

CASE REPORT

Progressive Dysphagia Post Laryngeal Mask Airway Intubation:

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ABSTRACT

The laryngeal mask airway (LMA) is an important addition to the anaesthetic equipments; however its use may involve some important complications.

We report an unusual and potentially serious complication arising from the use of this equipment. A 58 year old man underwent cataract surgery under general anaesthesia with a laryngeal mask airway. He woke up complaining of sore-throat which progressed to dysphagia and odynophagia over the next three days. The patient was found to have necrotic tissue and defects on the posterior pharyngeal wall which was managed conservatively.

Key words: Laryngeal Mask Airway, Complications Dysphagia

INTRODUCTION:

Laryngeal mask airway (LMA) is a supraglottic airway management device designed to reduce the need for a more invasive method of airway management while offering a more reliable alternative to the face mask.¹ The LMA device has three main components; airway tube, mask and inflation line. The mask is designed to conform to the contours of the hypopharynx with its lumen facing the laryngeal opening when fully inserted using the recommended insertion technique, the distal tip of the LMA cuff presses against the upper oesophageal sphincter. Its sides faces into the pyriform fossae, and the upper border rests against the base of the tongue.

Sore-throat and dryness of throat are well documented side effects of LMA, however side effects due to improper use of the tube have also been documented.²

CASE HISTORY

A 58 year old gentleman presented to our unit with a three day history of progressive dysphagia and odynophagia. The problem was said to have started immediately after a short general anaesthesia using laryngeal mask airway (LMA) for a cataract surgery. The man has a background history of type 2 diabetes which was poorly controlled.

Examination revealed an obese gentleman in severe pain, running high grade pyrexia (39.5°C), and significant foetor oris. The man was constantly coughing and spitting purulent material. On flexible nasopharyngoscopy we found sloughs and necrotic tissue along the posterior pharyngeal wall extending to the level of the arytenoids. Soft tissue x-ray of the neck revealed air in the retropharyngeal space (figure 1). Purulent material was sent for culture and the patient immediately started on Intravenous Metronidazole and Cefotaxime. He was kept nil per ora and a computerised tomographic (CT) scan of neck and thorax ordered.

The neck CT showed gross prevertebral soft tissue swelling starting from the level of oropharynx to the level of cricoids cartilage. There were air levels communicating with the pharynx anteriorly, a 10cm defect along posterior pharyngeal wall and air levels extending to the carotid sheath on both sides (figures 2 & 3). In view of the above, and after microbiology consult, the patient was taken to theatre for debridement of the necrotic tissue and the wound was also flushed with hydrogen peroxide. The antibiotics were changed to Tazocin and clindamycin. Two weeks after presentation the patient suddenly started to spit and vomits blood, the main concern at this stage was risk of carotid blow out. The patient was therefore taken back to theatre, where no definitive bleeding point was identified, the posterior

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pharyngeal wall was debrided and the defect packed with surgical.

Figure 4 showed the picture of the defect in posterior pharyngeal wall four weeks into the treatment. After six weeks of intravenous antibiotics the patient was discharged home with no apparent complication.

DISCUSSION

Laryngeal mask airway (LMA) is a non-invasive airway device designed to reduce the need for a more invasive method of airway management. The main problems and complications of LMA are classified into mask malfunction, injury to the upper airway, and physiologic defect. Shahriari³ reported a case of complete separation of laryngeal mask from the tube with potentially serious consequences. Bruse et al⁴ reported a case of temporary vocal cord palsy from excessive pressure from LMA. Hypopharyngeal injuries are rare complications of intubation in which two clinical patterns may arise - dysphagia, soft tissue emphysema and leukocytosis or minor symptoms followed by progressive dysphagia.⁵

Our patient woke up from anaesthesia with sorethroat, which progressed to severe dysphagia and odynophagia over the next 72 hours, compounded by uncontrolled diabetes. The main concerns were aspiration with resultant pneumonia, potential mediastinitis which has a mortality of over 40% and the risk of carotid blow outs. In our patient the vascular surgeons advised a wait and watch policy, because the only option in case of a carotid blow out would have been sternotomy and then the question would be which great vessel to tie?

For nutritional support as it was not possible to pass a nasogastric tube, we opted for gastrostomy tube because of his special dietary needs.

Early recognition and treatment is of paramount importance in order to prevent mortality. Laryngeal mask airway, although considered safe, may still lead to perforation. Thorough evaluation of the difficult airway and atraumatic performance of direct laryngoscopy and intubation are mandatory.



Figure 1: lateral soft tissue neck x- ray showing air in retropharyngeal space.

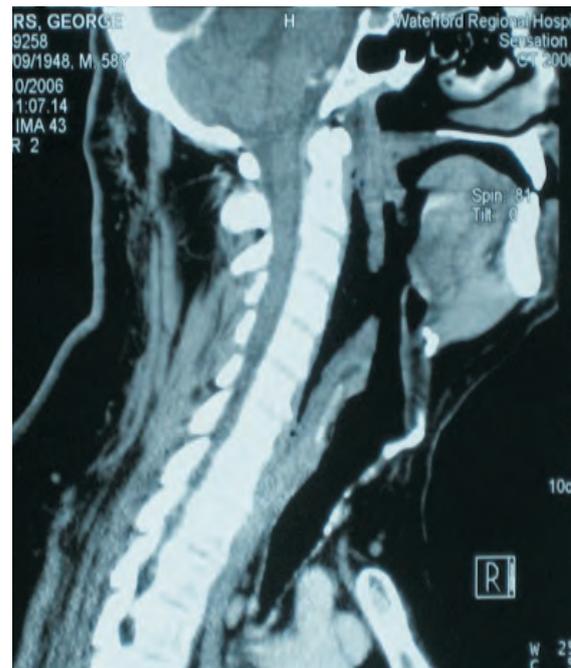


Figure 2: Sagittal CT Neck showing gross prevertebral tissue swelling from the level of oropharynx to the cricoids cartilage. A 10cm defect posterior pharyngeal wall (arrow)



Figure 3: Axial CT neck showing the extension of retropharyngeal space laterally to the great vessels (arrows)

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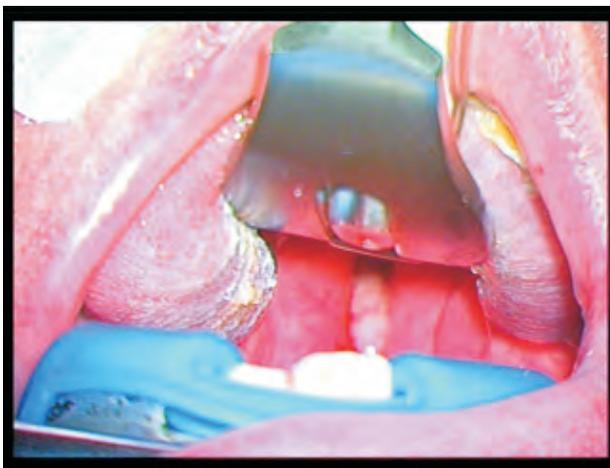


Figure 4: Showing defect in posterior pharyngeal wall (arrow)