

# **Complications of Radical Neck Dissection**

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## Complications of Radical Neck Dissection

### Abstract

Neck dissection is the operation which is done for patients with cancer of the head and neck to remove the lymphatic bearing tissues in the neck. This procedure is considered an important step in the management of head and neck cancers as it is essential to achieve loco-regional control and for proper staging.

it is first described by George Crile in 1906 as the standard classical radical neck dissection and is still considered the only operation for surgical management of metastatic neck nodes, however modifications are now accepted and are being performed with an increasing frequency. Neck dissection is classified into: radical neck dissection, modified radical neck dissection, selective neck dissection (supraomohyoid - lateral - posterolateral – central) and extended radical neck dissection.

Radical neck dissection refers to the removal all ipsilateral cervical lymph nodes groups extending from the inferior border of the mandible superiorly to the clavicle inferiorly and from lateral border of the sternohyoid muscle, hyoid bone and contralateral anterior belly of digastric muscle to the anterior border of the trapezius muscle posteriorly including all lymph nodes from level I to level IV. In addition, the spinal accessory nerve, the internal jugular vein and the sternocleidomastoid muscle are also removed along with. Radical neck dissection is considered a safe procedure but due to the complex anatomic structure of the neck with many neurovascular structures connecting the head with the trunk, minor or major complications may occur.

These complications can be classified into:

Perioperative complications that may occur during surgery or within 24 hours after as; hemorrhage, shock, airway obstruction, vascular injury, nerve injury and pneumothorax and others less common complications.

Postoperative complications that may occur after 24 hours postoperative as; delayed bleeding, hematoma, seroma, wound infection, flap necrosis, fistula formation, chylous leak, carotid blow out, cerebral edema, facial edema and other less common complications.

However, precise knowledge of the neck anatomy with its possible variation as well as

anticipation of potential perioperative and postoperative complications will reduce the risk of such major complications after neck dissection.