Experience with the hairline incision for neck dissection

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ABSTRACT
A multitude of incision lines are suggested for neck dissection. These are considered according to associated procedures such as laryngectomy, thyroidectomy etc. Considerations include cosmesis, skin characteristics and involvement, unilateral vs. bilateral, location of nodal disease and type of dissection, pre and postoperative radiation, previous surgery, need for flap reconstruction and need for tracheostomy. Decisions for thyroidectomy performed with neck dissection should allow for the possibility of bilateral access. A single transverse incision is often used for total thyroidectomy and comprehensive neck dissection and provides excellent cosmesis and exposure. Occasionally however, even an extended incision fails to provide sufficient access. Extending an existing common Thyroid incision line to the mastoid tip is always an acceptable option but is not cosmetically pleasing. The presented incision incorporates a single transverse cut as far as the hairline and then curving it up as high as needed without further cosmetic compromise. There is no need to curve excess to it and the upper curving hairline part of the incision can be added and extended should the need arise. Application of this incision is useful in selected cases of non-thyroid cancer requiring neck dissection.

INTRODUCTION
A multitude of incision lines are suggested for neck dissection. These are considered according to associated procedures such as laryngectomy, thyroidectomy, approach to the oral cavity or pharynx, parotidectomy etc. Considerations include cosmesis when not compromising the resection with eliminating trifurcations if possible. Other considerations include skin characteristics and involvement, unilateral vs. bilateral procedures, location of nodal disease and type of dissection, pre and postoperative radiation, previous surgery, need for flap reconstruction and need for tracheostomy. Decisions for thyroidectomy performed with neck dissection should allow for the possibility of bilateral access. A single transverse incision is often used for total thyroidectomy and comprehensive neck dissection and provides excellent cosmesis and exposure. Occasionally however, even an extended incision fails to provide sufficient access. Extending an existing common Thyroid incision line to the mastoid tip is always an acceptable option but is not cosmetically pleasing.

METHODS AND MATERIALS
Study Design A prospectively evaluated case series operated on between 2005 and 2008. All patients underwent neck dissection as an isolated or combined procedure in the Sheba Tertiary referral center utilizing the extended hairline incision. This is performed by incorporating a single transverse incision as far as the hairline, and then curving it up along the hairline border as high as needed.

RESULTS
23 cases, 16 with thyroid malignancy, underwent neck dissection with this approach. Access was excellent in all cases. In four patients, the upper limb of the incision has widened up to one cm. This scar was revised in one case. In another two patients treated with radiation, the hairline receded and the scar albeit posterior and not evident was no longer at the level of the hairline.

DISCUSSION
While the need for exposure for neck dissection beyond a single transverse incision is uncommon in thyroid surgery, this approach is advantageous when better exposure is needed. This can occur during the procedure while the surgeon is committed to the transverse line or in those cases where a wide approach is needed with the desire to provide a maximally pleasing cosmetic result. Application of this hairline incision is useful in selected cases of non-thyroid cancer requiring neck dissection with or without parotidectomy.

REFERENCES
Attie JN. A single transverse incision for radical neck dissection. Surgery 1957;41:498-502