

**Technical note****Neck incision for comprehensive neck dissection****S. Ganesan^{a,*}, S.K. Saxena^b, E.M. Iype^c**^a*Department of Surgical Oncology, Regional Cancer center, Trivandrum, India.*^b*Department of Otolaryngology and Head and Neck Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India.*^c*Department of Surgical Oncology, Regional Cancer center, Trivandrum, India.*

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ABSTRACT

Over decades, a variety of incisions have been described for neck dissections. The current practice for neck dissection is to employ only a transverse incision along a suitable skin crease. We attempted a modification of Conley and Schobinger incisions avoiding a three point junction for two patients. We conclude that design of such a flap, if chosen to be done should be limited to the posterior border of the sternocleidomastoid and not to extend beyond the middle two thirds of the sternocleidomastoid.

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1. Introduction

The decision for making a neck incision depends on vascular pattern of neck, exposure required, prevention of carotid artery blow out if skin breakdown should occur, post-operative healing and scar outcomes. Over decades, a variety of incisions have been described for neck dissections. In our institute, we had routinely used either a Schobinger incision or a Conley incision for neck dissection with very little accepted complications. But the vertical component of these incisions is associated with a significant aesthetic deformity.

2. Technical change

The current practice (Jeffrey, C.L. et al 2010) for neck dissection is to employ only a transverse incision along a suitable skin crease. This incision is adequate for a supraomohyoid neck dissection as well as a comprehensive neck dissection. But for a beginner in Head and Neck residency, the kinetics of a wide exposure in the neck will be

required initially to identify the vital structures and proceed smoothly with the neck dissection. Though we use a single neck crease incision (Fig1), we also use the trifurcate incisions described for a modified neck dissection. To avoid a three point junction, we attempted a modification (William, W.M., 2002) of Conley and Schobinger incisions. This incision begins in the submental region and extends posteriorly about 2 finger breaths inferior to the mandible at the level of the mandibular notch. It then extends postero-superiorly and is rounded of just below the tip of the mastoid process. At this point the incision is directed inferiorly along the posterior border of sternocleidomastoid muscle to the clavicle at the junction of its anterior and middle thirds. Flaps were elevated in all directions. The chosen incision is carried through the skin, subcutaneous tissue and platysma. This skin flap was elevated in all four directions and it gave good exposure to the mandibular ramus superiorly, strap muscles anteriorly, clavicle inferiorly, and trapezius anterior border posteriorly.



Fig. 1. Post-Operative picture of a Laryngectomy patient operated just with a single transverse crease incision. Tracheo Esophageal prosthesis is noted in the stoma.

3. Results

Two cases were done with the above said incision for a left comprehensive neck dissection. We found that the tip of the flap, especially the area inferior to the tip of the mastoid and posterior to the posterior border of sternocleidomastoid (Fig 2, 3) underwent discoloration on POD3 and sloughed out later on. This was only a superficial necrosis, which was managed conservatively, healed by secondary intention. The scar outcome was poor, patients did not suffer from any further major complications. We conclude that design of such a flap, if chosen to be done should be limited to the posterior border of the sternocleidomastoid and not to extend beyond the middle two thirds of the sternocleidomastoid.



Fig. 2. Post-operative picture of a left Comprehensive Neck Dissection patient showing apical necrosis.



Fig. 3. Post-operative picture of a left Comprehensive Neck Dissection patient showing similar apical necrosis as in Fig 2.

References

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