Case Report

Awake blind nasal intubation in a patient with severe trismus due to submucous fibrosis

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Abstract

A 56 years old, woman having severe trismus due to submucous fibrosis. Patient gives history of chronic nut and tobacco chewing. Awake blind nasal intubation was done successfully. The procedure was uneventful. Unavailability of fiberoptic endoscope for intubation made us try awake blind nasal intubation.
Keywords: Awake blind nasal intubation, trismus, submucous fibrosis.

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INTRODUCTION

Oral submucosal fibrosis is a chronic, irreversible, highly potent pre-cancerous condition characterized by progressive fibrosis of the submucosal tissues. As the disease progresses, the jaws become rigid to the point that the sufferer is unable to open his mouth. The probable cause is chronic nut and tobacco chewing practiced in southeast Asia and India. Intubation in patients with extensive submucosal fibrosis is an anaesthetic challenge, more so without the aid of fibreoptic bronchoscope.

CASE REPORT

A 56 years old woman, thin built, was posted for surgery with extensive submucous fibrosis. On examination patient had severe trismus and the mouth opening was about 15mm only (Fig. 1). Physical examination and systemic examination were normal. Investigations reviewed were within normal limits. Awake blind nasal intubation was planned. The procedure was explained to the patient and she was informed that she will experience some amount of discomfort when the airway is being secured in an awake state. Written informed consent was obtained for awake intubation and tracheostomy.

Figure 1: IID 15mm

PROCEDURE

The patient was pre-medicated with injection Ranitidine 50 milligrams intramuscular, injection Metoclopromide 10 milligrams intramuscular and injection Glycopyrolate 0.2 milligram intramuscular 30minutes prior to surgery. Both the nostrils were prepared with vasoconstrictive drops. 5% Xylocaine jelly was put through the right nostril and patient was asked to inhale deeply till it reached pharynx. Pharynx was sprayed with 10% Xylocaine. Transtracheal injection of Xylocaine 2% with adrenaline was given after aspiration. Patient had cough at the time of injection indicating its correct placement. Superior laryngeal nerve was blocked with injection Xylocaine 2% with adrenaline. Portex cuffed endotracheal tube number 7 was passed through the right

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nostril, patient was asked to take deep breath. Bain's circuit was attached to the endotracheal tube. Oxygen 3 litres per minute was administered which helped in maintaining oxygenation. The bag movements guided us, as we reached epiglottis, the Bain's circuit was disconnected. With slight flexion of the neck the endotracheal tube was pushed which slipped through the vocal cords after two attempts. Patient had cough at that time. Anaesthesia was induced with injection Propofol followed by injection Scoline administered intravenously. The position of endotracheal tube was confirmed by auscultation. The cuff of endotracheal tube was inflated till the audible leak disappeared. Throat packing was done to prevent aspiration of blood. Anaesthesia was maintained on Nitrous oxide, Oxygen, Halothane. Respiration was contolled with injection Atracurium. Intraoperative period was uneventful. Injection Hydrocortisone 100 milligrams was given to reduce airway edema due to repeated intubation attempts. After surgery nuro-muscular blockade was reversed with inj Neostigmine and glycopyrollate. Throat pack was removed after sucking the oral cavity. Extubation done was uneventful. Vital parameters were monitored throughout procedure and found to be stable. Patient was shifted to recovery room with oxygen mask.

DISCUSSION

Oral submucous fibrosis is a chronic disease that affects oral cavity leading to stiffness of oral mucosa and causing trismus. Patients presenting with trismus pose difficulty in oral intubation. Anesthesiologist should carefully examine the airway of patients with trismus. Various techniques are available to secure the airway viz. fiberoptic bronchoscopy under local anaesthesia. Fiberoptic bronchoscopic intubation is best option for elective patients but has been considered difficult in maxillofacial trauma, patients with intraoral bleed. In this group of patients, securing the airway before induction of general anaesthesia adds to the safety of anaesthesia and helps minimize possibility of major complications. Awake intubation should also be considered in patients with history of difficult intubation, patients with questionable airway who are at high risk of aspiration, patients who have an unstable cervical spine, upper body morbid obesity and ventilatory failure. Airway management in submucous fibrosis depends on expertise and availability of equipment. Blind nasal intubation may be used although fiberoptic intubation is the technique of choice. In rare situations tracheostomy under local anesthesia can be done.

CONCLUSION

Awake fiberoptic intubation under topical anesthesia may be the ideal method to secure the airway. Unavailability of fiberoptic broncoscope, awake blind nasal intubation is the procedure of choice. Psychological and pharmacological preparation is must for successful outcome of this technique.

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