Retrieval of aspirated dental equipment from a lung

Rosie Earle, MD · John Yee, MD, FRCSC · Raymond Tang, MD, FRCPC

Received: 9 May 2018 / Revised: 14 May 2018 / Accepted: 14 May 2018 / Published online: 25 May 2018
© Canadian Anesthesiologists' Society 2018

During dental treatment, an air-water syringe tip (Quick-Disconnect Syringe; A-dec, Newberg, OR, USA) was propelled into the trachea of a 68-yr-old man with a history of severe chronic obstructive pulmonary disease (COPD) and significant cigarette use. Normally, the syringe tip is secured to its handle by pushing it firmly past an O-ring connector. In this case, it is believed the tip was not securely fastened and thus became dislodged during use. Because the patient denied any symptoms of choking, coughing, or gagging, there was disbelief that he had aspirated the irrigating instrument. Nonetheless, he was sent to hospital, where a chest radiograph revealed an 8-cm long foreign body (FB) in the distal left mainstem bronchus (*panel A*). General anesthesia with endotracheal intubation and positive-pressure ventilation was utilized for its successful retrieval via bronchoscopy (*panel B*). Although maintenance of spontaneous ventilation is frequently employed during FB removal to avoid dislodgement, complete obstruction, or creation of a ball-valve effect,^{1,2} it was thought unnecessary in this case given the narrow shape, inflexible material, and distal location of the FB. Dental procedures are a known risk factor for adult FB

Figure Posteroanterior chest radiograph shows a densely radiopaque foreign body located in the left mainstem bronchus (*panel A*). Rigid bronchoscopy allowed removal of the foreign body, confirmed to be an 8 cm long metal air-water dental syringe tip (*panel B*) that had been aspirated earlier in the day during a dental procedure

R. Earle, MD (✉) · R. Tang, MD, FRCPC
Department of Anaesthesia, Vancouver Coastal Health,
Vancouver, BC, Canada
e-mail: earle.rk@gmail.com

J. Yee, MD, FRCSC
Department of Surgery, Vancouver Coastal Health, Vancouver,
BC, Canada

aspiration.¹ We believe the patient's heavy cigarette use and COPD may have contributed to blunting his airway reflexes and his lack of symptoms.

Conflicts of interest None declared.

Editorial responsibility This submission was handled by Dr. Hilary P. Grocott, Editor-in-Chief, *Canadian Journal of Anesthesia*.

Funding This work was supported by Internal Departmental Funds.

References

1. Hewlett JC, Rickman OB, Lentz RJ, Prakas UB, Maldonado F. Foreign body aspiration in adult airways: therapeutic approach. *J Thorac Dis* 2017; 9: 3398-409.
2. Fidkowski CW, Zheng H, Firth PG. The anesthetic considerations of tracheobronchial foreign bodies in children: a literature review of 12,979 cases. *Anesth Analg* 2010; 111: 1016-25.