

# 14 year-old 6 weeks s/p 40% total body burn with stridor for tracheostomy

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Objectives: After discussion of this case the participants should:

1. Understand the anesthetic considerations for patients with full stomach and airway obstruction.
2. Know the contraindications for succinylcholine in patients who have had large burns.
3. Understand the reasons for acquired tracheal stenosis in pediatric patients such as factors related to the endotracheal tube or thermal injury to trachea.
4. Be familiar with the acute management of pediatric burn patients.

## Case:

An otherwise healthy 14 year-old male suffered 40% total body burns during a house fire 6 weeks ago. He was initially stabilized at the local burn unit with IV fluids and blood products, mechanical ventilation, pharmacologic cardiovascular support, and antibiotics. He was intubated for 3 weeks and extubated successfully. Although he was hoarse immediately following extubation, he was weaned to room air within 3 days of extubation and was discharged to home 1 week ago.

This afternoon, his mother took him to the local ED for evaluation because of worsening respiratory distress. A CXR done there showed a narrowed subglottis. He was transferred to your hospital with a diagnosis of post-intubation subglottic stenosis for airway evaluation and likely tracheostomy. He arrives in the pre-op holding area with face shield oxygen, in moderate respiratory distress. VS: HR = 122, RR = 44, BP = 146/90 SpO<sub>2</sub> = 90%

## Questions:

1. What other information would be helpful in planning this child's peri-operative care?
2. How should anesthesia be induced in this patient?
3. Can succinylcholine be used in this case?
4. What factors might have predisposed this child to develop subglottic stenosis?
5. How might the subglottic stenosis have been prevented?
6. If the patient aspirated gastric contents, what should be done?
7. If this child were coming to the OR with stridor for airway evaluation within 24 hours of the burn injury, would things be managed differently?

## References

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