

Bronchoscopic retrieval of an aspirated tooth following high-speed motor vehicle accident

Hamza Azam^{1,2}  | Peter Wu²

¹University of Sydney Clinical School of Medicine, Westmead Hospital, Westmead, New South Wales, Australia

²Department of Respiratory and Sleep Medicine, Westmead Hospital, Westmead, New South Wales, Australia

Correspondence

Hamza Azam, Department of Respiratory and Sleep Medicine, Westmead Hospital, Westmead, NSW, 2145 Australia.
Email: hamza.azam@sydney.edu.au

Associate Editor: Belinda Miller

Key message

A 28-year-old man aspirated a tooth into his right lower lobe bronchus following a high-speed motor vehicle accident. Initial retrieval attempts failed with a flexible bronchoscope, but a cryoprobe successfully dislodged and retrieved the tooth. Cryoprobe should be considered for bronchoscopic foreign body removal when conventional methods are unsuccessful.

KEYWORDS

aspiration, bronchoscopy, foreign body, trauma

CLINICAL IMAGE

A 28-year-old man required intubation after he was brought to the hospital following a high-speed motor vehicle accident. Examination revealed multiple injuries, including a fracture dislocation of the temporomandibular joint and multiple tooth avulsions. Computed tomography trauma series showed an aspirated tooth in the right lower lobe bronchus (Panel A,

arrow). After managing higher-risk injuries operatively, a bronchoscopy was performed through the endotracheal tube to retrieve the tooth, located in the anterior segment of the right lower lobe (Panel B). Initial retrieval attempts using alligator forceps and a snare were unsuccessful. However, a 2.4 mm cryoprobe successfully dislodged the tooth (Panel C), which was then retrieved via continuous bronchoscopic suction to ensure it adhered to the bronchoscope and removed en bloc.

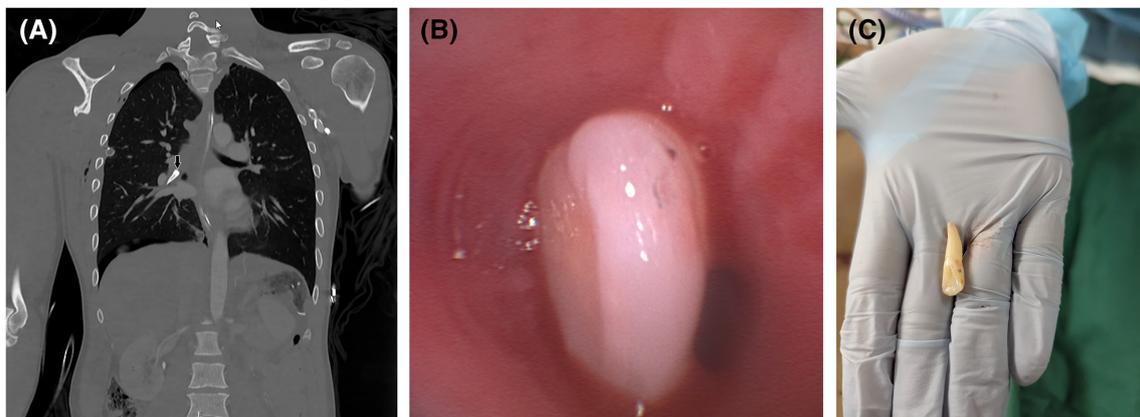


FIGURE 1 Panel (A): Computed tomography (CT) scan showing an aspirated tooth (arrow) located in the right lower lobe bronchus. Panel (B): Bronchoscopic view of the aspirated tooth lodged in the anterior segment of the right lower lobe bronchus. The tooth is visible within the bronchial lumen, obstructing the airway. Panel (C): The retrieved tooth.

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial-NoDerivs](https://creativecommons.org/licenses/by-nc-nd/4.0/) License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2024 The Author(s). *Respirology Case Reports* published by John Wiley & Sons Australia, Ltd on behalf of The Asian Pacific Society of Respirology.

Aspirated foreign bodies often lodge in the right main bronchus due to its wider diameter and more vertical orientation. Tooth aspiration is rare in adults and occurs more frequently in trauma victims. Removal is crucial to prevent complications like airway obstruction, atelectasis, and secondary infections. Following a prolonged hospital stay, the patient was eventually discharged for rehabilitation (Figure 1).

AUTHOR CONTRIBUTIONS

Hamza Azam and Peter Wu: Conception of the manuscript; drafting of the manuscript.

ACKNOWLEDGMENT

Open access publishing facilitated by The University of Sydney, as part of the Wiley - The University of Sydney agreement via the Council of Australian University Librarians.

CONFLICT OF INTEREST STATEMENT

None declared.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

ETHICS STATEMENT

The authors declare that appropriate written informed consent was obtained for the publication of this manuscript and accompanying images.

ORCID

Hamza Azam  <https://orcid.org/0009-0000-8577-837X>

How to cite this article: Azam H, Wu P. Bronchoscopic retrieval of an aspirated tooth following high-speed motor vehicle accident. *Respirology Case Reports*. 2024;12(8):e01444. <https://doi.org/10.1002/rcr2.1444>