

A Case Study on Submental Intubation for Maxillofacial Traumatic Injuries

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Abstract: Complex maxillofacial injuries require sharing of airway between the surgeon and the anaesthesiologist. Nasal Intubation is precluded when there is associated injury of base of skull. Oral Intubation is not appropriate for the airway management for mandibulomaxillary fixation. Sub mental intubation is safe and useful alternative to tracheostomy in such scenario for short term intra-operative and postoperative airway management of patient with pan facial trauma.

Keywords: Sub Mental; Intubation; Maxillo Facial Trauma

Introduction

Sub mental Intubation has been used in establishing the airway in patient with maxillofacial injuries and known to be the safe and cost effective with no major postoperative complications. Here we describe the patient undergoing sub mental intubation posted for Interdental wiring and maxillalomandibula fixation.

Case Study

A 35 yr. old male patient with history of road traffic accident following vehicle collision was posted for Interdental wiring and Maxillo mandibular fixation because of having multiple fractures of bones of face along with fracture of base of skull were present in his CT Scan report. Initially airways get secured by oral Intubation. After application of standard monitors and preoxygenation, slow inhalation induction. Patient was kept on Spontaneous breathing. After controlled intravenous induction, direct laryngoscopy with Macintosh 3 size blade was performed. The proximal endotracheal tube connector was replaced with half size smaller tube connector and it was inserted orally and secured temporarily. A small incision was made in sub mental region. A curved haemostat was inserted through the skin incision to gain the access to the floor of the mouth on lingual surface. The proximal connector was removed and endotracheal

tube was pulled out through skin incision and once the proximal connector was reattached to endotracheal tube, it was sutured and secured. So oral intubation was followed with sub mental intubation by using 7.5mm flex metallic endotracheal tube. Throughout the procedure, adequate general anaesthesia was maintained by inhalation and opioids drugs. There was no compromise on respiratory parameters throughout the surgery and it was provided adequate surgical field. After completion of procedure, endotracheal tube was pulled back into oral cavity and sub mental incision was sutured. The patient was extubated awake without any post-operative complications.

Results

There was no compromise on respiratory parameters throughout the surgery and it was provided adequate surgical field. After completion of procedure, endotracheal tube was pulled back into oral cavity and sub mental incision was sutured. The patient was extubated awake without any post-operative complications. As a result, we can prevent number of major complications like infection, prolonged hospital admission and tracheostomy care expenses.

Conclusions

Submental intubation demands some technical skills but is a simple, effective, safe and reliable method of short term airway management of patient with complex facial trauma with skull base fracture. This may avert tracheostomy and its consequent complication in several such patient.

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