G27 Laryngeal Nerve Iatrogenic Lesions

Luigi Viola, MD, Marina Albano, MD, Francesco Vimercati, MD, and Nunzio Di Nunno, MD, PhD, Università di Lecce, Via G. Dorso n. 9, Bari, 70125, Italy*

After attending this presentation, attendees will deepen their understanding of the surgical practices most likely responsible for damage concerning the lower laryngeal nerve. For this reason, the authors examined the surgical operating procedures that more frequently involve this nerve. Therefore, thanks to the study of the specific international bibliography, procedures have been highlighted which must be carried out, in order to avoid this complication.

This presentation will impact the forensic community and/or humanity by studying the circumstances surrounding medical malpractice concerning laryngeal nerve lesions.

The aim of this work is to highlight the surgical practices mostly responsible for damages concerning the lower laryngeal nerve. Iatrogenic lesions of the recurrent laryngeal nerve have always been one of the most serious and frequent complications in the field of the thyroid surgery. During a thyroid operation, according to the medical literature, the complication rate ranges from 0.3 to 4%, but can range up to 17% with an operation concerning a thyroid neoplasia relapse. The lower laryngeal nerve iatrogenic lesions are supported by documentary literature in the field of the thoracic surgery, especially in the surgical literature on heart surgery.

Studying the most specific reliable and recent bibliographical sources, one can learn of the different factors which cause the onset of lower laryngeal nerve lesions, so they can be identified in a timely manner, in order to prove any possible medical mistake that has occurred.

An essential role is played in this case by the fundamental features of the main pathology of recurrent laryngeal nerve damage. In particular, it depends on whether the pathology concerns primarily the nerve itself (traumatic, toxinfectious, auto-immune, etc) or is the nerve just secondly involved by another pathological process (thyroid and laryngeal pathologies, aortic and carotid aneurysm, pulmonary neoplasia, dilatation of the left atrium in the mitrals, mediastinum lymph node disease, cervical adenopathy, etc). Other factors that need to be considered in a case of alleged medical responsibility are the different surgical operating procedures carried out, especially the nerve isolation techniques, which is the main step during an operation concerning frames adjoining the nerve itself.

With regard to this study, the authors found a greater number of recurrent nerve lesions occurring during a surgical operation due to thyroid pathologies and malignant neoplasia behind the breastbone that are particularly widespread. In fact, statistical data shows a higher risk of iatrogenic damage during more drastic operations, such as with a total or subtotal thyroidectomy or after a second operation in the same location. By observing and analyzing six cases of recurrent nerve paralysis, and after a review of the pertinent literature, this study attempts to underscore the medico-legal difficulty in assessing the nerve damage, or identifying the professional responsibility in causing the damage. The examination of these cases showed a sharp preponderance of mistakes made by the surgeon. Among the above-mentioned cases under examination, four cases out of six concerned people undergoing an operation for thyroidectomy (total or subtotal), one case of laryngectomy, and one of aortic replacement in a patient affected by an aortic dissecting aneurysm. The second step of the analysis of the medical practice showed a relevant number of mistakes concerning a non-isolation of the lower laryngeal nerve during the surgical operation, even though there are many intraoperating techniques able to highlight the nerve frames at issue, and preserve them properly. Medicolegal experts consider this negligent practice, able to identify these mistakes made by doctors implicated in a similar situation, as a result of not keeping to the therapeutic protocols in the specific literature.

Among six cases of phonatory deficiency under examination, four cases have been closed with the admission of the surgeon's responsibility, while in the other two cases any responsibility has been excluded. One case involved the surgical repair of an aortic aneurysm, and it was considered more important to save the patient's life than preserve his nerve. In the other case, the damage was linked to the post-operative behavior of the patient himself.

Laryngeal Nerve, Medical Malpractice, Medical Liability

 ** Presenting Author*