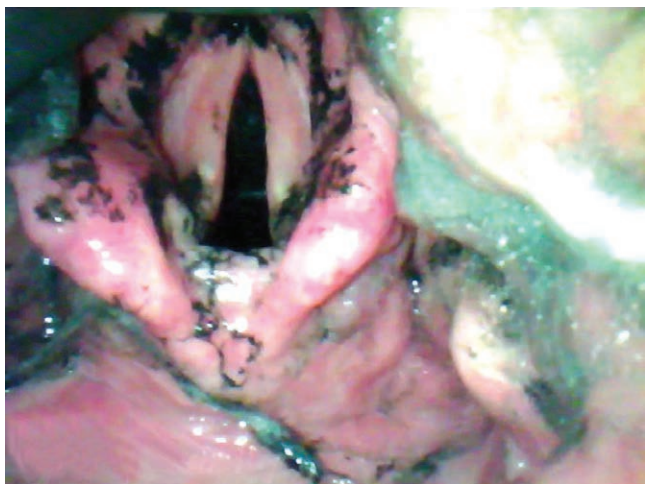


Images in Anesthesiology: Video Laryngoscopy for Intubation after Smoke Inhalation

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SMOKE inhalation (Supplemental Digital Content, <http://links.lww.com/ALN/B432>, video of the entire procedure with commentary) produces injury through direct thermal injury, chemical injury from soot and other irritant compounds, and systemic toxicity. In addition to direct thermal trauma, airway edema occurs as a result of exposure to inhaled components such as aldehydes, ammonia, and phosgene, as well as fluid resuscitation. This can rapidly lead to airway obstruction and hypoxia, making early evaluation and frequent reassessment essential. Obvious signs of injury include facial burns, soot at the nose and mouth, singed facial hair, and carbonaceous sputum. Patient characteristics such as stridor, hoarseness, and inability to tolerate secretions also suggest upper airway injury.

Recommendations for early intubation state that oral burns and stridor are strong indications for immediate intubation.^{1,2} Use of accessory respiratory muscles, tachy-

pnea, and hoarseness are additional signs for concern, although the decision to intubate is largely clinical in most cases. Other factors that may play a role include other injuries, burn size, need for transport, and inadequate gas exchange. Most centers continue to use fixed indications, such as the presence of any inhalation injury or observed swelling, for intubation.³

When intubation is required due to pending airway compromise or concern for worsening edema, use of a video laryngoscope provides members of the burn resuscitation team an opportunity to visualize the degree of edema, erythema, and soot deposition. The presence of significant upper airway particulate soot and erythema as seen in this image suggests a more distal distribution and potential need for bronchoscopy to assess for distal injury or to facilitate therapeutic interventions.

Competing Interests

The authors declare no competing interests.

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