Technical note

A new autostatic surgical retractor in head and neck surgery

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Adequate exposure of the operative field is important in all operations, and head and neck surgery encompasses several techniques including microscopic, endoscopic, and open operations. Conventional self-retaining stainless steel retractors can both hinder a complete view and obstruct the placement of other instruments. These devices often require adjustment, their prongs are sharp, and they keep tissues in traction by increasing the stretch and injury to the wound.1

The ReeTrakt (Insightra Inc. – Irvine, CA, USA) is a new disposable retractor that was first used in the treatment of an arteriovenous fistula. The retractor used had an ergonomic hook made of polycarbonate, the tip of which was too large to be used in head and neck surgery.2

The ReeTrakt device that we tested consisted of a flexible sticky pad bonded to a thin retraction strap that passed through the bottom of an ergonomic hook, which came in a number of different designs. The stainless steel hook is engaged at the edge of the wound parallel to the subcutaneous layer. The adhesive base can easily be applied to the skin or to the surgical drapes once the protective backing has been removed. The strap is tightened until the desired tension is achieved; at this point the strap and the base are fixed together with Velcro® (Fig. 1). We generally place the hooks symmetrically on the opposite sides of the wound; once applied, the assistant adjusts the retractor to obtain the desired tension using only one hand.

This work was approved by our hospital’s ethics committee on clinical investigation (No. 53/2013) and written informed consent was obtained from all patients.

We use these new devices for many different surgical approaches in head and neck surgery including elective tracheotomy (Fig. 2), otosurgery (Fig. 3), neck dissections (Fig. 4) and resection of oral cancer, and operations on the

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salivary glands and larynx. We did not find that the use of the carbon dioxide laser was a contraindication.

The adhesive base allowed countless adjustments of the straps to the desired tension and bonded consistently to the skin or the surgical drapes. The use of a clip to fix the bottom of the retractors to the drapes is a more laborious alternative. Thanks to the stability of the adhesive base we found less need to adjust the other instruments, which could be moved freely in the operating field. ReeTrakt devices provided “hands free” assistance, so the assistant could be more directly involved in the operation without overcrowding the operating field. In this way, the ReeTrakt made the work of junior surgeons easier than a manual retractor.

Finally, we noticed that the hook did not damage the insertion sites and there were no swellings or scratches. The flexibility of the tips and the progressive controlled retraction allowed atraumatic placement, so we regard the devices as delicate enough to be used in head and neck surgery.

Conflict of Interest

The authors declare that there is no conflict of interest.

Ethics statement/confirmation of patient permission

Written informed consent was obtained from all patients.

References