

Dexmedetomidine: An Advantage for Reducing Intraoperative Anaesthetic Demand

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ABSTRACT

The aim of this study was to determine whether dexmedetomidine attenuates hemodynamic response to intubation & reduces perioperative anaesthetic requirement. Sixty ASA I & II patients scheduled for elective surgery of duration 3 hrs or more were randomly selected. Patients were divided into two groups: Group A (n=30) received halothane-fentanyl-saline and group B (n=30) received halothane-fentanyl-dexmedetomidine. Dexmedetomidine infusion in a dose of 1 µg / kg was given over 10 min. before induction of anaesthesia and was continued in dose of 0.2-0.7 µg / kg / hr. until skin closure. All patients were induced with thiopentone, fentanyl and rocuronium. Hemodynamic variables were continuously recorded. The need for thiopentone and halothane was decreased by 25% and 30%, respectively, in dexmedetomidine group as compared to the control group. After tracheal intubation, maximal average increase in systolic, diastolic blood pressure and heart rate was 10%, 10% and 5%, in dexmedetomidine group, as compared to 35%, 30% and 25% in control group, respectively. Fentanyl requirement were 33% less in dexmedetomidine group. It is inferred that dexmedetomidine attenuates hemodynamic response to intubation and has anaesthetic sparing effect.