3 - Clinical Anatomy

PO-068 - (23831) - NON-RECURRENT LARYNGEAL NERVE: ANATOMICAL VARIATION THAT INCREASES THE RISK OF NERVE INJURY DURING THYROID SURGERY

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Knowing the anatomy of cervical structures and their possible variations is of utmost importance to perform thyroid surgery. Malformations of the IV branchial arch can lead to an anatomical alteration known as non-recurrent laryngeal nerve (NRLN). The prevalence is 0.3-0.8% on the right side and 0.004% on the left side.

In these cases, the inferior laryngeal nerve originates from the cervical vagus nerve, entering the larynx without hooking around the subclavian artery on the right side or around the aortic arch on the left.

We report a case were a non-recurrent laryngeal nerve identified in the right side, during dissection of a cadaver part.

During dissection of a cadaver part (anterior cervical organs) we found that the inferior laryngeal nerve arose from the vagus nerve in the cervical area, at the level of the middle third of the thyroid lobe. It crossed horizontally posterior to the thyroid lobe, passing between the posterior and anterior branches of the inferior thyroid artery and entered the larynx near the cricothyroid junction.

During thyroid surgery, the presence of a non-recurrent laryngeal nerve represents a challenge to its recognition and preservation, increasing the risk of iatrogenic damage which may result in hoarseness, dysphagia and airway impairment. Some cases of NRLN are described with an aberrant right subclavian artery which courses behind the esophagus (“arteria lusoria”). Careful dissection, awareness of possible anatomical variations and the use of neuromonitoring during thyroid surgery are the most important strategies to minimize nerve injuries and assure patients quality of life.

Palavras-chave : Non-recurrent laryngeal nerve, Thyroid surgery, Anatomical variations