

Conclusions Following injections in erector spinae plane, there was no spread of the dye anteriorly to the paravertebral space and it only involved the dorsal rami. Inter-ligamentous space injection appears to be the most promising block in future as the dye spread both anteriorly to paravertebral space and posteriorly toward the erector spinae plane.

EP221

BETWEEN A ROCK AND A HARD PLACE: EPIDURAL ANESTHESIA FOR A CAESAREAN DELIVERY IN A WOMAN WITH DIAPHRAGMATIC PARALYSIS – A CASE REPORT

Alexandrina Silva, David Silva Meireles*, Cristina Salta, Teresa Rocha. *Anesthesiology, Centro Hospitalar Universitário de Lisboa Central, Lisbon, Portugal*

10.1136/rapm-2023-ESRA.281

Background and Aims Diaphragmatic paralysis (DP) can pose challenges during caesarean delivery (CD), as it may increase the risk of respiratory complications. While there is limited information on anesthesia techniques for patients with DP, central nerve blocks sparing upper intercostal muscles have been utilised in similar procedures.

Methods A 20-year-old woman with idiopathic diaphragmatic paralysis who required an emergent CD due to persistent variable fetal decelerations and intrapartum fever in the labour ward. Diaphragmatic paralysis was incidentally discovered during investigations for recurrent syncope, with no identifiable cause. The patient had a functional capacity of 5 METs. Epidural anesthesia (EA) was performed using titrated ropivacaine 0.75% through an epidural catheter, which had been placed at the beginning of the first stage of labor, 12 hours prior to the development of fever. A total volume of 14mL of ropivacaine was administered. Standard ASA monitoring, multimodal analgesia, and broad-spectrum antibiotics were employed.

Results The patient remained hemodynamically stable and ventilated spontaneously throughout an uneventful CD. No respiratory or neurological complications were observed in the postoperative period.

Conclusions The compressive effect of the dural sac allowed us to limit the spread of local anaesthetic, sparing upper thoracic myotomes. Although EA is an option in patients with diaphragmatic paralysis, decisions should be tailored to individual cases. Further studies are needed to evaluate the impact of EA on patients with diaphragm lung paralysis and other restrictive lung diseases.

EP222

TRIPLE BLOCK VS SPINAL ANAESTHESIA VS GENERAL ANAESTHESIA FOR TOTAL KNEE REPLACEMENT IN HIGH RISK PATIENTS: PERIOPERATIVE HEMODYNAMIC STABILITY, COMPLICATION AND COSTS

¹Angelika Schaffler*, ²Luisa Vaz Rodrigues, ³Hagen Bombberg, ⁴Francesco Mongelli, ⁵Andrea Saporito, ³Urs Eichenberger, ¹José Aguirre. ¹*Anestheisa, City Hospital Zürich, Zürich, Switzerland*; ²*Anestheisa, Instituto português de Oncologia Francisco Gentil, Porto, Portugal*; ³*Anestheisa, University Hospital Balgrist, Zürich, Switzerland*; ⁴*Anestheisa, Regional Hospital of Lugano, Lugano, Switzerland*; ⁵*Anestheisa, Cantonal Hospital Bellinzona et Valli, Bellinzona, Switzerland*

10.1136/rapm-2023-ESRA.282

Application for ESRA Abstract Prizes: I apply as an Anesthesiologist (Aged 35 years old or less)

Background and Aims This study compares perioperative complications of patients undergoing general anaesthesia (GA), spinal anaesthesia (SA) or isolated peripheral triple nerve blocks (NB) for total knee replacement surgery in high risk patients.

Methods In this retrospective single center study, 329 patients (ASA \geq III), scheduled for elective total knee replacement between 2014 and 2020 were included. All patients received a femoral catheter and a proximal sciatica nerve block for perioperative analgesia. Patients in the NB group received an additional obturator nerve block. Due to failure resulting from insufficient block or patients expressing their wish for a general anaesthesia, patients were assigned according to the definitive anaesthesia method. There were 22 individuals in the NB-, 171 patients in the SA – and 136 patients in the GA group. Perioperative parameters, events and costs were compared. Differences between groups were compared using the chi-square test.

Results The NB group showed a significantly better haemodynamic stability intraoperatively with less vasopressor consumption, respectively less relevant hypotension. In 73% of patients in the NB group a PACU-Bypass was achieved (vs 34% in SA group vs 13% in GA group). This influenced the overall costs positively. Remarkably, during the initial 24 hours, no episodes with severe pain (visual analog scale score > 30) were observed in the NB group. Regarding other postoperative complications we could not observe a statistically significant difference.

Conclusions In summary, the use of triple block as an isolated technique for total knee replacement surgery in specific high-risk patients appears to be a safe option with less haemodynamic complications.

ePoster session 7 – Station 2

EP223

HIGH THORACIC ERECTOR SPINAE PLANE BLOCK FOR SHOULDER ARTHROSCOPY: CASE SERIES

¹Derya Özkan*, ²Funda Atar. ¹*Ankara, Turkey*; ²*none, Ankara, Turkey*

10.1136/rapm-2023-ESRA.283

Background and Aims Arthroscopic shoulder surgery is associated with moderate/severe postoperative pain, which may prevent rehabilitation of patients and increase hospital stay. Erector spinae plane block (ESPB) is a block in which different levels of local anesthetic (LA) are applied between the erector spinae muscle and the transverse process of the vertebrae. We aimed to present the analgesic effect of the block in the first 24 hours postoperatively in 10 patients to whom we applied ESPB at T2-T3 level for analgesia in shoulder surgery.

Methods Patients written consent was obtained. Ultrasound guided ESPB was performed at T2-T3 level in 10 patients with ASA I, II who will undergo shoulder surgery under general anesthesia. Anesthesia was maintained with sevoflurane-air and remifentanyl iv infusion according to hemodynamic parameters. Paracetamol, dexketoprofen iv was administered to the patients in the perioperative period. Patients 0, 1, 6, 12, 24 h, NRS scores were recorded.

Results Ten patients aged 33-75 (male/female = 5/5; mean age = 58.3 [SD = 16.5]) were included in the case series. The distribution of sensory nerve blockade varied between C2 and C7 in the anterolateral region, between T2 and T7 in the posterior region. The mean surgical time was 85.4 minutes.

The mean consumption of remifentanyl was 81.4 μg (0-210). The PACU, 1st, 6th, 12th, 24th hour NRS scores of the patients were between 2 and 4.

Conclusions ESPB in shoulder surgery reduced intraoperative opioid consumption and postoperative NRS scores. We think that ESPB could be a part of multimodal analgesia in shoulder arthroscopy surgeries.

EP224 FEATURES OF TREATMENT OF PAIN SYNDROME AFTER KNEE ATROPLASTY AT THE SECOND STAGE OF REHABILITATION

¹Aleksey Yu Eldyrev*, ²Mikhail I Ivanov, ³Rodion N Drandrov, ⁴Ol'ga V Trifonova, ¹Andrey L Vladimirov. ¹Anesthesiologist-resuscitator, Federal State Budgetary Institution «Federal Center for Traumatology, Orthopedics and Arthroplasty», Cheboksary, Russia; ²Head of Department of Inpatient Medical Rehabilitation, Federal State Budgetary Institution «Federal Center for Traumatology, Orthopedics and Arthroplasty», Cheboksary, Russia; ³Doctor of ultrasound diagnostics, Federal State Budgetary Institution «Federal Center for Traumatology, Orthopedics and Arthroplasty», Cheboksary, Russia; ⁴Traumatologist-orthopedist, Federal State Budgetary Institution «Federal Center for Traumatology, Orthopedics and Arthroplasty», Cheboksary, Russia

10.1136/rapm-2023-ESRA.284

Background and Aims From 8% to 44% of patients after knee arthroplasty experience pain of varying severity (Qudsi-Sinclair S. et al., 2016; Hagedorn JM et al., 2020), which prevents successful rehabilitation. Interventional techniques are most effective in the treatment of pain of various origins, however, there is not enough information about their use after knee arthroplasty. The aim of the study was to evaluate the analgesic efficacy of N. saphenus blockade at the 2nd inpatient stage of medical rehabilitation after knee arthroplasty.

Abstract EP224 Table 1 The results of rehabilitation measures in patients after arthroplasty using Knee Society Score [Insall et al., 1989; Liow et al., 2000] (points)

Function Score	I group (n=6), Md [min: max]		II group (n=6), Md [min: max]	
	Before the start of rehabilitation	After completion of rehabilitation activities	Before the start of rehabilitation	After completion of rehabilitation activities
Pain	0 [0;10]	25 [20;40]	0 [0;10]	45 [45;50]
Range of motion	17 [17;18]	17 [17;20]	17 [17;18]	21,5 [21;22]
Active extension deficiency	0 [0;0]	0 [0;0]	0 [0;0]	0 [0;0]
Flexion contracture	0 [0;0]	0 [0;0]	0 [0;0]	0 [0;0]
Axis (varus/valgus)	-15 [-12;-15]	-15 [-12;-15]	-15 [-12;-15]	-15 [-12;-15]
Stability	0 [0;0]	0 [0;0]	0 [0;0]	0 [0;0]
Walking	10 [10;10]	10 [10;10]	10 [10;10]	10 [10;10]
Additional support	-10 [-10;-10]	-10 [-10;-10]	-10 [-10;-10]	-10 [-10;-10]
Ladder	5 [0;20]	10 [0;10]	0 [0;10]	35 [20;30]
TOTAL (points)	7,5 [2;35]	38,5 [23;55]	12 [2;16]	87,5 [72;95]
Result	-	Unsatisfactory	-	Excellent

Methods The study included 12 patients who underwent rehabilitation after knee arthroplasty at stage 2 in the inpatient medical rehabilitation department. Inclusion criteria – pain syndrome 5-6 points according to the CRS at rest, 7-8 points

during movement. Patients were randomly divided into 2 groups. In group I (n=6), rehabilitation measures were carried out without the use of therapeutic and diagnostic blockades. In group II (n=6), rehabilitation was supplemented by N. saphenus blockade on days 7-8 after joint arthroplasty. Blockades were performed using local anesthetic solutions and glucocorticosteroids with online ultrasound navigation. The criterion of effectiveness of rehabilitation measures is the Knee Society Score.

Results The use of N. saphenus blockade has a positive effect on the range of motion in the knee joint and the ability to walk up the stairs due to a significant decrease in the intensity of the pain.

Conclusions The study showed the high efficiency of therapeutic and diagnostic blockades of N. saphenus to increase the effectiveness of rehabilitation measures after arthroplasty at the 2nd inpatient stage of rehabilitation.

EP225 COMPARISON OF ONSET OF ACTION FOR ULTRASOUND GUIDED SCIATIC NERVE BLOCK AT PRE-BIFURCATION AND POST BIFURCATION LEVEL IN PATIENTS UNDERGOING LOWER EXTREMITY SURGERY

Maheshwari Sivashanmugha kumar*, Saranya Raj M. Anaesthesia, Ganga Medical Centre and Hospital, coimbatore, India

10.1136/rapm-2023-ESRA.285

Background and Aims Sciatic nerve block (SNB), a well-established and widely used for lower limb surgeries. The distal SNB (popliteal fossa block) is used peripheral nerve block for below knee surgeries. Popliteal fossa block with bupivacaine provide 12-24 hours of analgesia, irrespective of the nerve localisation technique used, complete sensory and motor block is associated with slow onset time (20-60 mins). To evaluate and compare the onset of action of sciatic nerve block proximal to its bifurcation and immediately after bifurcation using ultrasound with local anaesthetic injection inside the paraneural sheath.

Methods After Ethical Committee Approval, USG sub paraneural popliteal SNB performed in 50 patients undergoing lower extremity surgeries and were randomly divided into 2 groups (A & B). Group A received 20ml 0.5% bupivacaine 8 cm above the bifurcation into tibial and common peroneal nerve. Group B received 20ml 0.5% bupivacaine immediately after its bifurcation. Performance time, adverse events, onset of sensory, motor blockade of sciatic nerve were recorded.

Results SNB proximal to the bifurcation had a shorter onset of sensory and motor block than distal bifurcation. Time taken for scanning was more, whereas needling time was less in the pre bifurcation group. Total time taken to perform pre bifurcation and post bifurcation SNB was (4.5+0.9) min and

4.5+1.0) min respectively, P=0.766 which is comparable. Demographic data, ASA grade, BMI were comparable in both the groups.

Conclusions In conclusion, SNB administered at pre bifurcation has faster onset of action compared to post bifurcation. Block performance time was comparable and independent of BMI in both the groups