26416 - EFFECT OF BEVEL POSITION IN FIBREOPTIC BRONCHOSCOPE ASSISTED OROTRACHEAL INTUBATION

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INTRODUCTION

Fibreoptic bronchoscope assisted tracheal intubation now has a well established role in anesthetic practice. Difficulty may be encountered while railroading the tracheal tube over the fibreoptic bronchoscope chord into the trachea due to impingement of the endotracheal tube on upper airway with the incidence ranging 23% to 46%.

AIMS AND OBJECTIVES: We compared the effect of bevel position of standard endotracheal tube on the ease of railroading endotracheal tube in fibreoptic bronchoscope assisted orotracheal intubation.

MATERIAL AND METHODS

After approval by hospital ethical committee a total of 30 adult patients were enrolled in the study. All patients acted as their own control. We compared the ease and time taken to railroad the standard endotracheal tube over fibreoptic bronchoscope in two different bevel positions of endotracheal tube - posterior (Group I) and lateral (Group II) in anaesthetized and paralyzed patients with atracurim besylate 0.5 mg/kg. Lungs were ventilated for three minutes with 1% isoflurane in 100% oxygen. Fibreoptic assisted intubation was done during the period of apnea using Pentax FI-10P2 Fibreoptic bronchoscope. Difficulty was graded as Grade 0: no hold up encountered; Grade 1: hold up on initial attempt, relieved by withdrawal and rotation of tube through 90° anticlockwise; Grade 2: Hold up on initial attempt requiring more than one tube manipulation, alteration in head and neck position or external laryngeal manipulation.

RESULTS

Patients were in age range of 36.83 ± 13.77 years. All patients were intubated successfully. Overall average time taken to do railroading was 17.61 ± 13.18 seconds. The time taken to do railroading in Group I (Bevel of endotracheal tube posterior facing) average time in seconds was 12.53 ± 11.23 was lesser as compared to Group II (Lateral facing bevel) average time in seconds was 22.86 ± 13.16 with high statistical significance (t-value 3.27 and p-value < 0.01). Most of the patients in Group I (Bevel of endotracheal tube posterior facing), it was easy to railroad (Grade 0) with 3 patients presenting little difficulty (Grade 1 in 2 patients and Grade 2 in 1 patient) as compared to Group II (Lateral facing bevel) where 20 patients had Grade of difficulty 1 and 1 patient had Grade of difficulty 2. The results were statistically significant with t-value of 4.85 and p-value < 0.01 . In patients with MallamPatti Score I and II there was no statistical significant difference in ease of railroading between Group I and Group II (t-value 0.31 and p-value > 0.10). However patients with MallamPatti Score I had easy railroading as compared to MallamPatti Score II. (p-value < 0.10 in Group I and p-value < 0.01 in Group II).

CONCLUSION: It is easy and quick to railroad endotracheal tube over fibreoptic bronchoscope with the bevel of tube facing posterior.