

# BREATHING THROUGH A STRAW: A CASE SERIES OF TRACHEAL STENOSIS

Poster  
No. 173

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## Introduction

Managing airway due to tracheal stenosis can be a great challenge in the emergency department if not detected early.

## Case

We report two cases of tracheal stenoses presented to our emergency department.

Patient A was a 22-year-old gentleman with a background of disseminated tuberculosis and multiple history of intubation for various lung infections. He presented with progressive breathlessness over three days. Upon arrival he was alert but tachypneic and was speaking in short sentences. He had audible inspiratory and expiratory wheeze and auscultation of his lungs revealed generalised rhonchi. In view of impending respiratory collapse, the patient was prepared for intubation. Video laryngoscopy demonstrated the level of airway obstruction below the subglottic region suggestive of tracheal stenosis. The attempts at intubation were unsuccessful and he was temporarily ventilated using laryngeal mask airway prior to definitive airway management via an emergency tracheostomy.

Patient B was a 29-year-old gentleman who presented with worsening breathlessness and reduced effort tolerance over a period of one week. He had a history of intubation three months ago following a motor vehicle accident. He was alert, had good saturation and clear lungs on auscultation. However, he spoke in short sentences and with a high-pitched voice. Although chest x-ray and blood gas analysis were unremarkable, a cervical x-ray was done in view of a suspected upper airway obstruction. This revealed narrowing of the airway at C7-T1 region. Further investigation with CT neck and thorax corroborated the finding of a tracheal stenosis. This patient also underwent an emergency tracheostomy.

## Discussion & Conclusion

Tracheal stenosis is a known complication of prolonged or multiple endotracheal intubation. Therefore, it should be suspected in patients with upper airway obstruction and history of prior intubation. Tracheal stenosis is a subset of upper airway obstruction which may not be overcome by emergency cricothyroidotomy. Other potentially more effective alternatives are the fiber-optic and rigid bronchoscopes which could provide simultaneous visualisation and dilatation of the stenosis. These methods are also less invasive than an emergency surgical airway.

Keywords: airway, tracheal stenosis

## References:

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Figure 1-Patient A: Segment of tracheal stenosis seen in the axial view of CT thorax.

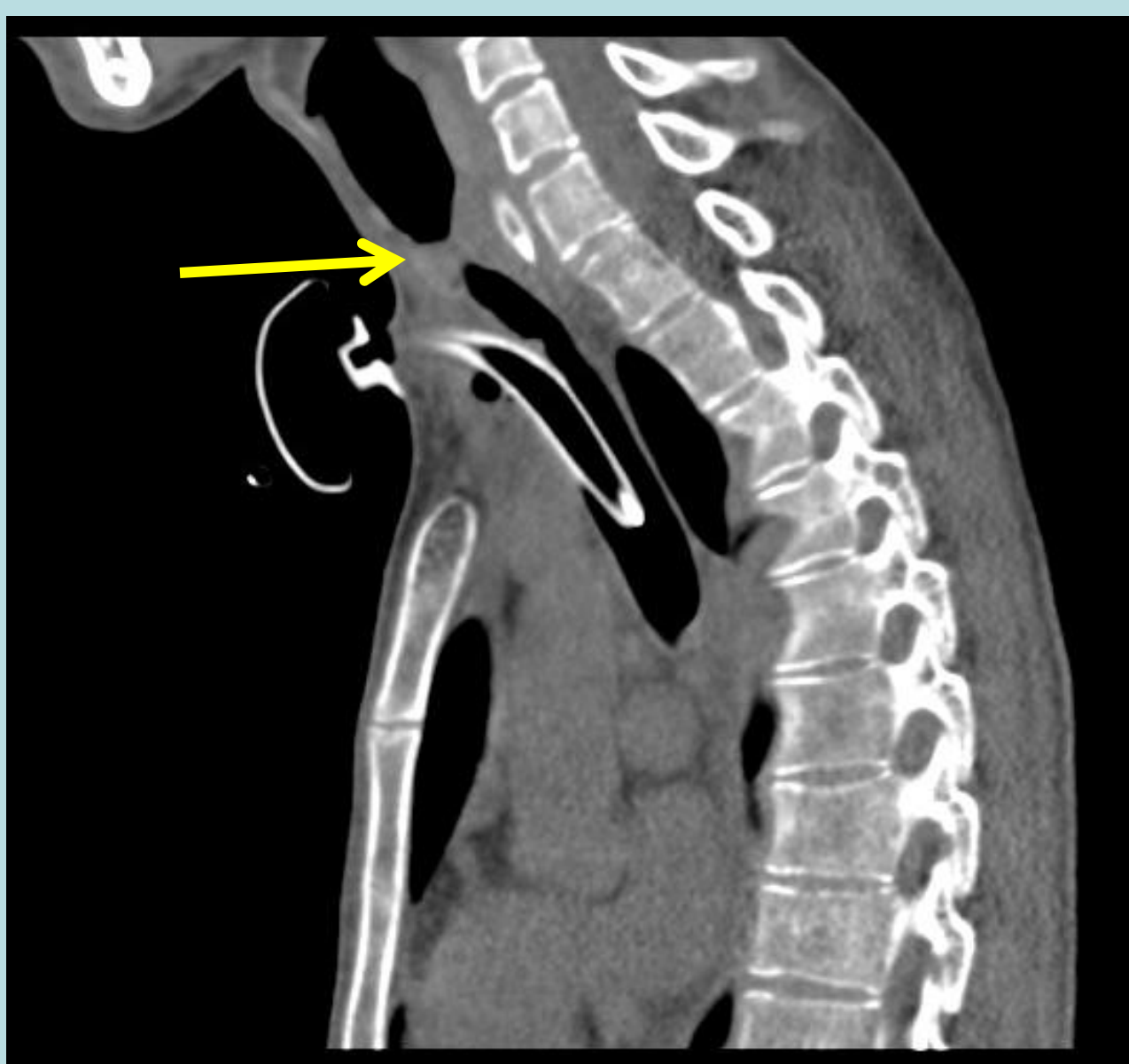


Figure 2-Patient A: Segment of tracheal stenosis above the tracheostomy seen in sagittal view of CT thorax.

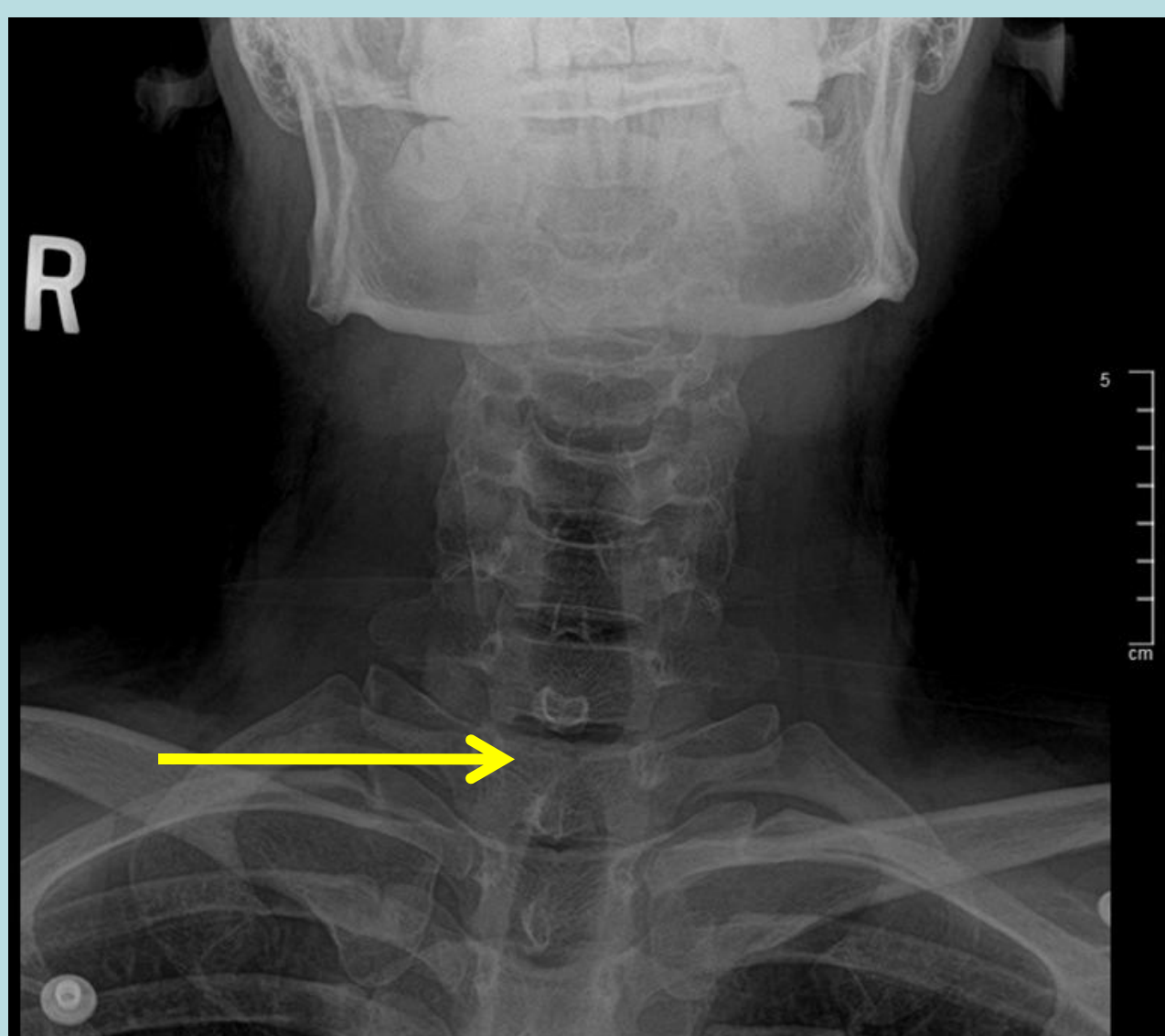


Figure 3-Patient B: Narrowing of the airway shadow seen in the AP view of cervical x-ray.

## Acknowledgement:

Department of Emergency Medicine, Hospital Universiti Sains Malaysia.  
There is no conflict of interest.