Table 1 - Post-operative analgesia with continuous erector spinae plane block	
Surgical specialty – n (%)	
General Surgery	20 (54,1%)
Supra-mesocolic space	13 (65%)
Infra-mesocolic space	6 (30%)
Radical mastectomy	1 (5%)
Plastic Surgery	2 (5,4%)
Latissimus flap breast reconstruction	1 (2,7%)
Nipple-areola reconstruction	1 (2,7%)
Thoracic Surgery	8 (21,6%)
Rib fractures	2 (5,4%)
Modified Ravitch procedure	1 (2,7%)
Atypical resection of the right lower lobe	3 (8,1%)
Debridement of empyema	2 (5,4%)
Orthopedics	6 (16,2%)
Total hip replacement	4 (10,8%)
Osteosynthesis of femoral fracture	2 (5,4%)
Gynecology	1 (2,7%)
Radical mastectomy	1 (2,7%)
Level of block ¹ – n (%)	
T5	6 (27,3%)
T9	10 (45,5%)
L4	6 (27,3%)
Continuous catheter management – n (%)	
Ropivacaine concentration	
Ropivacaine 0,15%	5 (13,5%)
Ropivacaine 0,2%	32 (86,5%)
Ropivacaine volume	
10ml	30 (81,1%)
5ml	2 (5,4%)
7ml	2 (5,4%)
8ml	3 (8,1%)
Time between ropivacaine administrations	
1h	5 (13,5%)
2h	23 (62,2%)
3h	9 (24,3%)
Duration of catheter use (days) – median (IQR)	2 (1)

¹15 Missing Values; ²4-5 cm in the interfascial space

Table 2 – Post-operative pain and side effects	
Pain scores on day 1 post-op	
At rest ¹ - Mean ± SD	1,4 ± 1,7
With movement ² - Mean ± SD	4,0 ± 2,6
Pain scores on day 2 post-op	
At rest ³ - Median (IQR)	0 (2)
With movement ⁴ - Mean ± SD	2,3 ± 2,2
Pain scores on day 3 post-op	
At rest ⁵ - Median (IQR)	0 (2)
With movement ⁶ - Mean ± SD	2,5 ± 2,4
Post-operative side effects – n (%)	
Nauseas and/or vomiting	5 (13,5%)
Paresthesia	1 (2,7%)
Other side effects	2 (5,4%)
No side effects	29 (78,4%)

¹29 Missing Values; ²16 Missing Values; ³17 Missing Values; ⁴24 Missing Values

ESRA8-0113
E-POSTER VIEWING

PERIPHERAL NERVE BLOCKS

INTERSCALENE BRACHIAL PLEXUS BLOCK FOR SURGICAL REPAIR OF CLAVICLE FRACTURE: A MATCHED-STUDY

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Toronto, Canada, ⁴Centre Hospitalier Universitaire Vaudois, Department of Orthopaedic, Lausanne, Switzerland.

Background and Aims: Clavicle innervation is complex and debated, with scarce data on the impact of regional anaesthesia for analgesia after surgical repair of clavicle fracture. We report a case-matched cohort study of patients undergoing clavicle fracture fixation performed under general anaesthesia with or without an interscalene brachial plexus block (ISB).

Methods: Fifty consecutive patients with middle/distal clavicle fracture scheduled for surgical fixation under general anaesthesia with ISB were prospectively enrolled. This cohort was compared to a historical control of 76 retrospective patients without regional block. The primary outcome was total intravenous morphine equivalent consumption at 2 postoperative hours. Secondary outcomes included perioperative sufentanil administration, intravenous morphine equivalent consumption at 24 postoperative hours, and resting pain scores at 2 and 24 postoperative hours. To assess the ISB impact, we performed both an overall cohort analysis and a case-matched analysis with each ISB-treated patient matched to a Non-ISB-treated patient. Matching employed a 1-to-1, nearest-neighbor approach using the Mahalanobis metric.

Results: In the overall cohort, patients with ISB had significantly lower IV morphine equivalent consumption at 2 postoperative hours (0.7mg [95%CI: 0.1-1.2]) versus controls (8.8mg [95%CI: 7.1-10.4]; p<0.0001). Secondary outcomes were also significantly reduced, except resting pain scores at 24 postoperative hours. These results persisted after case-matching the cohorts (mean difference for the primary outcome: 8.3mg [95%CI: 6.5-10.0; p<0.001).

Conclusions: ISB provides effective analgesia after surgical fixation of middle/distal clavicle fracture. Our results suggest clinically relevant clavicle innervation mainly from branches of the brachial plexus. These results should help physicians establishing analgesic strategy for this type of surgery.

ESRA8-0087
E-POSTER VIEWING

PERIPHERAL NERVE BLOCKS

INTRAVENOUS REGIONAL ANESTHESIA VERSUS AXILLARY NERVE BLOCK FOR AMBULATORY HAND SURGERY: A PROSPECTIVE, RANDOMIZED TRIAL

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Background and Aims: Regional anesthesia is a popular alternative for general anesthesia in ambulatory hand surgery, resulting in faster recovery and discharge times. Two commonly applied techniques are intravenous regional anesthesia (IVRA) and axillary nerve block (AB). Traditionally, analgesic efficacy, adverse events and safety are studied to compare regional anesthesia techniques. In our study, we aim to evaluate patient satisfaction with both techniques.

Methods: After obtaining ethical committee approval and written informed consent, 120 patients undergoing hand surgery were included in this prospective trial and randomized into the IVRA-group and the AB-group. Patient

HL = Hodges-Lehmann estimator for shift.

Note: Confidence intervals that lie entirely within the shaded non-inferiority region provide evidence of statistical non-inferiority of Bier's versus Axillary Block.

TABLE 1.

satisfaction as the primary outcome was assessed with the EVAN-LR questionnaire. Secondary outcomes included induction time, tourniquet time, discharge time and length of hospital stay, block quality, pain scores, need for supplemental analgesia and conversion to general anesthesia (GA).

Results: There was no difference in patient satisfaction between the IVRA-group and the AB-group (table_1). Induction time, hospital stay and discharge time were significantly longer in AB-group ($p < 0.001$). Intra- and postoperative pain scores were significantly higher and tourniquet time was longer in the IVRA-group ($p < 0.001$), but no difference in need for supplemental analgesia or conversion to GA was shown. No differences were found in block quality, nor in pain scores and need for supplemental analgesia after discharge.

Conclusions: Patients undergoing IVRA were equally satisfied as patients with AB, and had a shorter induction time, discharge time and hospital stay. However, higher pain scores with IVRA suggest the need for a more appropriate pain management for these patients.

ESRA8-0301

E-POSTER VIEWING

PERIPHERAL NERVE BLOCKS

EFFECT OF SUPRASCAPULAR AND AXILLARY NERVE BLOCK ON SEVOFLURANE CONSUMPTION AND POSTOPERATIVE PAIN RELIEF IN ARTHROSCOPIC SHOULDER SURGERY

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Background and Aims: The aim of this study was to evaluate the effects of a preoperative suprascapular and axillary nerve block on sevoflurane consumption, postoperative pain, analgesic consumption and visualization of the arthroscopic field in arthroscopic shoulder surgery.

Methods: Forty-three patients undergoing arthroscopic shoulder surgery were randomized to receive either a suprascapular and axillary nerve block with ultrasound guidance (20 ml 0.25% bupivacaine), prior to general anaesthesia (group SSAX, $n = 22$) or a subacromial local infiltration (20 ml 0.25% bupivacaine) after the procedure (group control, $n = 21$). End-tidal sevoflurane consumption, visualization of the arthroscopic field scores of the patients were recorded during the procedure. Patients' postoperative pain scores, tramadol consumption were also recorded.

Results: The end-tidal sevoflurane concentration values were similar in both groups ($p > 0.05$). Group SSAX had better mean static pain score in the PACU (Group SSAX 4.27 ± 1.48 vs Group C 6.24 ± 1.09 $p < 0.05$). Tramadol consumption was lower in group SSAX than in group C (253.1 ± 85.3 mg vs 324.2 ± 72 mg, $p = 0.005$). Visualization of the arthroscopic field scores were lower in group SSAX than in group C along the intraoperative period ($p < 0.05$).

Conclusions: Suprascapular and axillary nerve blocks are effective in postoperative analgesia at rest, may reduce tramadol consumption and provide a clean image in the arthroscopic area of arthroscopic shoulder surgery, but these blocks may not reduce sevoflurane consumption. ClinicalTrials.gov identifier: NCT03212443.

ESRA8-0158

E-POSTER VIEWING

PERIPHERAL NERVE BLOCKS

TO ASSESS THE ANALGESIC EFFICACY OF COMBINED PECTORAL NERVE BLOCKS (PECS I & II) IN BREAST SURGERIES : A RANDOMIZED CONTROL TRIAL

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Care, New Delhi, India; ³All India Institute of Medical Sciences, Department of Surgery, New Delhi, India.

Background and Aims: In breast surgeries, poorly controlled acute postoperative pain may lead to chronic pain. In this study we evaluated the analgesic efficacy of ultrasound guided PEC I & II in patients scheduled for breast surgeries. We assessed the following: total fentanyl and time to first analgesic requirement (VAS > 3), and any limitation of operative shoulder movements at 4, 5, 6, and 24 hours after surgery.

Methods: Sixty adult women, aged 18-70 years, ASA physical status I or II having carcinoma breast were included in this trial. All patients were randomly allocated into Group P: Study group and Group C: Control group. In Group P, patients received both GA and USG PECS I & II with 30 ml 0.25 % Ropivacaine. In Group C, patients received only GA. Post-operatively, all patients received PCA (fentanyl 10mcg /ml, lockout interval-15min). We noted pain intensity at rest and during abduction of operated side upper limb at 30 minutes, 1,2,3,4,5, 6 and 24 hours after surgery in both the groups.

Results: Group P showed significant reduction in total fentanyl requirement in first 24 hours as compared to Group C and the difference between two groups was 171 microgram [138.40-203.59] (95% CI: p value < 0.001). The mean time required for first analgesia was significantly longer. Limitation of shoulder movements was significantly less in Group P (p value < 0.001).

Conclusions: Combined PECS I & II with GA in modified radical mastectomy surgeries have reduced total fentanyl requirement, prolonged the time for first analgesia requirement with no limitation of shoulder movements on the operated side.

ESRA8-0229

E-POSTER VIEWING

PERIPHERAL NERVE BLOCKS

CONTINUOUS LUMBAR PLEXUS BLOCK FOR TOTAL HIP REPLACEMENT USING THE SHAMROCK METHOD: A CASE REPORT

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Background and Aims: Lumbar plexus (LP) block is a successful technique for postoperative analgesia following lower extremity surgery. Several ultrasound (US) guided techniques have been described. The most promising is the Shamrock Technique, based on recognizing three muscles around the transverse process (TP) of L4: Quadratus Lumborum (QL), Erector Spinae (ES) and Psoas Major (PM), which together form a "shamrock" sign. (Fig. 1)

We used this method to perform continuous LP block for postoperative analgesia in a 50 years old man who underwent total hip replacement.

FIGURE 1.

Methods: The patient was placed in lateral position with the side to be blocked facing up. A low frequency curved US transducer was placed transversally in the abdominal flank and moved dorsally until the Shamrock sign was seen.