COMPARISON BETWEEN MEDIAL AND LATERAL APPROACHES OF ULTRASOUND GUIDED COSTOCLAVICULAR BRACHIAL PLEXUS BLOCK FOR UPPER LIMB SURGERY – A RANDOMISED CONTROL TRIAL

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Background and Aims The aim of our study is to compare medial and lateral approaches of the costoclavicular BPB which has become procedure of choice for upper limb anaesthesia. We hypothesized that costoclavicular block through medial approach would result in shorter performance time owing to the absence of bony anatomical structures in medial aspect.

Methods After IEC approval, 62 patients were assessed for eligibility of which 2 patients declined to participate in the study. In group M, needle was advanced in a medial to lateral direction, whereas in Group L, needle was advanced in lateral to medial direction. 20ml of 0.5% bupivacaine were used in both groups. The primary outcome assessed was performance time. The secondary outcomes analysed were Imaging time, Needling time, Block onset time, Total Anaesthesia time, Anaesthesia success, Performer difficulty score. As two patients were switched over to Group L due to unfavourable anatomy, we ran statistical analysis by modified Intention to treat analysis.

Results The mean +/- SD for performance time (in mins) were 11.9+/-.3.8 in Group M and 9.4+/-.4.1 in Group L with difference of mean (95%CI) of 2.4 (0.3 to 4.5) with p-value <.05.Similarly, imaging, needling, total anaesthesia time were also higher in Group M. Performer difficulty score (Grade 2&3) 66.67% vs 48.2%,p-value 0.032 was also higher in Group M compared to Group L.

Conclusions Our findings revealed medial approach have no significant advantage over lateral approach with regards to performance time, imaging time, needling time, total anaesthesia time and performer difficulty but with marginally higher block success rate.

ULTRASOUND-GUIDED SUPRAINGUINAL FASCIA ILIACA BLOCK VERSUS ERECTOR SPINAE PLANE BLOCK FOR POSTOPERATIVE ANALGESIA OF PATIENTS UNDERGOING HIP FRACTURE SURGERY: A RANDOMIZED CONTROLLED TRIAL

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Background and Aims The aim of this study is to compare the postoperative analgesic efficacy of Suprainguinal Fascia Iliaca Block(FIB) and Lumbar Erector Spinae Plane Block(L-ESPB) in patients undergoing proximal femur fractures surgery.

Methods Patients with ASA(American Society of Anesthesiology)II-III were included and randomized into: FIB, L-ESPB, and control groups. Surgery was performed under spinal anesthesia in each group and preoperative block was performed in the related groups. Postoperative intravenous morphine via PCA(patient controlled analgesia) was administered and pain intensity was evaluated using NRS(Numeric Rating Scale).

Results A total of 63 patients were included. NRS scores at 12, 24 and 36th hours postoperatively were significantly lower in the FIB (1.18+-0.13, 0.82+-0.14, 1.0+-0.17) compared to the control group (2.05+-0.25, 2.14+-0.27, 1.81+-0.25) (p=0.006, p=<0.001, p=0.011, respectively). While the 12th and 36th hour NRS in the FIB were similar to those in the L-ESPB group, the 24th hour NRS in the FIB was significantly lower than in the L-ESPB group(1.60+-0.23) (p=0.01). NRS was similar between groups at 0, 2, 6 and 48th hours. Morphine consumption in the first 2hours and 2-6-hour period were significantly higher in the control group compared to other groups(p=0.018, p=0.021 respectively) and after 6th hour was similar among the three groups. The cumulative opioid use was higher in the control group at 6h,12h,24h,36h,48h hours where as it was similar between the FIB and L-ESPB groups in each time period.

Conclusions Combining FIB or L-ESPB with spinal anesthesia effectively reduced postoperative opioid consumption and provided better pain control. FIB demonstrated longer-lasting pain relief compared to L-ESPB.

Ethical Committee Approval