A missing tooth after intubation

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DESCRIPTION

A middle-aged man developed hypoxemic respiratory failure requiring emergent endotracheal intubation for airway management. Postintubation chest X-ray revealed a foreign body located in the trachea (figure 1), which was later determined to be a dislodged tooth. Dental injuries during endotracheal intubation are estimated to occur on average 1.13% of the time, with an incidence ranging as high as 12.1% when patients have loose teeth.¹ Aspiration of foreign bodies such as teeth or food particles can lead to airway obstruction, aspiration pneumonitis and lung collapse. In the context of preoperative management for elective surgeries, evidence supports a proper oral examination to prevent foreign body aspiration.² Loose teeth, crowns or dental caries that can be addressed prior to surgery can decrease the number of perioperative dental complications. When emergent intubation results in tooth aspiration, the maxillary incisors (the left in particu-

lar) are most commonly involved due to the preferential left-sided manipulation of the endotracheal tube and stylet during airway management. Proper technique is important to prevent dislodging loose teeth during endotracheal intubation.³ Current evidence demonstrates that direct visualisation using a videolaryngoscope, (ie, Glidescope) reduces rates of dental complications by 10-fold when compared to traditional direct laryngoscopy technique.³

Learning points

- ▶ Foreign body aspiration and associated complications may occur during endotracheal intubation.
- ▶ Proper dental examination is important in preventing tooth aspiration preoperatively.
- ▶ Using a video laryngoscope method for intubation results in fewer dental complications.

Competing interests None.

Patient consent None.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Vogel J, Stubinger S, Kaufmann M, *et al*. Dental injuries resulting from tracheal intubation—a retrospective study. *Dent Traumatol* 2009;25:73–7.
- 2 Chadwick RG, Lindsay SM. Dental injuries during general anaesthesia: can the dentist help the anaesthetist? *Dent Update* 1998;25:76–8.
- 3 Rabiner JE, Auerbach M, Avner JR, *et al*. Comparison of GlideScope Videolaryngoscopy to Direct Laryngoscopy for Intubation of a Pediatric Simulator by Novice Physicians. *Emerg Med Int* 2013;2013:407547.

Figure 1 Anteroposterior view—chest X-ray revealing tooth lodged above the cuff of the endotracheal tube (red arrow).

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