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### Effect of postoperative epidural analgesia on morbidity and mortality following total hip replacement surgery in medicare patients

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**Background:** The addition of clonidine to a local anesthetic mixture has been shown to reduce the onset time, increase the intensity and duration of postoperative analgesia of ropivacaine for a single shot nerve block. The aim of this prospective, randomized, double-blinded study, was to evaluate the effects of adding clonidine on the continuous femoral block.

**Materials and methods:** 33 ASA physical status I-III in-patients, undergoing major knee surgery were randomly allocated to receive a femoral nerve block with 0.75% ropivacaine followed by a continuous infusion of 0.2% ropivacaine (Group 1, n = 12), a femoral nerve block with 0.75% ropivacaine and 1 µg/Kg clonidine followed by an infusion with 0.2% ropivacaine (Group 2, n = 11), or an initial block with 0.75% ropivacaine and 1 µg/Kg clonidine followed by infusion of 0.2% ropivacaine with 1 µg/ml clonidine (Group 3, n = 10). A blind observer evaluated the degree of pain, recovery of motor function and consumption of local anesthetic solution in the postoperative period.

**Results:** No differences in age, weight, height, gender distribution, intra-operative efficacy and postoperative pain relief were reported between the three groups. Total consumption of local anesthetic solution during the first 48 h was 320 (241 – 348) ml in Group 1, 337 (267 – 432) ml in Group 2, and 347 (294 – 443) ml in Group 3 (P = NS). Patients of Group 3 showed a larger proportion of motor block at 48 h (33%) as compared to Group 1 (0%), and Group 2 (10%) (P = 0.09).

**Conclusions:** Results of this preliminary study failed to demonstrate better postoperative analgesia with adding 1 µg/ml clonidine to 0.2% ropivacaine for continuous femoral nerve block after major knee surgery, while showing a trend toward a potentiation of motor nerve block. However, the small sample size does not allow to draw definitive conclusion.

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