

From Bolus to Breath: Airway Management in Tracheal Stenosis

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BACKGROUND

- 75-year-old male with history of SCC of laryngeal epiglottis s/p partial laryngectomy, epiglottis removal, and tracheostomy 5 years prior to presentation.
- No documented subglottic stenosis or tracheal obstruction.
- No history of radiation or additional procedures.
- Presented to the ED with food bolus impaction which did not resolve with cola or glucagon.
- Transferred to our hospital for upper endoscopy under general anesthesia due to his altered airway anatomy.

AIRWAY MANAGEMENT

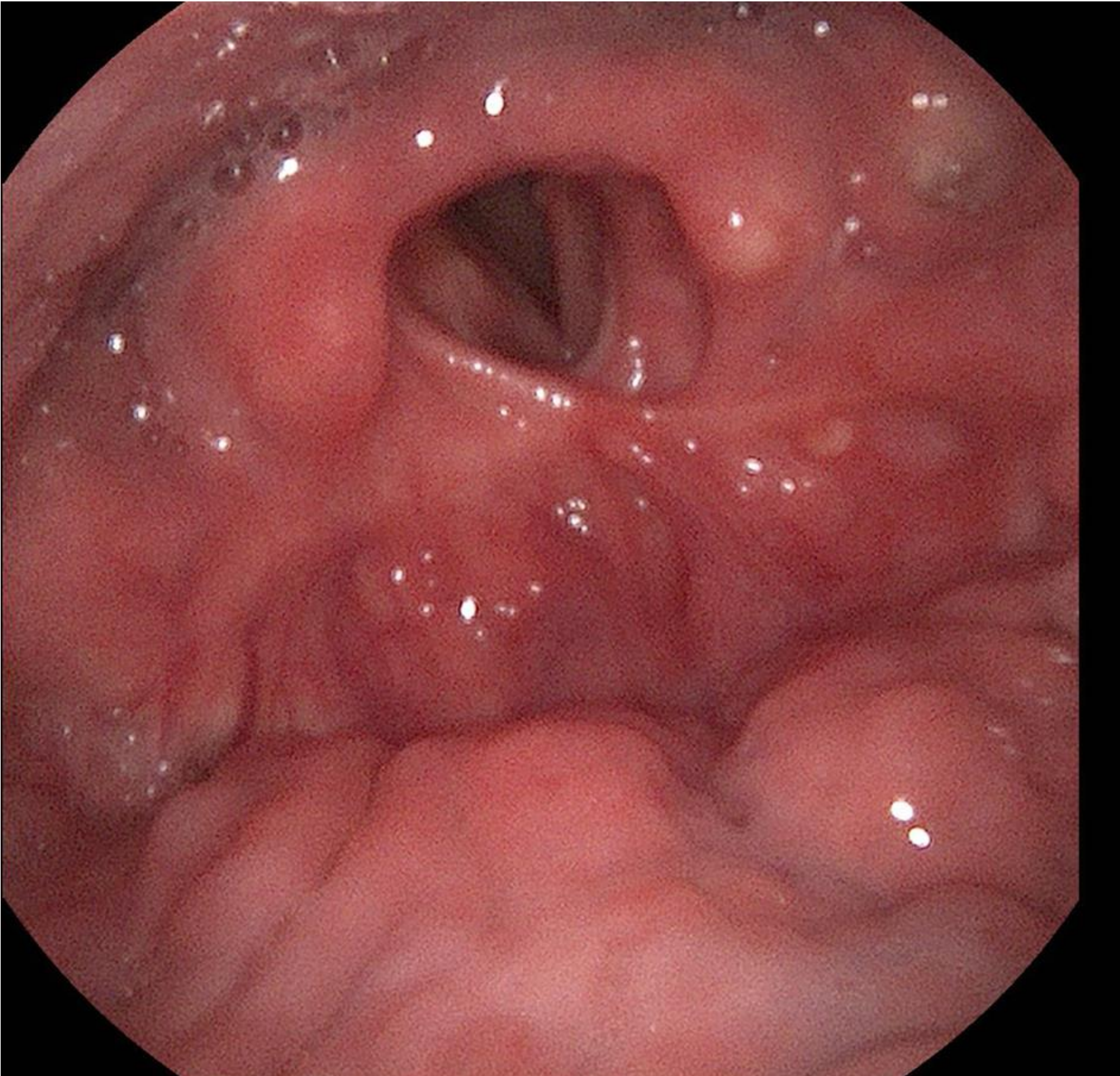
- Awake oral fiberoptic intubation
- 5.0 mm microlaryngoscopy tube
- Longer length for use in adult patients
- Maintained adequate ventilation and oxygenation throughout both attempts.
- Underwent upper endoscopy with safe removal of the food bolus.
- Extubated and discharged home after an uneventful recovery.

CASE SUMMARY

- RSI with 6.5 mm endotracheal tube using video laryngoscopy.
- Unable to pass the 6.5 mm ETT or airway exchange catheter through glottic opening.
- During this attempt, gastric contents and food particles were visualized coming up the esophagus.
- Immediate suctioning was performed.
- ETT tip maintained below the vocal cords and the cuff was inflated above the cords to secure the airway and prevent aspiration.
- Patient was manually ventilated until he regained consciousness and could protect his own airway.

TRACHEAL STENOSIS

- Known complication in 6-21% of patients with prior tracheostomy (1).
- ENT evaluated the patient with a nasotracheoscopy.



Mild “A-frame” deformity in the subglottis with 30% obstruction of the left side of the tracheal lumen and a web narrowing the anterior tracheal lumen.

DISCUSSION

- Highlights the intersection of difficult airway management and the risk of aspiration.
- Emphasizes the need for flexibility and innovation in airway management.
- Awake fiberoptic intubation is considered the gold standard when challenging airways and aspiration risk coincide (2).
- A study from 1996 demonstrated the feasibility of ventilating canines using an ETT with the cuff inflated above the vocal cords (3).

REFERENCES

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