

# Postoperative Sedation after Off-pump Coronary Artery Bypass Grafting: Comparison between Dexmedetomidine and Propofol

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**Abstract** : Adequate sedation is necessary for patients who undergo coronary artery bypass grafting to prevent hemodynamic changes during and after artificial ventilation following surgery. We retrospectively studied 85 patients who underwent off-pump coronary artery bypass grafting (OPCAB) and were admitted to the surgical intensive care unit (SICU) from 2004 through 2009. Dexmedetomidine was given to 47 patients (dexmedetomidine group) and propofol to 38 patients (propofol group) for sedation after OPCAB. We evaluated the extubation time, hemodynamics, and postoperative pain treatment during their stay in the SICU. The hemodynamics and postoperative pain treatment with fentanyl were compared for the first 12 hours. There was no significant difference in the extubation time between the groups. There were also no significant differences in the mean arterial pressure between the groups. However, the heart rates were significantly higher ( $P < 0.05$ ) in the propofol group than in the dexmedetomidine group at 1, 2 and 3 hours after entering the SICU. In the dexmedetomidine group, significantly fewer patients ( $P < 0.05$ ) needed fentanyl for postoperative pain treatment. We concluded that dexmedetomidine is more beneficial than propofol for sedation after OPCAB with respect to a more stable heart rate and better postoperative pain treatment.

**Key words** : Postoperative sedation, Dexmedetomidine, Propofol, Off-pump coronary artery bypass grafting