EFFECTS OF BRACHIAL Plexus BLOCK APPLIED WITH DIFFERENT APPROACHES ON TISSUE OXYGENATION

1Azer İlbenği Kaptan*, 2Demet Coşkun, 2Gözde İnan, 2İrfan Gümür, 2Escan Yildirim, 2Nuray Camgöz Erlyıma, 3Akif Muhtar Oztürk, 3Ülünay Kanatlı. 1Anesthesiology and Reanimation, Şanlıurfa Training and Research Hospital, ŞANLIURFA, Turkey; 2Anesthesiology and Reanimation, Gazi University Faculty of Medicine Hospital, Ankara, Turkey; 3Orthopedics and Traumatology, Gazi University Faculty of Medicine Hospital, Ankara, Turkey

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

Background and Aims We aimed to investigate the quality of motor and sensory block, tissue oxygenation measured by Near Infrared Spectroscopy (NIRS), temperature and radial artery diameter change in patients who underwent plexus brachial block.

Methods Tissue oxygenation value and change (ΔNIRS) measured with NIRS probes in both extremities and temperature values measured with infrared thermometer were recorded in 105 patients who underwent interscalene, axillary and infracavicular blocks. Basal radial artery diameter was measured by ultrasound in the blocked extremity. The quality of sensory and motor block was evaluated according to pinprick and related muscle strength. After the blocking, all data were measured at regular intervals and recorded.

Results In all groups, ANIRS values were higher in the blocked extremity from the 2nd minute after the block. A statistically significantly higher Δ NIRS value was found in the infracavicular group at the 25th minute compared to the interscalene group. The temperature increase in the blocked extremity was significantly higher in the interscalene block group than in the axillary block group. The highest increase in temperature was observed at the 20th minute in the interscalene and axillary groups, and at the 25th minute in the infracavicular group. There was no difference between the three groups in terms of their effects on the diameter of A. radialis.

Conclusions We think that besides the evaluation of sensory and motor block after plexus brachial block with traditional methods, monitoring of temperature and tissue oxygenation on the side with block may provide an earlier and easier follow-up of the block.

Background and Aims Ultrasound-guided obturator nerve block is performed to prevent adductor muscle spasm during transurethral resection of bladder tumors. The aim of the study was to compare the effectiveness of a single-proximal injection protocol versus a double-distal injection protocol for obturator nerve block.

Methods A total of 60 obturator nerve blocks were conducted (NCT05540847) and the patients were divided into two groups. The first group received an ultrasound-guided single injection for obturator nerve block (proximal group), while the second group received a double-injection technique for obturator nerve block in transurethral resection of bladder cancer under spinal anesthesia (distal group). In proximal group, the local anesthetic solution (10ml bupivacaine 0.25%) was administered into the interfascial plane between pectineus and obturator externus muscles. In distal group, first injection was administered into the interfascial plane between the adductor longus and adductor brevis muscles and the second injection between the adductor magnus and adductor brevis muscles (10ml bupivacaine 0.25% for each). The grade of adductor muscle spasm, clinical effectiveness rate, duration of the block procedure, and any complications were documented. Patients who experienced grade four adductor spasms were transferred to general anesthesia.

Results The number of patients who did not experience adductor muscle spasms in the proximal group was significantly higher than in the distal group. The procedure time was shorter in proximal group.

Conclusions There was no significant difference in clinical effectiveness between the two groups. The proximal group which provides nerve block with less local anesthetic, maybe a strong alternative to the distal technique.

ULTRASOUND-GUIDED OBTURATOR NERVE BLOCK IN TRANSURETHRAL RESECTION OF BLADDER CANCER: A PROSPECTIVE RANDOMIZED COMPARATIVE TRIAL OF A SINGLE-PROXIMAL INJECTION PROTOCOL VERSUS A DOUBLE-DISTAL INJECTION PROTOCOL

1Yavuz Saygili, 2Selim Guven Kose, 2Kose Chian, 2Teylan Akkaya. 1Anesthesiology and Intensive Care, Health Science University, Ankara Ethlik City Hospital, Ankara, Turkey; 2Pain Medicine and Anesthesiology, Health Science University, Kocaeli City Hospital, Yenimahalle, Turkey; 3Alögöly, Health Science University, Kocaeli City Hospital, Kocaeli, Turkey; 4Pain Medicine and Anesthesiology, Health Science University, Ankara Ethlik City Hospital, Ankara, Turkey

Background and Aims Hip fractures pose challenges in patient management, especially when surgical risks outweigh benefits. inadequate analgesia from conservative treatment options prompted the development of new procedures targeting hip capsule denervation. We aimed to evaluate the efficacy of chemical neurolysis as a conservative treatment for hip fractures, within our department’s protocol.

Methods Patients who were deemed inoperable by either the orthopedists or anesthesiologist were evaluated for eligibility criteria and informed consent was obtained. A diagnostic block was performed under ultrasound guidance using 5 mL of 2% lidocaine in the pericapsular nerve group plane. With the needle in situ, the block’s efficacy was evaluated by performing flexion, internal and external rotation of the hip joint. If the block was deemed positive, the needle’s location was confirmed, and 6 mL of 99% alcohol was administered. Prior to needle removal, 1 mL of local anesthetic was flushed through the needle.

Results During the one-year period from May 2022 to May 2023, a total of five patients (aged 55 to 96) underwent the procedure. All were previously unable to ambulate. At the 1-day follow-up, one patient experienced pain, which resolved...

Abstracts