



**COMPARATIVE STUDY B/W CLONIDINE AND DEXMEDETOMIDINE AS AN
ADJUVANT TO LEVO-BUPIVACAINE IN USG GUIDED FEMORO-SCIATIC NERVE
BLOCK FOR POSTOPERATIVE ANALGESIA FOR SURGERIES UNDER
SUBARACHNOID BLOCK**

Anaesthesiology

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ABSTRACT

Pain is one of the most distressing symptoms that a person can experience in their life. Post-op pain for patients undergoing lower limb surgeries is often intense. The lower limb procedures are amenable to regional anesthesia techniques which reduce neuro-endocrine stress responses, central sensitization of the nervous system and muscle spasm in response to pain stimuli as described by Pang et al¹

KEYWORDS**INTRODUCTION**

High resolution ultrasound guidance has been shown to improve block success rates and block onset times. It can be used to locate these nerves and allow for the deposition of smaller volumes of local anesthetic drugs adjacent to them. Various studies have investigated the role of novel analgesic adjunct to Femoro-Sciatic block for post operative analgesia. Clonidine & dexmedetomidine are a-2-adrenergic receptor agonist, has potent central and peripheral antinociceptive properties.

AIM

To compare the effects of Clonidine and Dexmedetomidine as an adjuvant to Levobupivacaine on sensory block and the duration of postoperative analgesia for USG-guided Femoro-Sciatic (Popliteal approach) nerve block in patients scheduled for surgeries post subarachnoid block.

METHODOLOGY

The procedure was initiated after written informed consent. After satisfying all inclusion and exclusion criteria, the enrolled patients were randomly divided into three groups.

Group A - (n=30) Control Group -30 ml of 0.125% Levobupivacaine (15ml in Femoral Nerve block and 15ml sciatic nerve block).

Group B - (n=30) Clonidine Group -30ml 0.125% Levobupivacaine +0.5ug/kg Clonidine (15ml in Femoral Nerve block and 15ml sciatic nerve block).

Group C- (n=30) Dexmedetomidine Group -30ml 0.125% Levobupivacaine +0.5 ug/kg Dexmedetomidine (15ml in Femoral Nerve block and 15ml sciatic nerve block).

All patients received subarachnoid blocking (SAB) using 26G Quincke's spinal needle in L3-L4 interspinous space with 15 mg of 0.5% hyperbaric bupivacaine. On regression down to T10, proper positioning (Supine) of patient was done and USG-guided Femoral Nerve Block was performed. Then, patients were given respective drug solutions.

CONCLUSION

Dexmedetomidine in a dose of 0.5 µg/kg as an adjuvant to Levobupivacaine 0.125% in FSNB after below knee surgeries increases the duration of post-operative analgesia and decreases the demands of rescue analgesia without causing any adverse effect.

REFERENCES

1. Pang WW, Hsu TC, Tung CC, Hung CP, Chang DP, Huang MH. Is total knee replacement more painful than total hip replacement? Acta Anaesthesiol. Sin.2000;38:143-8.