MATERIAL AND METHODS
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The present study was carried out on 160 patients of either sex of A.S.A. Grade I and II at M.L.B. Medical College Hospital, Jhansi coming in for various routine surgeries.

SELECTION OF THE PATIENTS -

CRITERIA - The patients selected were those exhibiting the following criteria -

1. Patients exhibiting upper respiratory tract infection and other respiratory problems, were excluded from the study.

2. They should not have had a nasogastric tube passed within one week preceding operation.

3. The selected cases must require oral intubation only.

4. Patients must have a free and unobstructed airway so as to facilitate easy and smooth intubation.

5. Patients coming in for any oro-/naso-pharyngeal procedure were not included in the study.

6. Any type of pharyngeal instrumentation other than laryngoscope and tracheal tube was a discrediting to the selection for study.

7. Patients taking drugs which can alter the incidence of sore throat, were also excluded from the study.
GROUPING - After selection, the patients were divided into following groups -

A- **CONTROL CASES** - Where anaesthesia was administered by mask only.

B- The patients in this group were intubated by a cuffed or plain oro-tracheal tube. It was further subdivided into 4 groups as follows:

I) Plain tube (Unlubricated)
II) Cuffed tube
III) Plain tube (Lubricated by 0.9% sterile normal saline)
IV) Cuffed tube

Catheter used is high volume, low pressure type.

**MATERIAL**

| 1. | Endotracheal tubes | Red rubber | both cuffed and uncuffed |
|    | White rubber P.V.C. |            |                          |

2. Laryngoscope (Nacino-tosch)
3. Boyle's 'F' anaesthesia machine
4. Laryngeal mirror, for indirect laryngoscope postoperatively.
5. Drugs - Atropine, Thiopentone Sodium, Succinethonium Ether 0.9% normal saline, glutaraldehyde (cider) solution 2%, 0.1% chlorhexidine in 70% alcohol.
STERILIZATION - Endotracheal tubes and Magill's attachment of the Boyle's machine were first cleaned with soap and water using brush and then immersing the same in cidex solution 2% for 30 minutes. Endotracheal tubes were used after washing thoroughly with water again.

Laryngoscope blade and endotracheal connections were sterilised by chemical sterilisation using 0.1% chlorhexidine in 70 percent alcohol for 30 minutes.

PREPARATION OF THE PATIENT - Every selected patient was thoroughly examined both physically and systematically, giving special attention to upper and lower respiratory infection and any respiratory problem.

PREMEDICATION - 0.01-0.03mg/kg body weight injection atropine 1/24 45 minutes before operation.

ANAESTHESIA - Selected patients were given general anaesthesia by inducing with injection Thiopentone Sodium 3-4mg/kg and succinylcholine 1-1.5mg/kg then 100% oxygenation was given by mask and patient were intubated atraumatically with wide bore, Magill's selected Endotracheal tube, during direct laryngoscopy the larynx and oral cavity were again viewed for any inflammation and redness or congestion. No oropharyngeal air way was used.
Patients were maintained on oxygen, nitrous-oxide & ether. Duration of intubation was minimum of 60 minutes. During extubation larynx and oral cavity was again viewed by direct laryngoscopy.

Control cases were administered anaesthesia by mask using oxygen, nitrous-oxide and ether.

POSTOPERATIVE FOLLOWUP - Patients followed up post-operatively up to one week. During followup patients were interrogated about symptoms of sore throat viz. soreness, scratchy feeling in throat and/or hoarseness. Patient's oral cavity and larynx were viewed by laryngeal mirror after 24 hour of operation, on 3rd day and 7th day and any redness, congestion, oedema and ulceration were noted. Both subjective and objective findings by laryngeal mirror were noted and accordingly graded from 0-3 depending upon the severity of the problem-

0. No sore or scratchy throat at any time since operation and not evidences of hoarseness at the time of interview.
1. Minimal sore or scratchy throat for the same period and no hoarseness at the time of interview.
2. Moderate sore throat and/or some hoarseness.
3. Severe sore throat for the same period and/or obvious hoarseness at the time of interview.