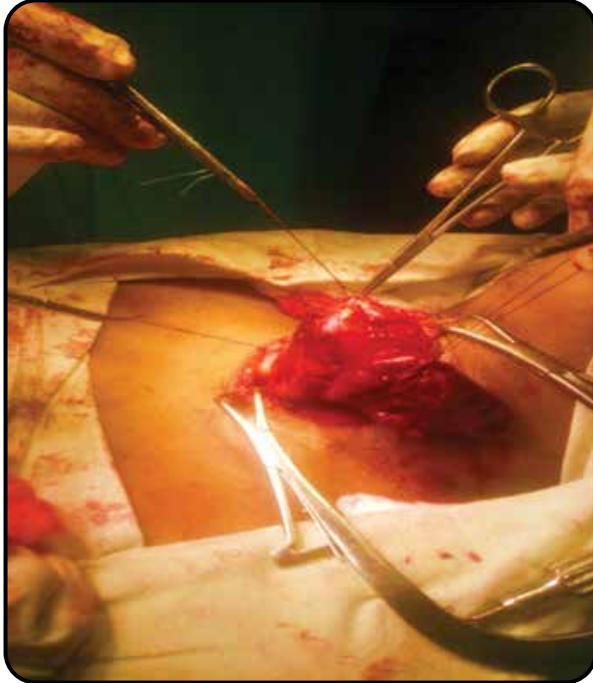


Fig 1

Conclusion

The suture retraction technique provides superior exposure in a limited space allowing meticulous dissection. The technique described can be added to the armamentarium of the thyroid surgeon