Case report — An iatrogenic foreign body in the airway

Vikram Dhar*, Hiba Al-Reefy, Mike Dilkes

Department of ENT Surgery, St Bartholomews Hospital, West Smithfield, London EC1, London

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Abstract

We report a case of an iatrogenic foreign body in the airway. An 80-year-old patient who had undergone major head and neck surgery several weeks early presented as an inpatient with a persistent cough and recurrent chest infections. Fibreoptic nasendoscopy revealed the presence of a nasopharyngeal airway sitting vertically in the airway. This foreign body presented indolently as it was cannulated.

We suggest that in such patients, readers should be aware of this possible underlying iatrogenic cause of respiratory complications.

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Introduction

Foreign bodies in the airway often cause an acute and immediate obstruction and thus the diagnosis is straightforward. Nasopharyngeal airways are used in several circumstances, they include: improving the nasal airway when there is an oral obstruction, as a cannula for the fibreoptic scope when performing fibreoptic nasal intubation and as a cannula for suction catheters. The literature has not until now described the complication of the nasopharyngeal airway as a cause of respiratory complications.

Case report

We report a case of an iatrogenic foreign body in the form of a nasopharyngeal airway found in the glottis of an inpatient.

An 80-year-old male underwent a major resection of a squamous cell carcinoma of the floor of mouth and mandible, requiring mandibular and neck reconstruction by the maxillofacial surgeons. A tracheostomy was performed to prevent obstruction of the airway due to oedema etc. He was decannulated successfully 3 days later.

Eighteen days after surgery he needed a further general anaesthetic for debridement and resuturing of the flap. As he had limited mouth opening and he was recorded as a grade 4 intubation, he was successfully intubated using a per nasal fibreoptic technique. It is at this point that a nasopharyngeal airway may have been inspired, however he had also undergone chest physiotherapy, which can include suctioning per nasally through a nasopharyngeal airway. Five days later the patient started complaining of a persistent productive cough and subsequently insomnia. A chest infection was diagnosed.

The first ENT review 17 days after the second anaesthetic found the patient in some distress with a severe cough, no stridor and good oxygen saturation. On flexible nasendoscopy the lip of a nasopharyngeal airway was seen sitting in the glottis resting in the region of the false cords.
It was seen when the patient coughed that the nasopharyngeal airway would move up into the supraglottis by approximately one inch before resting again in the glottis. The foreign body was irritating his glottis and hence was the cause of his cough. The majority of the nasopharyngeal airway was sitting in the trachea but no acute stridor occurred as the foreign body was cannulated.

Direct laryngoscopy was performed, with atraumatic removal of this foreign body. On recovery the patient immediately felt relief and came to no harm as a result of the foreign body.

In the 17-day period after the patients' second anaesthetic, two ward chest X-rays were performed (Figs. 1 and 2) as there was a suspected chest infection. None of these chest X-rays were formally reported, but in retrospect as can be seen in the films below one can see the migration of the foreign body from the right main bronchus to the glottis.

Discussion

This is the first case reporting the aspiration of a nasopharyngeal airway, however two cases of iatrogenic aspiration of respiratory care equipment including a washer and an intubation stylet have been reported.1

The inhalation of such a commonly used device is potentially catastrophic to the patient with complications such as acute respiratory failure, asphyxia, mechanical trauma or perforation of the airway, bleeding of the airway due to erosive effect of the foreign body. Thankfully, in this case there were no long-term sequelae. The reason for the indolent course of presentation is that the foreign body was cannulated.

We suggest that in a patient who has had a recent history of an anaesthetic, nasal suction via a nasopharyngeal airway or even a trauma patient together with a history of unresolving, undiagnosed respiratory symptoms, the possibility of an iatrogenic foreign body should be recognised. Also, we feel that the traditional methodology of closely looking at the trachea and main bronchi is used when examining an X-ray film, especially when chest X-ray films are not formally reported.

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Reference