

ENT Congress 2019: AIRWAY MANAGEMENT OF THE BURN PATIENT – OUR EXPERIENCE- Athanasia Tourgeli- ENT Consultant EVANGELISMOS Hospital Athens

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Introduction: The management of burn patient in A&E Department is a really emergency situation which demands the liaison of various specialties. Patients with extended burn injuries have also smoke inhalation injury and compromise airway, therefore the role of Otolaryngologist is of vital importance. Specifically Otolaryngologist can diagnose with flexible laryngoscopy a compromise airway and thus contributes to secure it via intubation or even tracheotomy

However, airway management in the thermally-injured patient remains a clinical challenge. Even when performed by trained physicians in the controlled environment of a burn unit, the potential for airway catastrophe is well-documented in this population. Pre-hospital and pre-burn centre hospital providers with insufficient training are usually the first to tend to the burn victim, and they are often forced to make critical airway management decisions. Moreover, initial treatment of the patient is usually in a less controlled environment, such as at the scene of the burn injury or in the non-burn centre emergency room, which significantly increases the difficulty and complexity of airway management⁶.

The decision to perform early pre-burn centre endotracheal intubation in a patient with face and/or neck burns is a difficult one. Despite a growing interest in the literature, a great deal of controversy remains. The purpose of this paper is to characterize the experience of the burn unit of the Hospital da Prelada with face and neck burn patients arriving endotracheally-intubated (ETI).

Purpose: This retro prospective study aims to present the management of the burn patient who were diagnosed with compromise airway and pulmonary injury from smoke inhalation

Methods: The ENT Clinic was called to examine 70 victims of burn who reached the Emergency Department of our Hospital within a period of 24 months; all of them had inhaled smoke and underwent examination via flexible Laryngoscope. The patients who had inhaled smoke and had thermal injury of upper airway, burn injuries of face and neck, hypoxemia were considered symptomatic. On the contrary patients who did not have symptoms and findings of thermal respiratory injury or compromise airway as well as normal arterial blood gasses were considered asymptomatic. The evaluation of burn patients was multifactorial as many specialties were involved; was consisted of the current status of the patients, the endoscopic findings and the evaluation of the extension of the burn injuries

A retrospective study was carried out including all the patients admitted to the burn unit of the Hospital da Prelada with facial burns between January 2009 and September 2013. Based on these inclusion criteria, 136 patients were selected. Computerized and paper clinical files were consulted to obtain clinical information. This information included different parameters:

characterization of the sample: gender, age, co-morbidities;

characterization of the injury mechanism: etiology of

the burn (thermal, chemical, electrical), location of the injury (indoors or outdoors);

characterization of the burn lesion: anatomical areas, total body surface area (TBSA) burned, depth, evolution;

characterization of the endotracheal intubation process: environment (pre-hospital, emergency room, operating room, burn unit), motive, extubation time, re-intubation time, pre- and intra-burn unit laryngoscopy/bronchofiberscopy results, description of hospitalization evolution; time of hospitalization, treatment (conservative, surgical), complications, sequelae, mortality.

Statistical analysis was performed using Excel and SPSS 20.0 for all statistical analysis.

Results: 30 patients were symptomatic, 20 had en-

doscopic findings suggestive of thermal injury and 7 were intubated. On the other hand 40 were asymptomatic but 13 had endoscopic findings of minor thermal injury of upper airway thus they underwent flexible laryngoscopy twice. In the asymptomatic group 1 was intubated prior the deterioration of his clinical status as the patient had P.H of CDH and COPD. Cricothyrotomy was not performed in any patient. Among the intubated patients 4:8 underwent tracheotomy 5 days later prior of the thermal respiratory injury and the essential respiratory toilet. The other 4 were tracheotomised >10 days prior to prolonged mechanical ventilation.

Conclusions: The airway management in burn patients is a medical challenge for the otolaryngologist in the Emergency Department as it demands evaluation of the patient from A&E till his discharge.