

B7 MODULATION OF MRNA EXPRESSION OF OXTRGENE FOLLOWING USE OF ULTRASOUND-GUIDED TRANSVERSALS FACIAL PLANE BLOCK FOR PREVENTION OF CHRONIC PERSISTENT POST-SURGICAL PAIN FOLLOWING CESAREAN DELIVERY-A PILOT STUDY

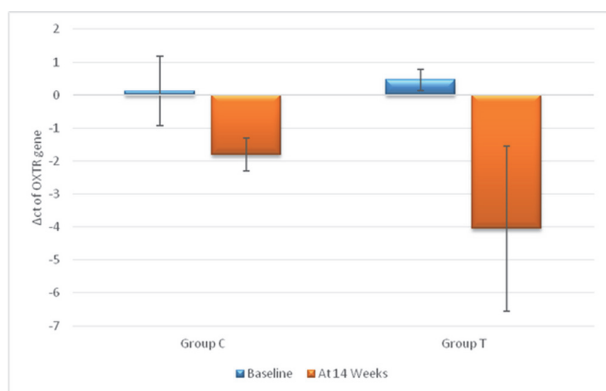
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Background and Aims Modulation of mRNA expression of OXTRgene following the use of ultrasound-guided transversals fascia plane block when compared with wound infiltration for post-cesarean pain management for prevention of chronic persistent post-surgical pain (CPSP).

Methods The present randomized, controlled study was conducted following IEC- Human approval, prospective CTRI registration and written informed consent from participants. All patients of ASA-I and I undergoing cesarean delivery (CD) under SAB were included. Patients were randomized into two groups, patients in group C received standard wound infiltration using 20 ml of 0.375% ropivacaine and patients in group-T, received bilateral ultrasound-guided Transversalis fascia plane block using 20 ml of 0.375% ropivacaine at the end of the surgery. OXTR gene expression was done as per standard protocol from the samples withdrawn at baseline and at the end of 14th week. Un-paired student t-test, Mann-Whitney U test and Pearson correlation were used.

Results Finally, 60 patients with 30 patients in each group were included. The mean delta Ct of OXTRgene expression at baseline was comparable between the two groups; however, upregulated in group T at 14' week i.e. 2.41 ± 0.72 vs 1.61 ± 0.84 . Similarly, the fold changes of OXTRgene expression in test group at the end of 14th week was higher i.e. 7.44 vs 4.35. A significant positive correlation was observed between the OXTR gene expression and pain intensity at 14th week.



Abstract B7 Figure 1 Comparison between Δ ct of OXTRgene expression

Conclusions A significant up-regulation of OXTRgene and its significant positive correlation with pain intensity following TFPB validates the efficacy of TFPB for prevention of CPSP following cesarean delivery.

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B8 THE MEDIAL FEMORAL CUTANEOUS NERVE OFTEN INNERVATES PART OF THE “CLASSICAL SAPHENOUS NERVE TERRITORY” ON THE MEDIAL LOWER LEG AND MEDIAL MALLEOLUS

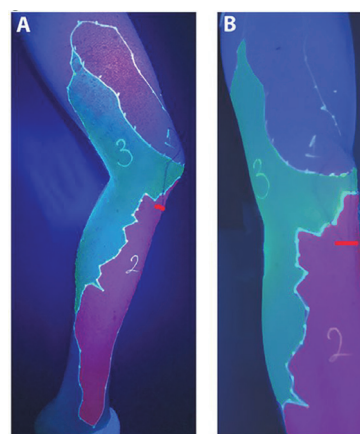
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Background and Aims The saphenous nerve (SN) is described as innervating the anteromedial knee area, the medial part of the lower leg and the medial malleolus (MM), sometimes extending to the medial foot¹. However, it has been shown that the anteromedial knee area is most often innervated by the medial femoral cutaneous nerve (MFCN)². Furthermore, a sub-study of data from a recent volunteer trial showed that the MFCN (anterior or posterior branch (MFCN-A, MFCN-P)) often innervates part of the “classical saphenous nerve territory” on the medial lower leg, sometimes including the MM³. This knowledge is important for correct diagnosis and treatment of chronic neuropathic pain in this area. The primary aim was to explore the distal cutaneous innervation of the MFCN.

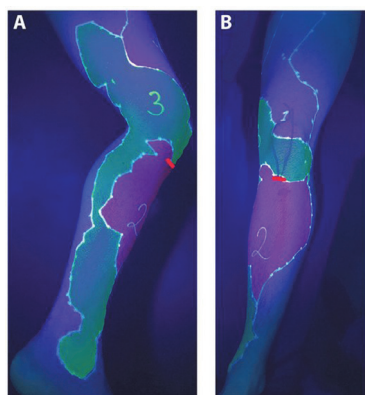
Methods Post-hoc analysis was performed on photographic material from a recently concluded randomized, double-blind volunteer trial.³ Extensive photo documentation of the areas of cutaneous anesthesia after SN block and MFCN block or selective MFCN-A block was reviewed in order to characterize the sensory distribution of the MFCN.³ The medial lower leg (MLL) was defined as the anteromedial crus distal to the tibial tuberosity.

Results The non-selective MFCN block anesthetized part of the MLL in 67% and the MM in 28%. Selective MFCN-A block anesthetized part of the MLL in 67% and the MM in 13% (figure 1–3).

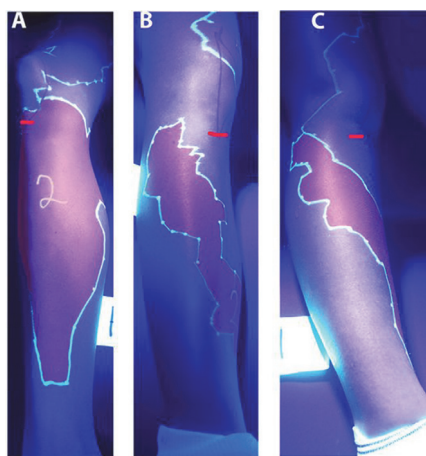


Abstract B8 Figure 1 Shows an example of MFCN innervation of the medial lower leg. The left leg of a volunteer is shown in medial (1A) and anterior view (1B). The tibial tuberosity is marked with a red line. Areas of cutaneous anesthesia after SN block (magenta area) and MFCN block (green area) are seen in both views. The MFCN innervates part of the medial lower leg, however, the SN innervates the very distal part including the medial malleolus. Photographic material from trial (3) approved by the Central Denmark Region Committee on Health Research Ethics (1–10-72–266-20) and Danish Medicines Agency

(EudraCT 2020–004942-12). MFCN, medial femoral cutaneous nerve; SN, saphenous nerve. Printed with permission from Siska Bjørn.



Abstract B8 Figure 2 Shows an example of MFCN innervation of the medial lower leg including the medial malleolus. The left leg of a volunteer is shown in medial (2A) and anterior view (2B). The tibial tuberosity is marked with a red line. Areas of cutaneous anesthesia after SN block (magenta area) and MFCN block (green area) are seen in both views. Photographic material from trial (3) approved by the Central Denmark Region Committee on Health Research Ethics (1–10-72–266-20) and Danish Medicines Agency (EudraCT 2020–004942-12). MFCN, medial femoral cutaneous nerve; SN, saphenous nerve. Printed with permission from Siska Bjørn.



Abstract B8 Figure 3 Shows three examples of cutaneous anesthesia after SN block (magenta areas). 3A, 3B and 3C are anteromedial views of three right legs from different volunteers. The tibial tuberosity is marked with a red line. The cutaneous area innervated by the SN was often found to be smaller and more anterolateral than the classical description (3B, 3C). In 3A a more classical distribution is seen, however, the SN innervation area does not include the MM. The MM was only innervated partly or completely by the SN in half of the cases. Photographic material from trial (3) approved by the Central Denmark Region Committee on Health Research Ethics (1–10-72–266-20) and Danish Medicines Agency (EudraCT 2020–004942-12). MM, medial malleolus; SN, saphenous nerve. Printed with permission from Siska Bjørn.

Conclusions In the majority of cases, the MFCN seems to innervate part of the classical saphenous nerve territory on the medial lower leg. This knowledge is important for correct

diagnosis and treatment of acute pain or chronic neuropathic pain.

B9 COMPARISON OF THE EFFICIENCY OF ULTRASOUND GUIDED ERECTOR SPINAE PLANE BLOCK AND RHOMBOID INTERCOSTAL BLOCK IN MYOFASCIAL PAIN SYNDROME

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Background and Aims Myofascial pain syndrome (MPS) is a chronic pain syndrome characterized by the presence of myofascial trigger points. Pharmacology, physical therapy, and injections are the most commonly used methods in treatment. Here we compare the effects of ultrasound-guided erector spinae plane block (ESP) and rhomboid intercostal block (RIB) used in the treatment of MPS.

Methods Following IRB approval and Clinicaltrials.gov registration in this randomized controlled, double-blind study, MPS patients were recruited into two groups of 30 participants each. In group ESP, 20 ml of LA and corticosteroid mixture was injected by applying ultrasound guided ESP. In Group RIB, 20 ml of LA and corticosteroid mixture was injected by applying ultrasound guided RIB. Numerical rating scale (NRS) for pain assessment was evaluated before treatment, immediately after treatment, on day 1, 1, 2, 4 and 6 weeks. In addition, the Short Form-36 Health Survey (SF-36), the Neck Disability Index (NDI), and patient satisfaction were noted before and at 6 weeks after treatment.

Results Demographic data were similar between groups. A significant decrease was observed in NRS scores at all follow-up points in both groups, and there was no statistically significant difference between the two groups (Table 1). SF-36 and NDI scores showed significant improvement in both groups, and no statistical difference was found between the two groups (Table 2).

Abstract B9 Table 1

Table 1: Numerical rating scale values of the groups

NRS	RIB	ESP	p
Pre-treatment	6.2 ± 0.8	6.03 ± 0.78	0.72
Immediately after treatment	1.13 ± 0.89	1 ± 0.94	0.57
1 day	1.23 ± 1	1.1 ± 0.88	0.58
1 week	1.26 ± 0.94	1.23 ± 0.77	0.88
2 weeks	1.33 ± 0.84	1.43 ± 1	0.67
4 weeks	1.56 ± 1	1.33 ± 1.02	0.37
6 weeks	2.06 ± 0.9	1.86 ± 1	0.42

NRS: numerical rating scale, Values are presented as mean ± standard deviation.