Fascia Iliaca Block: Its Analgesic Efficacy after Surgery for Proximal Femoral Fracture

Katerina Gruba¹, Iveta Golubovska¹,²,³, Aleksejs Miscuks²,³

¹ Rīga Stradiņš University, Faculty of Medicine, Latvia
² Hospital of Traumatology and Orthopaedics, Department of Anaesthesiology and Intensive Care, Latvia
³ University of Latvia, Faculty of Medicine

Introduction. Proximal femoral fracture is a common problem in elderly. Opioids used for analgesic purposes have multiple side effects as sedation, respiratory depression, nausea, vomiting, possible confusion and postoperative delirium. Recently, use of fascia iliaca block has gained popularity as a part of relieving pain among these patients.

Aim. The aim of this study is to compare the analgesic efficacy of fascia iliaca block that is combined with multimodal analgesia and multimodal analgesia alone.

Material and methods. In this study 40 consecutive patients who sustained a proximal femoral fracture were randomly allocated into two groups. For 20 patients in group I, FI was used to control postoperative pain. FI was performed by an anaesthesiologist before spinal anaesthesia in operating theatre. For 20 patients in group II (KG) only spinal anaesthesia was performed. Systemic administration of paracetamol, non-steroidal anti-inflammatory drugs and oral morphine 10 mg was given for all patients as part of multimodal analgesia. Tramadol was used for breakthrough pain as rescue analgesic. The severity of pain was assessed by use of a visual analogue scale (VAS) at four time points; 2 hours after surgery, 18.00, 22.00, 06.00. Side effects as postoperative nausea and vomiting (PONV), pruritus and hypotension were noted. Patients were observed 24 hours after surgery and each survey was completed. The statistical analysis of data was performed using Microsoft Office Excel and SPSS software. P value < 0.05 was considered statistically significant.

Results. Neither blockade-associated severe complications nor analgesic failure were encountered among patients. In FI, the mean postoperative VAS scores 2 hours after surgery and at 18.00, 22.00 and 06.00 were 0.1, 2.35, 3.15 and 1.35 cm respectively, indicating good pain relief. The values for KG patients were 0.75, 2.65, 3.75 and 2.05 cm respectively (p values – 0.02; 0.37; 0.17; 0.007, respectively). Consequently, significant differences in VAS scores were demonstrated between the groups immediate postoperative and next morning periods. The medium dose of Tramadol for FI was less but not statistically significant; 111.53 ± 29.96 mg, for KG 133.33 ± 86.16 mg (p = 0.9). Patient satisfaction was significantly higher in FI group, mean 7.25 ± 1.45 points, for KG mean 5.95 ± 0.9 points (p = 0.003).

Conclusion. FI is safe even in less experienced hands and efficient, providing better analgesic effects in elderly patients with proximal femoral fracture, comparing with multimodal analgesia only group.