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## Efficacy of Femoral Nerve Block in acute fractures of the femur in the Emergency Department

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Fractures around the hip and fractures of the femur are commonly encountered in the Emergency Department (ED). Effective control of pain in these fractures is of critical importance for proper radiography, reduction and splintage. Traditionally, systemic analgesics have been used for pain relief which had its own limitations both in terms of pain relief and relaxation.

**Objective:**

To evaluate the efficacy of Femoral Nerve Block in decreasing pain and anxiety in acute fractures of the femur.

**Materials and Methods:**

This was a prospective cohort study with a Sample size of eighty four patients (84). The study Population included patients with Fractures around the hip, Fractures of the shaft and distal femur. Intervention-Ultrasound guided the Femoral Nerve Block (FNB). The outcome measures included Visual Analogue Scale (VAS) score for pain, Hamilton Anxiety Score (HAM-A) score for anxiety and subjective assessment of the patients comfort level.

**Results:**

Study group (n=84) included in the evaluation were homogenous in terms of age and sex distribution. The mean  $\pm$  SD VAS score preoperatively was  $72.93 \pm 10.91$ . At 30 minutes and 4 hours post-block the mean  $\pm$  SD VAS scores were  $18.65 \pm 5.25$  and  $13.88 \pm 6.05$ , respectively. There was statistically significant difference in VAS score at 30 minutes ( $p=0.004$ ) and 4 hours ( $p=0.015$ ). The mean Hamilton Anxiety score at pre-block and 4 hour post-block was  $27.05 \pm 5.94$  and  $8.07 \pm 3.7$ , respectively. The overall

HAM-A score comparison showed that there was statistically significant change after 4 hours post-block ( $p=0.013$ ) showing significant decrease in anxiety levels. All patients were satisfied by the comfort and ease of shifting after block. Intergroup analysis of fractures around the hip (Neck femur, Trochanter) and fractures of the shaft (Shaft femur and distal femur) revealed equal efficacy of the femoral block.

**Conclusion:**

FNB provided rapid and prolonged analgesia with comfort in patients with fracture around the hip, shaft femur and distal femur fractures. The analgesic effect and the quadriceps palsy allow muscle relaxation and hence pain-free radiology and orthopaedic tractions and splinting. Decreasing the pain immediately on arrival and performing transport, radiology and orthopaedic procedures with minimal pain has positive impact on the patient's anxiety.

**Biography**

Shiv Shanker Tripathi is Professor, Department of Emergency Medicine and Trauma at Dr. Ram Manohar Lohia Institute of Institute of Medical Sciences, Lucknow, India. He has done his post-Graduation in Anesthesiology and has completed his Post-Doctoral Certificate Course in [Critical Care Medicine](#). He has more than 50 Publications in international high impact journals. He specializes as a clinician as well as an academician in the field of Emergency, Trauma, Critical care and Anesthesiology.

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