

Short Note

Traumatic Injuries of the Larynx: Clinical and Medico-Legal Aspects

Lucio Maci* and Andreana Masi

INAIL Territorial Department Lecce, Italy

*Corresponding author

Lucio Maci, INAIL Territorial Department Lecce, and Brindisi, Italy, Tel: 0832-666257; Email: lmaci@inail.it

Submitted: 16 February 2018

Accepted: 26 March 2018

Published: 28 March 2018

ISSN: 2475-9406

Copyright

© 2018 Maci et al.

OPEN ACCESS

Keywords

- Larynx- trauma
- I.N.A.I.L
- Medico
- Legal aspect

Abstract

Laryngeal trauma is an uncommon, diverse, and potentially life threatening injury presenting acutely to the otolaryngologist. Most commonly, trauma to the larynx occurs as a result of a motor vehicle accident or clothesline injury. A small percentage of causes include direct blows sustained during assaults, sport injuries, hanging, manual strangulation and iatrogenic causes. The first clinical and then medico-legal evaluation of possible after-effects presupposes the acquisition of the entire clinical documentation, the correct clinical classification in the state, the possible request for other specialist advice and / or instrumental examinations, the search for any pre-existing and evaluation according to analogical criteria and maximum possible objectivity.

INTRODUCTION

Laryngeal trauma is most common associated injuries with laryngeal fractures are intracranial injuries, open neck injuries, cervical spine fractures and esophageal injuries. The external laryngeal trauma of clinical relevance are relatively uncommon in the literature is in fact reported an incidence between 1 in 124,000 and 1 in 137,000 injuries related to a general emergency department. Laryngeal fractures can be categorized as either penetrating or blunt injuries, which can be further, categorized as either high or low velocity. The injury is uncommon due to protection of the larynx superiorly by the mandible (particularly when the head is flexed), inferiorly by the sternum and laterally by the SCM muscle [1-3].

Laryngeal trauma is often divided into two main groups-blunt trauma and penetrating trauma. Laryngeal injuries vary by anatomical location:

- Glottis: Traumatic force results in cruciate fractures of the thyroid cartilage near the attachment of the true vocal cords.
 - Subglottis:
 - Hyoid bone:
 - Cricothyroid joint:
 - Cricoid joint:
 - Complications include the following:
 - Acute
- ♦ Airway obstruction

- Aphonia
 - Dysphonia
 - Odynophagia
 - Dysphagia
 - Postoperative complications (eg, hematoma, infection)
- ♦ Chronic
- Voice compromise
 - Chronic obstruction
 - Vocal cord injuries
 - Fistula (tracheoesophageal, esophageal, or pharyngocutaneous)
 - Cosmetic deformity
 - Chronic aspiration
 - Inability to decannulate

MATERIALS AND METHODS

The study used the institutional series, the databases of the Italian institutes, and the review of the literature.

RESULTS AND DISCUSSION

The overall outcome and prognosis of a patient with a laryngeal fracture depends on several factors, such as extent of injury, timing of repair, and the ability of the otolaryngologist to properly evaluate and treat the patient who has been

traumatized. Generally, success is measured in terms of voice and airway function. Minor injuries usually result in return to pre-injury airway and voice status. More significant trauma results in voice changes and requires more intensive procedures for airway stabilization.

CONCLUSION

Object of our work are the laryngeal external trauma (open and closed) in various anatomical sites. They have highlighted the process of diagnosis and especially the forensic investigation with particular reference to possible sequelae and their evaluation in terms of damage according to the Italian legislation [4,5].

ACKNOWLEDGEMENT

Centri Medico-Legali I.N.A.I.L. di Lecce, Brindisi e Taranto

REFERENCES

1. Maci L, Quattrone E, Assennato AC, Pagano V. Trauma of the Larynx. Proceedings of the Congress of Legal Medicine and Social Security. 2014.
2. Butler P, O'Rourke AK, Wood BP, Porubsky ES. Acute external laryngeal trauma: experience with 112 patients. *Ann Otol Rhinol Laryngol.* 2005; 114: 361-368.
3. Hwang SY. Management dilemmas in laryngeal trauma. *Send to J Laryngol Otol.* 2004; 118: 325-328.
4. O'Mara W, Hebert AF. External laryngeal trauma. *J La State Med Soc.* 2000; 152: 218-222.
5. Schaefer SD. The treatment of acute external laryngeal injuries. *Arch Otolaryng HNS.* 1991; 117: 35-39.

Cite this article

Maci L, Masi A (2018) Traumatic Injuries of the Larynx: Clinical and Medico-Legal Aspects. *JSM Burns Trauma* 3(1): 1036.