

Impacted tooth presenting as airway obstruction during spontaneous breathing trial

Sir,

Foreign body aspiration can cause airway obstruction, consolidation or collapse.^[1] However, the diagnosis can be difficult in critically ill patients in the intensive care unit who are not able to report acute symptoms. We present a case in which diagnosis of tracheal aspiration of an incisor was delayed and presented as airway obstruction during a spontaneous breathing trial (SBT).

A 60-year-old man was intubated to protect his airway after he developed an acute left subdural hematoma. 7 days later, he required re-intubation after he self-extubated during a sedation hold. Reintubation was straightforward and was performed with no obvious complications. However, the plain chest X-ray radiograph (CXR) revealed new right lower zone atelectasis [Figure 1].

Two days later, liberation from mechanical ventilation was considered. During SBT trial, the patient became agitated and so was re-sedated and treated with nebulized bronchodilators and chest physiotherapy. The next morning, the lung fields on the CXR appeared clear [Figure 2], so another SBT was performed. This time the flow-volume loop ventilator graphic demonstrated airway obstruction. Careful review of the second CXR [Figure 2], an opacity was seen projected within the lumen of the endotracheal tube (ETT). On the first X-ray [Figure 1], the same opacity was associated with the right lower zone atelectasis.

On extubation, a tooth was found to be almost completely occluding the lumen of the ETT [Figure 3]. The patient remained stable after extubation and the next day, he was transferred to a medical ward.

In this case, it is likely that the patient's tooth dislodged and fell into his trachea when he self-extubated. Unfortunately, as the patient was unable to report any symptoms, this was missed. The tooth must have subsequently moved, perhaps when the patient coughed and obstructed the distal end of the ETT.

Several lessons can be learned from this case. First, it highlights the importance of examination and documentation of dentition before and after manipulation of the airway. In the emergency situation, this may not be possible. However, after stabilization, the patient's dentition should be inspected to exclude the recent loss of a tooth.

Second, it reinforces the importance of having a low threshold of suspicion for foreign body aspiration in critically ill patients. This is particularly important when the X-ray demonstrates complications of airway obstruction such as atelectasis or a mechanically ventilated patient otherwise seems suitable for liberation but fails an SBT.

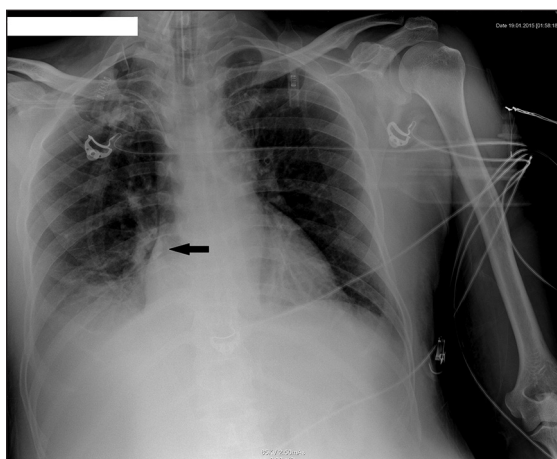


Figure 1: Tooth in lung

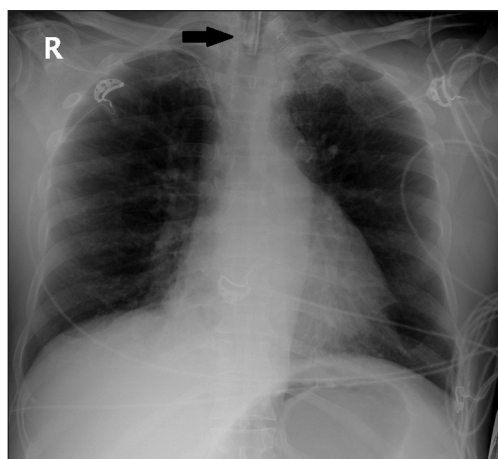


Figure 2: Tooth in endotracheal tube



Figure 3: Tooth with endotracheal tube

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

KHAN MF, ABDU MA, RAJENDRUM R, ULLAH H

Department of Critical Care, King Saud University Medical City,
King Saud University, Riyadh, Saudi Arabia


Address for correspondence:

Dr. Hameed Ullah,
Department of Critical Care, 95, 3rd Level Critical Care Building,
King Khalid University Hospital, P.O. BOX: 2925, Riyadh 11461,
Saudi Arabia. E-mail: hameed.ullah@aku.edu

Reference

1. Divatia J, Bhowmick K. Complications of endotracheal intubation and other airway management procedures. *Indian J Anaesth* 2005; 49:308-18.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

Access this article online	
Website: www.saudija.org	Quick Response Code 
DOI: 10.4103/1658-354X.169491	

How to cite this article: Khan MF, Abdou MA, Rajendrum R, Ullah H. Impacted tooth presenting as airway obstruction during spontaneous breathing trial. *Saudi J Anaesth* 2016;10:113-4.