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ORIGINAL ARTICLE REVIEW ARTICLE

Effect of a Single-dose Dexmedetomidine on Postoperative Delirium and Intraoperative Hemodynamic Outcomes in Elderly Hip Surgery; A Randomized Controlled Trial
Dexmedetomidine for Postoperative Delirium

Postoperative delirium (POD) is common in elderly patients.

Objective :
This study aims to investigate the effect of a single-dose dexmedetomidine (DEX) on postoperative delirium (POD) in elderly patients undergoing hip surgery.

Materials and Methods:
This prospective, randomized, double-blinded trial enrolled patients aged over 65 years who underwent hip surgery under spinal anesthesia.

Patients were assigned to either

Dexmedetomidine (DEX) 0.3–0.5 µg/kg IV

Normal saline solution (NSS)

Delirium assessments were conducted at PACU 24 hr 48 hr 72 hr postoperatively using the Confusion Assessment Method (CAM).

Results:
A total of 200 patients were randomized.

NSS N = 100 DEX N = 100

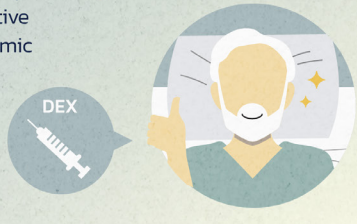
The incidence of **POD was significantly lower in the DEX** compared to the NSS (P < 0.001, RR 0.45, 95%CI: 0.28, 0.73)

This difference remained significant at each postoperative assessment time point.

There was no significant difference in sedation score and perioperative hemodynamics.

Additionally, the length of stay after surgery in the DEX was significantly shorter compare to the NSS (P=0.006).

Conclusion:
A single-dose dexmedetomidine can reduce the incidence of POD within 72 hours postoperatively in elderly patients undergoing hip surgery without compromising intraoperative hemodynamic stability.



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