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AIRWAY MANAGEMENT IN A PATIENT WITH MAXILLOFACIAL TRAUMA BY AWAKE BLIND NASAL INTUBATION – A CASE REPORT

Anaesthesiology

Dr. Y. Anusha Third Year Postgraduate, Department of Anesthesia and Critical Care, Sri Venkateswara Medical College,Tirupathi

Dr. K.G. Sreehari Assistant Professor, Department of Anesthesia and Critical Care, Sri Venkateswara Medical College, Tirupathi

KEYWORDS

INTRODUCTION:
Maxillofacial injuries poses challenges like difficult airway, shared airway with surgeon. Anaesthesiologist concerns are preoperative airway assessment, type of intubation and alternative methods available. We report a case posted for open reduction internal fixation of fracture of left zygomatic arch, left ramus of mandible .

CASE REPORT:
A 27years old male involved in road traffic accident, admitted to SVRRGGH hospital with facial trauma, limited mouth Opening, left lower jaw swelling.

History suggests no Comorbidities.

Airway assessment:
mouth opening is restricted, admitting less than 2 fingers, Mallampati grading can't be assessed, Hyomental distance 3 fingers, Thyromental distance 7 cm, Neck movements normal. Right nostril more patent. ASA grade 1. Blood Investigations are normal.

CT head and neck revealed fracture of left zygomatic arch, left ramus of mandible.

Due to anticipated difficult laryngoscopy and Orotracheal intubation, **AWAKE BLIND NASAL** intubation is planned.

Patient is shifted to operating room,18G iv cannula secured. Standard monitoring with Pulse oximetry, NIBP,ECG done.Difficult airway cart kept ready.

PREPARATION OF AIRWAY:
NASAL: 30 minutes before procedure, 4 drops of xylometazoline was instilled in right nostril, 4%lignocaine soaked nasal pack kept.

Oropharynx is anaesthetised with 10% lignocaine spray.

Bilateral superior laryngeal nerve block: 2ml of 1% lignocaine was injected along greater horn of hyoid bone each side

Translaryngeal block: by penetrating cricothyroid membrane using 22G needle,4ml of 4% lignocaine was injected after aspiration of air bubbles.

INTUBATION:
7mm red rubber tube was passed via right nostril into pharynx, further by breath sound guided technique into glottis aided by atlantoaxial joint extension and neck flexion.

Bilateral air entry was confirmed on auscultation, with Etco2 and breathing bag movements when connected to bains circuit and red rubber tube is then exchanged with cuffed endotracheal tube over a bougie.

Premedication :
inj midazolam 1mg iv inj glycopyrrolate 0.2mg iv , Inj fentanyl 100mcg iv

Induction: Inj propofol 100 mg iv

muscle relaxant: inj vecuronium 6mg iv

Maintenance:
N2O : O2 –66:33%,Sevoflurane 1mac, inj vecuronium 1mg + 1mg iv

Reversal : inj glycopyrrolate 0.4mg +inj Neostigmine 2.5mg iv. Inj hydrocortisone 100 mg iv given intraoperatively.

Surgery lasted for one hour.No intraoperative adverse events. Patient is extubated once fully awake and obeying commands .

Later monitored in recovery room and then shifted to postoperative ward. Postoperative period uneventful.

DISCUSSION :
1) Maxillofacial trauma causes varying degrees of airway compromise, presents a major challenge to anaesthesiologist.
2) Surgery timing is carefully planned allowing tissue edema reduction and avoiding malunion.
3) Limited mouth opening presents with challenges like difficulty in laryngoscopy and vocal cord visualisation.
4) Alternative methods of intubation should be kept ready, such as fibreoptic intubation, sub mental intubation, Cricothyroidotomy.
5) Non availability of fibreoptic intubation in our setup made us to use this technique of awake blind nasal intubation.

CONCLUSION:
1) Awake-blind nasal intubation is safe, simple technique, offers better surgical access.
2) Success relies on patient cooperation and skill of anaesthesiologist.

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