

# LATERO-CERVICAL NECK DISSECTION IN MALIGNANT TUMOR PATHOLOGY. A STATISTICAL SURVIVAL OF ITS OWN

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**Keywords:** neck dissection, tumor formation, survival

**Abstract:** Understanding the biological progression of metastatic disease, with origin at the level of head and neck towards the cervico-facial node stations, allowed the development of changes in classic radical neck dissection, in order to reduce morbidity and maintain therapeutic effectiveness

**Cuvinte cheie:** evidarea ganglionară, formatiune tumorală, supraviețuire

**Rezumat:** Înțelegerea progresiei biologice a bolii metastatice, cu plecare de la nivelul capului și gâtului spre stațiile ganglionare cervico-faciale, a permis dezvoltarea unor modificări la nivelul evidării ganglionare laterocervicale clasice radicale, în vederea reducerii morbidității și a menținerii eficienței terapeutice.

## WORKING HYPOTHESIS, PURPOSE, OBJECTIVES

The working hypothesis, purpose, objectives: to standardize the terminology of multiple variants of neck dissection, we recommend the following plan:

### 1. Comprehensive neck dissection

1. Classical radical neck dissection.
2. Extended radical neck dissection (resection of additional lymph node groups or other structures as cranial nerves, muscle tissue or tegument).
3. Modified radical neck dissection type I (this technique preserves selectively the accessor cranial nerve).
4. Modified radical neck dissection type II (this technique preserves selectively the spinal nerve and the sternocleidomastoid muscle, but sacrifices the internal jugular vein)
5. Modified radical neck dissection type III (this technique preserves selectively the spinal nerve, sternocleidomastoid muscle and jugular vein).

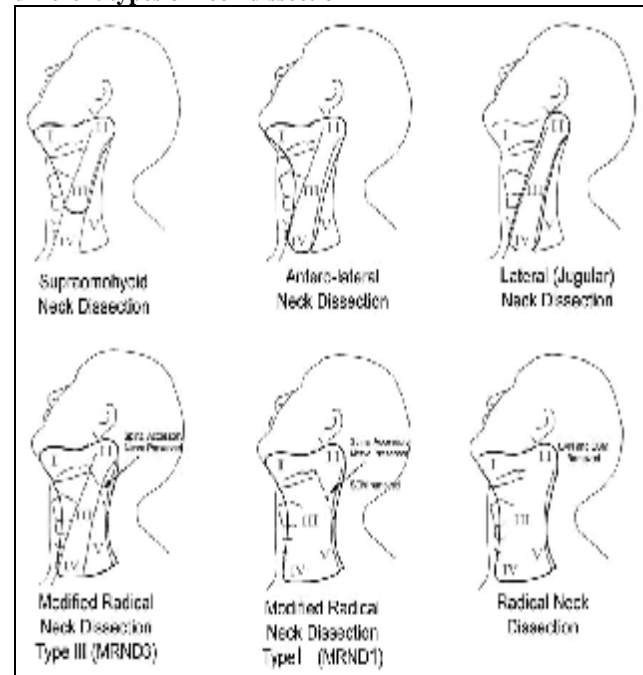
### 2. Selective neck dissection

These types of surgical interventions removes only certain lymph nodes groups and does not remove routinely all five nodal groups. Usually these interventions are applied with the purpose of staging and diagnosis in patients which do not present palpable cervical lymphatic metastasis, but with micrometastasis risk. Are included the following types of interventions:

1. Supraomohioidian neck dissection (this technique removes lymph nodes groups I, II and III, it is recommended especially for tumors with primary starting point in the oral cavity).
2. Jugular neck dissection (this technique removes selectively the lymph nodes groups II, III and IV).
3. Anterior cervical neck dissection (this technique brings together the removed lymph nodes groups in the type of supraomohioid and jugular neck dissection I, II, III and IV).
4. Cervical neck dissection of central segment (this technique selectively removes the lymph nodes groups contained in the central segment of the neck, adjacent to the thyroid gland and tracheo-esophageal chain-level VI. This technique is indicated for thyroid gland cancer).

5. Posterior neck dissection (this technique removes the lymph nodes located in the occipital triangle, posterior triangle of the neck and deep jugular lymph nodes levels II, III, IV. This technique is indicated in melanoma and squamous carcinomas of posterior scalp).

Figure no. 1. Cervical lymph nodular groups removed in different types of neck dissection



## MATERIAL AND METHODS

In this study we introduced the 67 patients which were operated in the Department of Oral Surgery and Maxillofacial Surgery II in Cluj-Napoca, for different malign pathological entities at the level of head and neck. Tumor stages were from T1 to T4, predominantly T3, T4.

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## CLINICAL ASPECTS

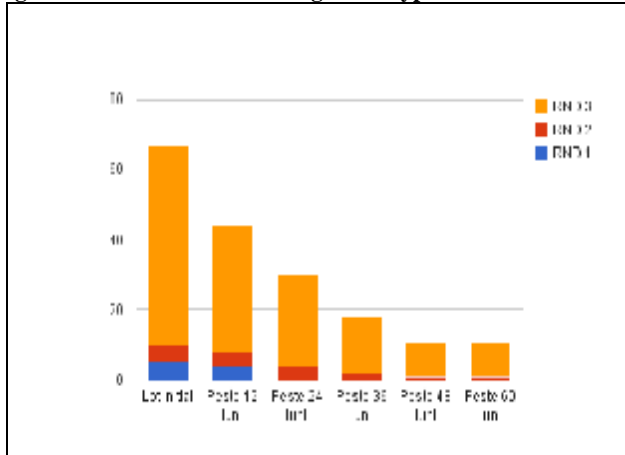
### RESULTS

**Table no. 1. Numerical and percentage distribution according to the type of neck dissection**

1	MRND1	5	6,58%
2	MRND2	4	5,26%
3	MRND3	58	76,32%

- MRND:modified radical neck dissection
- MRND1:radical neck dissection,modified type 1
- MRND2:radical neck dissection,modified type 2
- MRND3:radical neck dissection,modified type 3

**Figure no. 2. Survival according to the type of neck dissection**



### CONCLUSION

The survival beyond 5 years is superior to radical neck dissection technique ,modified type III ,but it depends on tumor stage ,patient's condition, comorbidities.

### BIBLIOGRAPHY

1. Head and Neck Lymphatics Lymph Nodes Cervical Auricular Occipital Facial. anatomyuniverse.com
2. LYMPHATIC VESSELS OF THE HEAD. The lymphatic vessels. anatomy.tv
3. Jatin Shah. Cancer of the Head and Neck (Acs Atlas of Clinical Oncology) pmph usa; 1 edition (October 1, 2001).
4. Bill Fleming. <http://www.endocrinesurgery.net.au/papillary-cancer-management/>
5. Pan WR, le Roux CM, Levy SM, Briggs CA. The morphology of the human lymphatic vessels in the head and neck. Clin Anat. 2010 Sep;23(6):654-61.
6. Pan WR, Suami H, Taylor GI. Lymphatic drainage of the superficial tissues of the head and neck: anatomical study and clinical implications. Plast Reconstr Surg. 2008 May;121(5):1614-24
7. Weidman B, Warman E. Lymph nodes of the head & neck.. J Oral Med. 1980 Apr-Jun;35(2):39-43
8. Bronnikov SM. Anatomic-topographic features of the deep lymph nodes of the neck in adult humans. Arkh Anat Gistol Embriol. 1976;71(11):28-34.