



## ▼ POST GRADUATES ABSTRACTS

### PG -06: QUANTITATIVE ASSESSMENT OF ULTRASOUND GUIDED SCIATIC NERVE BLOCK – A COMPARISON OF SINGLE POINT VERSUS TWO POINT INJECTION TECHNIQUE

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**Introduction:** The ability of local anaesthetic to block a nerve depends on the length of the nerve exposed, the diameter of the nerve, the presence of myelination and the local anaesthetic used. Studies have suggested that current perception threshold involves quantification of sensory threshold to transcutaneous electrical stimulation and therefore has been explored as a technique to evaluate the effectiveness of peripheral nerve blockade. This study is designed to quantify the intensity of sensory blockade by assessing whether a double point injection would give a more intense blockade than a single point injection using a peripheral nerve stimulator.

**Material and methods:** Sixty patients posted for foot surgeries under ultrasound guidance sciatic nerve block were recruited by random selection and enrolled into 2 groups –single point group received a single injection of 20ml of 1.5 % of lignocaine with adrenaline just proximal to the sciatic nerve bifurcation and double point group received one injection of 10ml of 1.5%

lignocaine with adrenaline at the point similar to that in group SP and a second injection of 10ml of the same at a point 6cms above the first point. The sensory blockade onset, the time to complete sensory blockade, the time to complete motor blockade, the exposed nerve length, the analgesia duration were evaluated.

**Observations and results:** Double point technique showed a significantly faster time to complete loss of motor blockade and a significantly longer length of nerve exposed and longer duration of analgesia when compared to the single point technique. The sensory blockade onset, the time to complete sensory blockade were not statistically significant different between the two groups.

**Conclusion:** Double point technique was found to be superior when compared to single point technique in terms of length of nerve exposed, completeness of motor blockade and duration of analgesia.