Iatrogenic tracheal foreign body, plastic sleeve of stylet

Sir,

An anaesthesiologist may encounter unanticipated complications during endotracheal intubation.[1,2] We report a case of an unusual iatrogenic tracheal foreign body, a plastic sleeve of a stylet that was retrieved successfully using flexible bronchoscopy. There are various case reports of tracheal injury with the use of a stylet.[3] But to our knowledge, this is the first report of slipping of the plastic sleeve of the stylet into the trachea during intubation. A 30-year-old patient with carcinoma ovary with ascites was posted for laparotomy under general anaesthesia. Following 3 min of preoxygenation, modified rapid sequence induction with fentanyl 2 μg/kg, propofol 2 mg/kg followed by suxamethonium 2 mg/kg was performed. The patient was then intubated with a 7.5 mm cuffed endotracheal tube with a stylet. Once the tube crossed the vocal cord, the stylet was removed. A slight resistance was encountered during its removal. After confirming the correct tracheal placement of the tube, vecuronium 0.1 mg/kg was given IV, and patient was ventilated with oxygen and nitrous oxide and isoflurane. Later anaesthesiologist noted that white tip of the stylet was missing [Figure 1]. Fibreoptic bronchoscopy was performed through the endotracheal tube; a white strip of around 4cm long was noted just beyond the endotracheal tube [Figure 2]. Senior anaesthesiologist help was taken. Intravenous dexamethasone 8 mg was given to prevent airway oedema. Direct laryngoscopy was performed and the endotracheal tube was removed anticipating that the foreign body could be removed along with the tube. An attempt to suck out the foreign body with a fibreoptic scope was tried. But it was also not successful and the foreign body slipped further down into the right bronchus. The patient was reintubated with a larger 8.5mm endotracheal tube. Further help was sought from the pulmonology department and the foreign body was removed with foreign body forceps by flexible bronchoscope.[4] The incident was informed to the operating surgeon and patient's relatives. Surgery was completed and the patient's was extubated on table and was asymptomatic till discharge on the fifth postoperative day.

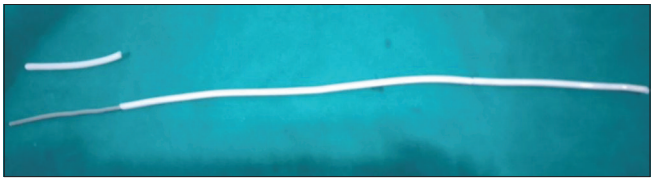

Figure 1: Broken plastic sleeve of the stylet

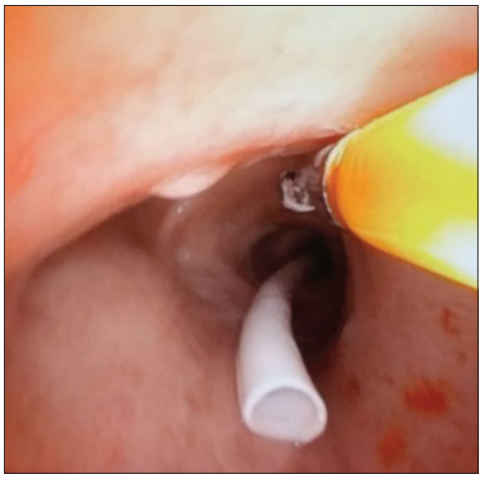

Figure 2: Bronchoscopic view of foreign body

Rapid sequence intubation should be performed by an experienced team and proper checking of equipment is important to minimise the complications which may arise during intubation.[1] The stylet should be lubricated to minimise the resistance while removing it. We recommend that stylets have to be checked for any damage before and after its use. It is always better to use plain metallic stylet. Also removing the endotracheal tube in this difficult situation might have been dangerous, as the aspiration of a foreign body is potentially a life-threatening event and may also cause chronic complications like pneumonia, bronchiectasis, lung abscess and foreign body granuloma. Repeated unsuccessful intubation attempts with a stylet could increase the risk of airway trauma.[3] The tip of the stylet should be placed within the endotracheal tube to prevent it from sticking out, and it should be removed after the endotracheal tube passes through the vocal cords.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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REFERENCES

1. Jain A, Naithani M, Chaudhary Z, Sharma P. Rare iatrogenic airway foreign body: The rivet from the fulcrum of the McCoy laryngoscope blade. Indian J Anaesth 2012;56:301-2.
2. Farkas G, Lederman D, Pradhan T, Harris K. An unusual foreign body aspiration requiring an unusual retrieval technique. J Thorac Dis 2018;10:3098-101.
3. Mısırlıoğlu M, Yıldızdaş D, Aslan N, Horoz ÖÖ, ÖzdenÖ. Tracheal rupture: A rare complication of endotracheal intubation. Turk Arch Otorhinolaryngol 2019;57:154-6.
4. Ma W, Hu J, Yang M, Yang Y, Xu M. Application of flexible fiberoptic bronchoscopy in the removal of adult airway foreign bodies. BMC Surg 2020;20:165. doi: 10.1186/s12893-020-00825-5.

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