

A Comparative Analysis of Perioperative Hemodynamic Stability with Dexmedetomidine and Clonidine Infusions in Patients Undergoing Laparoscopic Cholecystectomy

P Venketashwar Reddy

Dr. P Venketashwar Reddy, H.No.10-3-230, GCR Residency, G2 Vaninagar Colony, Road No 2, Vidyanagar, Karimnagar-505002. Email:venkyreddy4u@gmail.com

Abstract

Background: The present study has been conducted to compare the beneficial effect of the two alpha 2 agonists Clonidine and Dexmedetomidine in maintaining the perioperative hemodynamic parameters during laparoscopic cholecystectomy. **Methods:** The present Double-Blind Randomized Control Trial was conducted in the Department of Anesthesiology, Prathima Institute of Medical Sciences, Naganoor, Karimnagar under general anesthesia. A total of n=45 patients randomly allocated in three groups, Group I (Placebo group), Group II (Clonidine Group) and Group III (Dexmedetomidine Group) of n=15 patients each, undergoing elective laparoscopic cholecystectomy, under general anesthesia were studied. The patients received preloaded and coded study drugs as infusion Normal Saline, Clonidine 4µg/kg/hr and Dexmedetomidine 0.4µg/kg/hr respectively at the rate of 0.08ml/kg/hr. **Results:** Sex, age, weight and duration of surgery were comparable in all the three groups. Both the drugs, Clonidine and Dexmedetomidine, maintained cardiovascular stability during laparoscopic cholecystectomy. But clonidine appears more effective in maintaining perioperative cardiovascular system stability during laparoscopic cholecystectomy. Besides, the isoflurane requirement in Clonidine Group and Dexmedetomidine Group was found to be considerably lower when compared to the Placebo Group. Also, the mean recovery time as indicated by the ability to vocalize the following extubation was found to be significantly less in Clonidine Group and Dexmedetomidine Group. **Conclusion:** Clonidine being more cost-effective than Clonidine can be recommended for maintaining cardiovascular system stability during laparoscopic cholecystectomy.