

Comparison of Effect of Dexmedetomidine Versus Lignocaine on Haemodynamic Response and Quality of Extubation In Patients Undergoing Interventional Neuroradiological Procedures: A Randomized Double-Blind Interventional Study

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Abstract

Background and Aims: Haemodynamic and airway responses during and after extubation may be precarious in neurosurgical patients. We aimed to compare the effects of dexmedetomidine versus lignocaine on haemodynamic response and quality of extubation in patients undergoing interventional neuroradiological procedures. **Material and methods:** This prospective study was conducted in a randomized double-blind manner on a total of 80 patients of either sex aged 20-50 yrs of ASA grades I, II & III who were randomly allocated into two groups (40 in each group). In Group A inj. Dexmedetomidine 0.5mcg/kg i.v and in Group B - inj. Lignocaine 1.5mg/kg i.v was given as a single bolus in 10 ml normal saline, at the end of the procedure. Haemodynamic variables (HR, SBP, DBP, MAP) were recorded at extubation, 1, 3, 5, 10, and 15min after extubation. Quality of extubation, sedation score and side effects (bradycardia, hypotension, nausea & vomiting) were also noted. Statistical analysis was performed by using the student-t-test and Chi-square test (significant p-value \leq 0.05). **Results:** The SBP, DBP and MAP were significantly higher in group B than in group A at extubation, 1min, 3min, 5min, 10min and 15min post-extubation whereas the significant difference in HR was observed only at extubation and 1min post-extubation (Group B > A). Dexmedetomidine produced a higher sedation score grade 2 (73.68%) than lignocaine (20.51%) with better quality of extubation and nonsignificant side effects. **Conclusion:** Dexmedetomidine administered 10 min before extubation effectively attenuates the haemodynamic and airway responses during extubation as compared to Lignocaine.

Keywords: Dexmedetomidine, Lignocaine, Interventional, Extubation, Haemodynamic