IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 23, Issue 2 Ser. 5 (February. 2024), PP 50-52
www.iosrjournals.org

A Series Of Two Case Reports On Flexible Fibreoptic Bronchoscopy.

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Date of Submission: 11-02-2024 Date of Acceptance: 21-02-2024

I. Introduction :

Flexible Fibreoptic Bronchoscopy, first introduced in 1966 by Shigeto Ikeda is a minimally invasive procedure with a high diagnostic yield for Bronchial carcinoma, ILDs and as a therapeutic tool in removal of retained secretions, Bronchoalveolar lavage and Intubation in selected patients. FFB is a safe and easy procedure under topical anaesthesia in the experienced hands and is well tolerated by the patients..Pan facial injuries and maxillofacial fractures with anticipated inadequate mouth opening is a challenge for the anesthesiologist since he has to share the airway with the surgeon for the delivery of anaesthesia.

II. OBJECTIVES :

We report a series of two cases done in our institute where we described the technique of Fibreoptic bronchoscope for assisting the tracheal intubation and for its diagnostic yield in sputum smear negative Pulmonary Tuberculosis.

- One was a 21years old male with RTA and a complex maxillofacial trauma.
- Another patient was a 25 years old female with suspected Smear negative Pulmonary Tb.

III. CASE REPORTS :

Case Report 1 : Patient was a 21years/Male presented with A/H/O RTA from his bike with vomiting and maxillofacial trauma . No H/o seizure or any loss of consciousness . No co morbid illness .On examination, he was conscious .oriented. Patient was admitted and thereafter posted for fixation of maxillary bone.

Preoperative Assessment :

Airway : Mouth opening inadequate , Neck movements normal range ,TMD <2 fingers . Cardiovascular , respiratory and neurological were normal.. Patient was assessed to be fit under ASA 1 . General Anaesthesia and Fibreoptic Nasotracheal intubation was planned .

Anaesthetic management:

Informed written consent was obtained. Patient was kept NPO. Patient was shifted to operating room , baseline monitors connected. Intravenous access obtained and iv fluid started.

Xylometazoline drops were instilled in B/l nares and nebulization with 5ml of 2% lidocaine for adequate topical anesthesia obtained of upper respiratory tract.

Premedications: inj. Glycopyrrolate 0.2 mg IM , inj. Midazolam lmg , inj metoclopramide 10 mg IV

Induction :Inj.fentanyl 2mic/kg IV and inj.propofol 2mg/kg iv titrated dose .

B/L Internal branch of Superior laryngeal nerve block with 2ml of 2% lignocaine +2ml NS through Thyrohyoid membraneobtained.

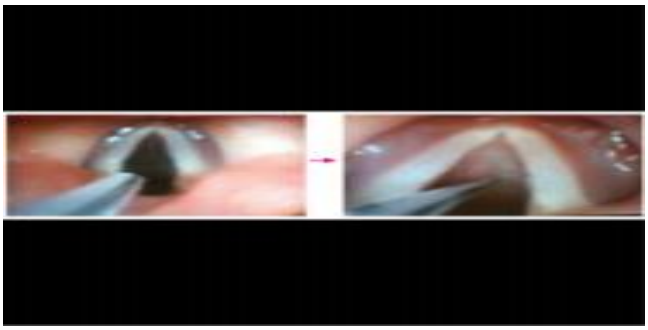
Fibreoptic inserted via nasal route

Inj. Succinyl choline lmg/kq IV given when Fibreoptic tip reaches before vocal cord under visualisation .

Patient was intubated with 7 size nasotracheal tube and ventilated with IPPV after proper fixation.

Maintenance : 02 +N2O +isoflurane 1– 1.5% MAC

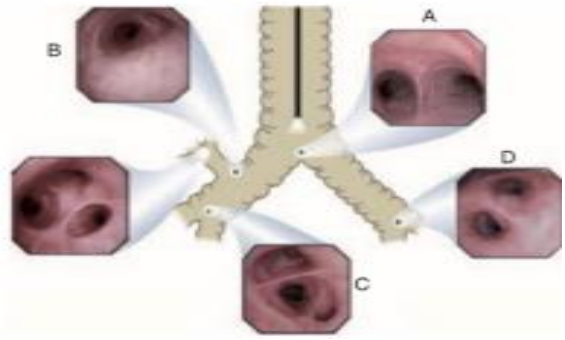
Intraoperative period was uneventful and no Significant haemodynamic changes were noticed . Patient was reversed after thorough suctioning and extubated fully awake .



Case Report 2 : Another patient is 25 years old female with H/o cough and significant weight loss with suspected Pulmonary TB and negative sputum /AFB smear (SSN PTB) . Patient was planned for a highly specific test i.e. CBNAAT of BAL fluid for M.tb detection and Rifampicin resistance before starting ATT .

Informed and written consent was taken .No history of prior ATT , smoking or any other comorbidities . Procedure was properly explained to the patient beforehand .

Procedure : Sedation was achieved with IM Midazolam and upper airway was anaesthetised with 10% xylocaine mouth spray . FFB is advanced via nasal route till it is wedged in the desired subsegmental bronchus based on radiological findings. Saline is infused in aliquots of 30 ml each followed by a gentle suction to collect the specimen for microbiological analysis. Total amount of saline used is 50ml with the aim of return of 10-30% of infused volume . No significant haemodynamic changes or any other complication were noticed .



IV. DISCUSSIONS :

1) ASA 1 patient with inadequate mouth opening was posted for elective surgery for maxillofacial trauma .General Anesthesia was planned and Fibreoptic nasotracheal intubation was done following sedation and local infiltration of SLN [2] . Perioperative period was uneventful. Patient was reversed after suctioning and extubated successfully . There were no clinically significant changes in 02 saturation , Mean Arterial BP (MAP) and Heart Rate (HR) as a consequence of Fibreoptic intubation.

2) Adequate topicalisation of upper respiratory tract allows easy tolerability of Fibreoptic bronchoscope for collection of BAL sample [3] for microbiological and immunological diagnosis of Pulmonary TB.

V. CONCLUSION:

1) Fibreoptic assisted Intubation is a gold standard technique for spontaneously breathing patients with anticipated difficult airways and much feasible in paralysed patients under GA.

2) Flexible Fibreoptic Bronchoscopy reveals a higher bacteriological confirmation of diagnosis in patients with sputum negative smear and high clinical evidence of Pulmonary TB with minimal changes in pulmonary function parameters [4] .

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