

Post Anaesthetic Sore Throat With Endotracheal Tube

M FAROOQ

Department of anaesthesia Lahore General Hospital.

Correspondence to: Dr Muhammad Farooq.

This prospective randomized study of 50 patients was designed to see the occurrence of sore throat in patients under going surgery under general anaesthesia without the use of muscle relaxants. The airway was secured with endotracheal tube. Patients were visited daily during first four post operative days and were questioned to detect any subjective features of sore throat. The incidence of sore throat in patients with 60%. Fourteen (28%) patients had moderate symptoms of sore throat, 16(32%) patients had mild symptoms of sore throat while 20(40%) had not symptoms of sore throat.

Key words: Sore throat, Endotracheal tube, Anaesthesia

Tracheal tube is an important tool employed by Anaesthesiologists in routine practice. It has made many procedures possible by securing airway. Insertion of endotracheal tube is associated with certain throat complaints in post anaesthetic period. The reported incidence of sore throat is 6-70% of all cases^{1,2}. No attempt has been successful to reduce the incidence of sore throat with help of lubricants³. Several investigators have implicated cuff design and intra cuff pressure as culprit^{4,5}. Among the most important complications are oesophageal placement local trauma due to movement in larynx and trauma to arytenoid cartilage⁶. Ulcers of tracheal mucosa are commonly seen against the tip of tube and folds of cuff³. Extubation may again trouble some procedure. Acute laryngo-tracheal oedema may be manifested by dyspnoea cough pain tachypnoea and tachycardia.

Material and Methods

This study was carried out in the surgical and eye wards of Mayo Hospital from January 1994 to September 1994. It was a prospective randomized study in patients who underwent elective lower abdominal and eye procedures of anticipated duration of less than 60 minutes. Fifty patients of either sex belonging to ASA status I & II of age ranging 20-50 years and body weight 40-70Kg were included in this study. Patients with history of active throat infections, chronic obstructive airway disease and bleeding disorders were excluded from the study. Patient will undergo endotracheal intubation after induction with thiopentone sodium 4-7mg per kg followed by 1-1.5mg/kg of Halothane 1-2% and spontaneous respiration. Extubation was performed at the end of procedure once N₂O & Halothane were excluded from gas mixture. Patients were followed for 4 days until the day of discharge if stay in hospital is shorter. A daily assessment of complaint was done.

Sore throat was labelled mild if it was associated with irritation, dysphagia and pain. It was labelled moderate if it was also accompanied with cough and severe when associated with all above complaints with dysphonia.

Irritation-Dysphagia+Pain Mild
Irritation-Dysphagia+Pain+Cough Moderate
Irritation-Dysphagia+Pain+Cough-Dysphonia Severe

Results

Fifty patients were included in the study the minimum age of patient was 20 years, maximum age was 50 years and mean age was 36.4400±1.564. Thirty were males and 20 were females, male and female ratio was 3:2. The minimum weight of patient was 40Kg and maximum 70 kg and mean weight of patient was 63.7400±1.376kg. The minimum duration of anaesthesia was 20 minutes and maximum 60 minutes and mean duration of intubation was 42.300±1.592. Subjective complaints of sore throat. Thirty patients (60%) complaint of post operative sore throat of various degree of severity. Out which 16(32%) patients had mild complaint were as 14(28%) complaint of moderate sore throat. Twenty (40%) patients remained free any complaints.

Table 1. Sore Throat

No	Mild	Moderate	Severe Complaints
20(40%)	16(32%)	14(28%)	0

Table 2. Pharyngeal irritation

Day-I		Day-II		Day-III		Day-IV	
Yes	No	Yes	No	Yes	No	Yes	No
30	20	28	22	23	27	05	45

Table 3. Cough

Day-I		Day-II		Day-III		Day-IV	
Yes	No	Yes	No	Yes	No	Yes	No
13	37	12	38	04	46	03	47

Table 4. Throat pain

Day-I		Day-II		Day-III		Day-IV	
Yes	No	Yes	No	Yes	No	Yes	No
28	22	21	29	07	43	02	48

Table 5. Dysphagia

Day-I		Day-II		Day-III		Day-IV	
Yes	No	Yes	No	Yes	No	Yes	No
17	33	07	43	0	50	0	50

No patient had complaints of dysphonia

Discussion

The maintenance of a safe and clear airway during the conduct of general anaesthesia for surgery demands that technique used should be associated with least complications. The endotracheal tube as an artificial airway is being used for about last 100 years. Changes have been occurring in the construction material, design,

curvatures the cuff, dimensions and characteristics of air seal provided. The uses of endotracheal tube is associated with certain complications which are now decreasing because of inert materials used in construction and better cuff design. Minor complications still do occur and may be attributed to presence of foreign body (endotracheal tube) in the trachea, effects of anaesthetics in dry gas mixtures, intra cuff pressure, airway reactivity of individual patients, personal habits like smoking and use of intravenous drugs which are likely to dry secretion. The mechanical trauma of stretch and friction during laryngoscopy and insertion of endotracheal tube is also additive. The earlier studies have reported and incidence of sore throat of 6-70% in early post anaesthetic day after endotracheal tube general anaesthesia. The incidence was

60% in my study.

References

1. Conway CM, Miller JS: Sore throat after anaesthesia. *Br J Anaesthesia* 1980; 32:219-23.
2. Grad Ma, Cruickshan LFD: Factors influencing the incidence of sore throat following intubation. *Cand Med Assoc J* 1961;84:662-85.
3. Stauffer, Olron DE, Petty TL: Complications and consequences of endotracheal tube and consequences of endotracheal tube and tracheotomy. *Am J Med. Jan* 1981:65-76.
4. Loesser EA, Orr DL, Bennett GM: Endotracheal cuff design and postoperative. Sore throat. *Anesthesiology* 1976; 45:685-87.
5. Mandoe H, Nikola J, Sen L, Lintrup Vet al: Sore throat after endotracheal intubation, *anaesth analg* 74:897, 1992.
6. McCombe AW, Philips DE, Rogers JH: Interarytenoid glottic bar following intubation. *J-Laryngol Otol Sep* 1990; 727-29.