ABSTRACT

EDUCATIONAL OBJECTIVE: At the conclusion of this presentation, the participants should be able to discuss the incidence, presentation and management of oropharyngeal airway foreign body.

OBJECTIVES: To understand the principles of airway management in cases of airway foreign bodies.

STUDY DESIGN: Case report and review of literature.

METHODS: A 55 year old stroke patient with a four month history of worsening dysphagia following an endoscopy procedure was referred to the ENT clinic by the speech therapy department following the discovery of a dental prosthesis lodged in her oropharynx upon modified barium swallow examination. The dental prosthesis was impacted in the vallecula, completely obstructing view and access to the laryngeal introitus.

RESULTS: Removal of the dentures was accomplished via awake tracheostomy followed by direct laryngoscopy. While these procedures have previously been reported to remove impacted objects of the trachea either for airway management or instrumentation, this is the first reported case to our knowledge in which an oropharyngeal foreign body, lying in the transverse plane and completely obstructing access to the larynx, necessitated an awake tracheostomy.

CONCLUSION: This case highlights important principles of airway management in an ill patient with chronically impacted oropharyngeal foreign body.

INTRODUCTION

Retained foreign bodies in the oropharynx are not uncommon events and continue to be a major cause of morbidity and mortality amongst both pediatric and adult populations. Furthermore they constitute a significant source of otolaryngologic emergencies. While the main risk factors for foreign body aspiration, particularly in children, include lack of adult supervision, there is an increasing incidence amongst patients with altered mental status, dementia, and neurologic deficits. Compounding this problem is the incidence of dysphagia in stroke patients, reportedly as high as 78% [2]. Here we present an interesting case and management of the airway of a suspected iatrogenic implantation of a dental appliance in the oropharynx of a patient with profound dysphagia and neurologic deficits secondary to stroke.

CASE REPORT

A 55-year-old female with medical history significant for prior cerebrovascular accident with neurologic deficits including profound dysphagia and aphasia, presented to the ED outpatient clinic complaining of acute worsening of dysphagia following an esophagogastroduodenoscopy (EGD) at an outpatient facility. The patient reported loss of her dentures at the time of the endoscopy. Prior evaluation by speech therapy noted a dental appliance impacted in the oropharynx on modified barium swallow (MBD) (Figure 1). Upon flexible fiberoptic laryngoscopy, the denture appliance was lodged in the vallecula of the oropharynx, resting in a transverse plane, with bilateral obstruction of the laryngeal introitus.

As the suspected implantation event had been three months prior to presentation and attempts at office removal demonstrated immobility of the appliance, the patient was taken to the operating room for further management. Intraoperatively, attempts were made to remove the appliance with forceps, however due to its firm cohesiveness, concerns for causing further injury to the pharynx and comfort of the patient, an alternative strategy was necessary. Due to the inability to safely exhale the patient in the absence of adequate exposure of the laryngeal inlet, we subsequently performed an awake tracheostomy to secure the airway.

Following induction of general anesthesia, a direct laryngoscopy was performed to fully examine the extent of involvement by the appliance (Figure 2). The denture was easily mobilized from the vallecula on the right side, but it was more deeply embedded in the lateral pharyngeal wall on the left. This portion of the appliance required more force to mobilize and a deep laceration was subsequently noted at the lateral oropharyngeal wall.

Following extraction, the oropharynx was subsequently irrigated and examined for residual portions of the complex denture appliance, which consisted of several artificial teeth attached as separate units along with securing wires (Figure 3). The rest of the appliance was noted to be normal in appearance and free from injury or foreign bodies. An intraoperative neck x-ray, however, revealed a radio-opaque object in the right lateral pharyngeal mucosa, subsequently found to be a retained wire that was removed thereafter. The patient was kept NPO for two weeks following extraction to allow for healing of the oropharyngeal mucosa with feedings through her existing gastrostomy tube. Subsequent examination revealed resolution of the mucosal tear and marked improvement of the strength of her swallow.

REFERENCES