

Airway management in upper body burned patient.

A case report

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Background:

Early orotracheal intubation is critical in managing airway burns due to swelling and potential obstruction. This case report describes a 66-year-old male with 36% total body surface area burns predominantly affecting the face, neck, and upper extremities. We detail the circumstances leading to early intubation, the techniques used, and post-intubation care. This case illustrates the necessity for timely airway intervention to ensure ventilation and reduce morbidity associated with burn injuries.

Keywords: Airway management, burns, orotracheal intubation.

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Case Report

General Surgery



Airway injuries from thermal burns pose a significant risk of obstruction characterized by edema, which can develop rapidly in burn patients. Management of these patients demands immediate and effective airway control. In adults, particularly those of advanced age with extensive burns, the risk of airway compromise increases significantly, necessitating proactive measures.

Case report

This case report focuses on the effective utilization of early orotracheal intubation in a 66-year-old male with 36% total body surface area burns distributed across the face, neck, and upper extremities, underscoring the importance of rapid airway management in this vulnerable population.

The orotracheal intubation was successfully performed on the first attempt, with the endotracheal tube confirmed to be properly positioned. Oxygen saturation stabilized at over 95% following ventilation support initiation, and the patient was effectively transferred to the intensive care unit (ICU) for continuous monitoring. The initial post-intubation assessment indicated no immediate complications, although the patient continued to require aggressive airway management strategies throughout the hospitalization^[3].

Discussion

The case illustrates the vital importance of early orotracheal intubation in patients with extensive burns and potential airway involvement. Research indicates that failure to secure the airway promptly can lead to severe outcomes, including respiratory failure, increased morbidity, and the need for surgical interventions^[4]. The decision to intubate early was supported by clinical evidence highlighting that advanced age correlates with increased mortality in burn patients^[5].

In our patient, the combination of facial and neck burns increased the risk of rapid airway obstruction. Studies suggest that airway edema develops within hours post-injury, necessitating preemptive measures^[6]. Employing standard protocols for sedation and analgesia proved beneficial, allowing for safer intubation and improved patient comfort during the procedure^[7].

Post-intubation management is crucial in burn care. Continuous monitoring of ventilatory parameters is necessary due to the dynamic nature of airway edema. Complications, such as accidental extubation or difficulty in ventilation, must be anticipated and addressed^[8].

Advanced monitoring techniques and continuous reassessment are recommended to adapt to

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Figure 1. Right Face side, A second degree burn is observed on the forehead, cheeks, chin and neck, as well as on the mustache.

changing conditions^[9]. These strategies significantly enhance patient safety by providing timely intervention when complications arise^[10].

Conclusion

This case underscores the necessity for early orotracheal intubation as a standard of care in burn patients with significant airway involvement. Rapid assessment and intervention can prevent substantial morbidity associated with delayed airway management. Ongoing education and adherence to clinical guidelines for managing burn injuries will facilitate better outcomes in this patient population.



Figure 2. Burns on the face, neck, as well as arms and hands.

Conflicts of interests

There was no conflict of interest during the study, and it was not funded by any organization.

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