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Awake Blind Nasal Intubation– A Technique We Should Master

Sudhir W. Bhope[1*], Santosh Deshmukh

[1]Professor, Deparmtment of Anaesthesia, IIMSR, Warudi, Badnapur, Jalna, Maharashtra, INDIA.

[2]Consulting Anaesthesiologist, Aurangabad, Maharashtra, INDIA.

[*]Corresponding Address:

sudhir.bhope@yahoo.com

Case Report

Abstract: A 37 years old man having severe trismus due to submucous fibrosis on right side and Commando's operation done on the left side was posted for Laparoscopic Cholecystectomy. Awake blind nasal intubation was done successfully. The procedure was uneventful. Eventhough, fiberoptic endoscopic intubation can be done, we should not forget skill of awake blind nasal intubation.
Key words: Awake blind nasal intubation.

Introduction

Awake blind nasal endotracheal intubation is a modification of Sir Ivan Magill's technique of blind nasal intubation under ether anaesthesia.

The indications are

Deformities of the mouth, restricted mobility of temporomandibular joint due to various diseases, submucous fibrosis, big tumors arising from mouth.Nasal intubation is required when there is poor mouth opening, the oral route is inaccessible or when facial fractures involve the mandible or maxilla. Inability to use fibreoptic nasal intubation may not be limited to situations of unavailability (lack of equipment, expertise or experience) but also when there is bleeding or secretions in the airway.

Case report

A 37 years old man, moderately built was posted for Laparoscopic Cholecystectomy. Commando's operation was done on the left side for Carcinoma cheek 4 years back. On examination, patient had severe trismus, mouth opening was about 1.5 cm only, restricted neck movements and to add to the difficulty, patient had submucous fibrosis on the right side. (Fig 1,Fig 2). Physical examination and systemic examination was normal. Investigations were reviewed and were within normal limits. Considering the small opening of mouth, we planned to perform awake blind nasal intubation. The procedure was explained to the patient in detail and his cooperation was sought to which he fully agreed.

Procedure

The patient was premeditated with injection Ranitidine 50 milligrams intramuscular, injection Metoclopromide 10 milligrams intramuscular and injection Glycopyrolate 0.2 milligram intramuscular 30minutes prior to surgery. Nasal mucous membrane was decongested with Otrivin nasal 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 3 ml of 4% Xylocaine. Oxygen inhalation 2 litres per minute were continued throughout the procedure. Transtracheal injection of Xylocaine 2% with adrenaline was given after aspiration.Patient had cough at the time of injection indicating its correct placement. Endotracheal tube number 6 was passed through the right nostril till it reached epiglottic area. A small catheter was introduced through the endotracheal tube and Xylocaine 4% instilled through it to anesthetize the epiglottis and vocal cords. Endotracheal tube number 6 was removed along with the catheter. Portex cuffed endotracheal tube 8.5 lubricated with Xylocaine jelly was introduced through right nostril. Patient was asked to take deep breaths. 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 in the first attempt. Patient had slight 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. Anaesthesia was maintained on Nitrous oxide, Oxygen, Halothane. Respiration was contolled with injection Atracurium. Intraoperative period was uneventful. Postoperatively patient was reversed. Extubation was uneventful. Injection Hydrocortisone 100 milligrams was given intravenously .

Vital parameters were monitored throughout procedure and found to be stable. Patient was shifted to recovery room with oxygen mask.

Discussion

Patients presenting with trismus pose difficulty in oral intubation. 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 considrerd 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. To conclude, every anaesthesiologist should master the awake blind nasal intubation technique.Psychological and pharmacological preparation is must for successful outcome of this technique.

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Figure 1: Scar Showing Commando's Operation done on left side

Figure 2: Showing Submucous Fibrosis on right side