FP 31: NON-RECURRENT LARYNGEAL NERVE IN THYROID SURGERY: A REPORT OF CASE SERIES IN VIETNAM AND LITERATURE REVIEW

Quang V. Le[a], Duy Q. Ngo[a,*], Quy X. Ngo[a],

** Presenting Author: Dr. Duy Quoc Ngo, M.D. Email address: duyyhn@gmail.com*

First author: Quang Van Le, M.D.

a Vietnam National Cancer Hospital, 30 Cau Buou Street, Thanh Tri District, Hanoi, Vietnam

Email addresses: lequang@hmu.edu.vn (Quang V. Le), duyyhn@gmail.com (Duy Q. Ngo), ngoxuanquy1979@gmail.com (Quy X. Ngo)

Abstract

Background: The non-recurrent laryngeal nerve (NRLN), which is found in 0.25 to 0.99 of the patients who undergo thyroid surgery, is a rare embryologically-derived variant of the recurrent laryngeal nerve (RLN). Identification and prevention of injury to the laryngeal nerve is one of the main issues in thyroid surgery; thus, thyroid surgeons should have adequate knowledge of all anatomical variations of the RLN.

Presentation of cases: All four patients with the non-recurrent laryngeal nerve on the right side were performed thyroidectomy and discharged without any complications. During the procedure the surgeons found that the right laryngeal nerve was not recurrent and originated directly from the vagus nerve. Moreover, the right subclavian artery of these patients arose directly from the aortic arch.

Discussion: NRLN can be easily damaged during surgery and its presence is closely related to subclavian artery anomaly. There are 2 types of NRLN in terms of its origin, nonetheless, in all variations of the NRLN and RLN, the nerve travels to the larynx at the level of cricothyroid joint, close to berry ligament.

Conclusion: The NRLN is a rare, but clinically relevant structure and is associated to an increased risk in iatrogenic injury. Thorough anatomical knowledge and cautious dissection are essential to identify variants of RLN in order to minimize the risk of injury to the patient . Additionally, in embryological terms, the presence of NRLN is closely related to subclavian artery anomaly.