A CLINICAL STUDY TO COMPARE BETWEEN TWO DIFFERENT DOSES OF FENTANYL ADMINISTERED INTRAVENOUSLY TO ATTENUATE INTUBATION RESPONSE

DR. YOGANARASIMHA N*; DR. RAGHAVENDRA TR**; DR. RADHA MK***; DR. MAMATHA HS****
*Assistant Professor
Department of Anaesthesiology,
Adichunchanagiri Institute of Medical Sciences, Mandya, Karnataka, India
**Associate professor,
Department of Anaesthesiology,
Adichunchanagiri Institute of Medical Sciences, Mandya, Karnataka, India
***Professor and HOD
Department of Anaesthesiology,
Adichunchanagiri Institute of Medical Sciences, Mandya, Karnataka, India
****Post Graduate
Department of Anaesthesiology,
Adichunchanagiri Institute of Medical Sciences, Mandya, Karnataka, India

Abstract

Background: The cardiovascular response to endotracheal intubation is of concern to patients with coronary artery disease and cerebrovascular disease. Aim of study: This study was conducted to compare the efficacy of fentanyl, 2 mcg (microgram)/kg and 4mcg/kg in attenuating the haemodynamic response to endotracheal intubation. Methodology: This prospective randomized study was performed on 90 patients aged between 20-60 years (ASA grade I&II) scheduled for elective surgeries were allocated into three groups; C (control) receiving nothing, F2 and F4 received fentanyl 2 mcg/kg and 4mcg/kg IV respectively 5 minutes prior to intubation. Patients were premedicated with Glycopyrolate 0.2 mg and Midazolam 1 mg IV and induced with Thiopeptone 5mg/kg followed by succinylcholine 1.5mg/kg. HR (Heart rate), SBP (Systolic Blood Pressure), MAP (Mean arterial pressure) was recorded at pre induction, post induction and 1,3,5,7, 10 minutes following intubation. Results: One minute post intubation values of SBP, MAP were significantly less in the study groups than control group(\(p<0.001\)) and significance persisted up to 10 minutes. Again, significant variation observed between F2 and F4, post intubation persisted up to 10 minutes. Increase in HR was less in study group than in control group (\(p<0.001\)) but the significant difference in HR between F2and F4 was present up to 5 minutes following endotracheal intubation. Conclusion: Fentanyl given in the dose of 4 mcg/kg IV 5 minutes before intubation is a simple and practical method of attenuating the pressor response to intubation with minimal side effects. This attenuation response was significantly superior to that of fentanyl 2 mcg/kg.

Key words: Endotracheal intubation, attenuation of response, Fentanyl, Systolic blood pressure, Mean arterial blood pressure, Heart rate.