ABSTRACT

COMBINED PSOAS COMPARTMENT BLOCK AND SCIATIC NERVE BLOCK FOR ELECTIVE LOWER LIMB SURGERIES

AIM AND OBJECTIVE OF THE STUDY

This study was aimed at evaluation of the motor and sensory blockade and post operative analgesia using both psoas compartment block and sciatic nerve block in elective lower extremity surgeries.

PRIMARY OBJECTIVE

To assess the effectiveness of the lower limb block based on

1) Sensory block
2) Motor block
3) Post operative analgesia

SECONDARY OBJECTIVE

To assess the onset of block, total duration of block, and the time taken for the first dose of rescue analgesia and to look for complications if any.
MATERIAL AND METHOD

DESIGN OF THE STUDY

- Randomized Prospective study

SELECTION OF SUBJECTS

- Study involves adult patients between 18 to 60 years of ASAps I- II posted for elective lower limb surgeries.
- Sample size 60
- Randomization – computer generated random numbers

PSOAS COMPARTMENT BLOCK AND SCIATIC NERVE BLOCK

Sixty patients subjected to psoas compartment block followed by sciatic nerve block using nerve stimulator 0.25% bupivacaine over 30 ml for psoas compartment block and 0.25% of 20ml bupivacaine for sciatic nerve block was administered. Under strict aseptic precautions, psoas compartment block performed by winnes technique and sciatic nerve block by labat’s
technique using peripheral nerve stimulator after obtaining twitch of quadriceps and calf muscle contraction and dorsiflexion of foot.

**Results are based on following parameters**

- Time of onset of sensory blockade
- Time taken for onset of motor blockade
- From the time of block, visual analogue scale noted for every 30 minutes 1 hour, 2 hour by 4, 6, and 8 hours
- From the time of block Bromage score noted for 2, 6, and 8 hours
- Time elapsed till first rescue analgesia dose
- The incidence of first dose of rescue analgesia at 9 to 10 hours is 48.3% (29 out of 60 patients) and at 10 to 11 hours is 51.7% (31 out of 60 patients).
- Sensory blockade by visual analogue scale reveals no pain up to 8 hours and almost complete block up to 6 hours in 73.3% of patients and good analgesic effect up to 9 to 10 hours in 48.3% (29 out of 60 patients) and at 10 to 11 hours is 51.7% (31 out of 60 patients).
- So overall combined psoas compartment block and sciatic nerve block provides effective sensory blockade, motor blockade and good postoperative analgesic effect.
CONCLUSION

This study concluded that skillful application of psoas compartment block by posterior approach [WINNIES APPROACH] and proximal sciatic nerve block [LABATS APPROACH] provides adequate intraoperative analgesia for major lower extremity procedures and maintains prolonged postoperative analgesia with significantly lower consumption of opioid analgesics. It also provides, early ambulation, short hospital stay and far less side effects when compared with neuroaxial blocks such as hemodynamic instability, meningeal irritation, introduction of infections, neurological complications and others. Finally, both patient and surgeon satisfaction were achieved successfully with psoas compartment block and sciatic nerve block. Combined psoas compartment block and sciatic nerve block is a safe and effective alternative for analgesia for lower limb surgeries.
KEY WORDS

Psoas compartment, sciatic nerve, bupivacaine, nerve stimulator, visual analogue scale and modified bromage scale