APPROACH TO AIRWAY MANAGEMENT IN BURNS

A CLINICAL CASE

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INTRODUCTION

The **burn patient is a polytrauma** and their approach should follow established trauma algorithms. The primary survey and stabilisation aim to identify and treat life threatening situations. **Airway assessment is therefore a priority and early intubation plays an important role** in symptomatic patients with inhalation injuries or in facial, oral and oropharyngeal burns that compromise airway patency. Nonetheless, intubation is not innocuous. Therefore, we should weight risks and benefits to avoid unnecessary procedures and iatrogenesis.

CLINICAL CASE

Male, 50-year-old, burn caused by gas cylinder explosion.

Local Hospital – A&E
(30 minutes after the burn)

A) Airway

- Burn to the head, left side of face and neck.
- Oedema of tongue and lips.
- Dysphonia.

B) Breathing

- Eupnoeic.
- O2 Saturations: 98%

C) Circulation

- BP 224/115 mmHg
- HR 74 bpm

D) Disability

- GCS 15/15

E) Exposure

- **TBSA 26%**
- Superficial Partial Thickness to head, neck, thorax, circumferential left arm and forearm, circumferential to right forearm, left thigh.
- Mid dermal to left side of face and left lumbar area.

Plan:

- **Orotracheal intubation** (laryngoscopy grade III, oedema of the base of the tongue and supraglottic area with narrowing of the upper airway tract,
- Resuscitation according to the **Parkland Formula**.
- **Transfer to Burns Centre** 2h after admission.

Emergency Room
(4 hours and 45 minutes after burn)

Seen by Plastic Surgery. Superficial partial thickness to face, neck, abdomen and upper limbs.

Bronchofibroscopy: no changes to tracheobronchial airway.

Burns Centre
(7 hours and 15 minutes after burn)

26 hours after burn – no oedema of the tongue or lips, laryngoscopy with no oedema or erythema of the upper airway. **Extubated safely** with no issues.

Transferred back to local hospital 48 hours after burn for continued care.

DISCUSSION

Airway patency assessment is paramount in the assessment of the burn patient. Airway compromise is an indication for early oro tracheal intubation. Not to intubate when clinically indicated is associated with greater risks when compared to unnecessary intubation. It's essential to carefully evaluate need for maintaining intubation, after stabilising the patient, and **opt for early extubation in the presence of extubation criteria to reduce risk of**

REFERENCES

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