

A peripheral nerve stimulator guided popliteal sciatic nerve block combined with adductor canal block in lower leg surgery- A sole anesthetic technique

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Abstract

The lower leg surgeries (Below knee) involve fractures of the distal tibia, ankle surgeries, lower limb amputation, debridement, PVD surgeries, and these surgeries are very common. When associated with comorbidities, the choice of anesthesia in such cases may be regional or General Anesthesia. In this Prospective Randomised Controlled Trial, we aim to explore the efficacy of the Adductor canal block plus Popliteal Sciatic Block for Lower leg surgeries. Sixty patients (ASA I, II, III) undergoing lower limb surgeries were randomly allocated in 2 groups (30 patients in each group). In Group P patients received PNS guided Adductor canal block combined with popliteal sciatic block and in group S patients received unilateral spinal anesthesia. The primary outcomes were duration of sensory and motor block and post-operative pain relief assessed using VAS score. Secondary outcome measures included intraoperative requirements of additional anesthesia and intraoperative haemodynamic stability. There was significant intraoperative haemodynamic stability and post-operative pain relief attributable to Group P. Time for the first requirement of rescue analgesia postoperatively was significantly higher in Group P compared to Group S (Group P Mean $SD 15.9 \pm 5.26$ vs 6.05 ± 1.23 in Group S with $p < 0.0001$). Intraoperative additional anesthesia requirement was more in Group P making Group S superior in terms of anesthesia technique although prolonged post-operative analgesia was observed in Group P. This made us conclude that combined adductor canal block and popliteal sciatic block can be an alternative technique where spinal anesthesia is contraindicated with the additional advantage of prolonged postoperative analgesia and haemodynamic stability.



Biography

Dr. Darshit Chauhan has completed his MBBS from PDU Medical College Rajkot and is pursuing his Masters degree in anesthesiology from SSG Hospital and Medical College Vadodara.

Speaker Publications:

1. Reducing computational time in ray tracing
2. Role of MRI in evaluation of hip pathologies
3. Design of plant layout using concurrent engineering techniques

[5th International Anesthesia and Pain Medicine Conference](#) - Dubai, UAE- August 10-11, 2020.

Abstract Citation:

Darshit Prafulkumar Chauhan, A peripheral nerve stimulator guided popliteal sciatic nerve block combined with adductor canal block in lower leg surgery- A sole anesthetic technique, Anesthesia Meet 2020, 5th International Conference on Anesthesia and Pain Medicine Conference; Dubai, UAE- August 10-11, 2020. (<https://anesthesiology.conferenceseries.com/2020>)

