A MODIFIED ENERGY DTM™ SCS THERAPY: 6-MONTH OUTCOMES OF A PROSPECTIVE, MULTI-CENTER STUDY ON PATIENTS WITH CHRONIC BACK AND LEG PAIN

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Background and Aims Spinal Cord Stimulation (SCS) is an established treatment indicated as an aid in the management of chronic, intractable pain of the trunk and/or limbs. Differential Target Multiplexed™ SCS is a proprietary therapy supported by preclinical and clinical research. In a recent Randomized Controlled Trial, DTM™ SCS demonstrated superior back pain relief to traditional SCS. To further tailor therapy delivery, DTM derivatives with reduced-energy profiles are being investigated.

Methods The DTM-LE SCS Study (NCT04601454) is an ongoing prospective, multi-center, open-label, post-market study to evaluate the efficacy of a DTM™ SCS derivative therapy. Primary inclusion criteria were patients indicated for SCS and overall pain Visual Analog Score (VAS) of ≥6 with moderate to severe back and leg pain.

Results Fifty-seven subjects (57.9% female) were enrolled and 43 completed trials. Thirty-eight (38/43, 88.4%) had a successful trial period and 35 received a neurostimulator. At 3-months (n=32), the mean (%) change in overall VAS from baseline was -3.9 (-50.4%) and 75% of subjects reported satisfaction with the therapy. Furthermore, 68.8% of subjects improved to a less disabled category (Oswestry Disability Index) and 77.4% of subjects were in a better health state (EQ-5D). Outcomes from the 6-month visit will also be presented.

Conclusions Clinically meaningful pain relief, a high degree of therapy satisfaction, improved function, and improved quality of life were reported in this DTM™ SCS reduced-energy derivative study by patients with chronic back and leg pain. Energy conserving approaches have the potential to impact patient experience with both rechargeable and recharge-free devices.

COMBINING SOMATIC AND SYMPATHETIC NERVE BLOCKADE TO MANAGE A DIFFICULT CASE OF CHRONIC OROFACIAL PAIN

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Background and Aims A young woman in great distress presented with a decade plus history of bilateral nociceptive and nociplastic orofacial pain, with a significant TMJ component. Her case was complicated further by PTSD and fibromyalgia. Conservative treatments including oral medications, physical therapy, oral splints and psychological interventions had been trialed, as well as botulinum injections and TMJ arthrocentesis. At this time, she was being managed with a combination of medications including high dose opioids. None of these treatments had given sustained pain relief or improved quality of life.

Methods We decided upon an interventional management plan combining somatic and sympathetic nerve blockade. Targeting the worst affected side first, we performed stellate ganglion and superficial cervical plexus blocks along with dedicated auriculotemporal, posterior auricular and occipital nerve blocks. After success on one side, we performed mirror image blocks on the opposite side after a three month interval.

Results Pain relief was almost immediate following the blocks and was sustained for a number of months, along with a reduction in anxiety and distress. The success of the blocks allowed us to successfully wean the opioids with patient consent, and facilitated better engagement with the wider bio-psycho-social treatment offered by the multidisciplinary team, which has ultimately resulted in a significant improvement in function and quality of life.

Conclusions While interventions are not always the answer in chronic pain, with careful patient selection and in skilled hands, they can be a very useful adjunct to the struggling patient, while avoiding the potential complications of long term medications.

BOTULINUM TOxin INFILTRATION AS AN OPTION FOR TREATMENT OF PERSISTENT HEADACHE ASSOCIATED WITH COVID-19. CASE REPORT

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Background and Aims Different descriptions of long COVID have already been proposed, and the most common description includes symptoms lasting for over three months after the first symptom onset. One of the most frequent symptoms identified, besides fatigue and dyspnoea, is a new daily persistent headache.

Methods We describe a case of persistent headache associated with COVID-19, which had a poor response to pharmacological treatment. The patient scored a pain of 8 points in Visual Analog Scale (VAS). It was a widespread—affecting frontal, temporal, and occipital area—pulsating quality headache that worsened with mild physical activity.

Since Botulinum toxin type A has been used to treat chronic migraine for over a decade, we decided to try this therapeutic option after proving that the response to local anesthetics was positive.

Results She responded satisfactorily to bilateral greater occipital nerve block and infiltration of the frontal and temporal muscles with local anesthetic and corticosteroids, with an improvement during approximately 48 hours.

Two weeks later, we administered by ultrasound guidance 20 IU of botulinum toxin near the greater occipital nerve, and performed a mapping with botulinum toxin by administering it at different points: both trapezius, splenius, frontal muscles, bilateral orbicularis and bilateral temporal and parietal muscles. After seven days, the patient reported improvement of the symptoms (VAS 3) that were still present one month later.
Conclusions In conclusion, we propose that botulinum toxin can be a therapeutic option for persistent headaches associated with COVID-19. However, future research studies are required to clarify this possibility.

**B384** PERIPHERAL NERVE BLOCKS IN THE OUTPATIENT PAIN CLINIC OF UNIVERSITY HOSPITAL OF LARISSA DURING THE PANDEMIC

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**Background and Aims** Chronic pain management has been challenging during the pandemic, as all non-urgent healthcare services were imposed, leading to reduction or interruption of all outpatient and elective interventional procedures. We describe our experience regarding the use of Peripheral Nerve Blocks (PNBs) in the Outpatient Pain Clinic of UHL during 2021.

**Methods** A retrospective analysis of our database was performed. All patients who were treated with PNBs under ultrasound guidance were eligible. The cause of chronic pain, the type of PNB and the improvement of pain measured by Pain Outcomes Questionnaire (POQ) were recorded.

**Results** Sixteen patients were treated with PNBs in 2021. Five patients were treated for lower back pain, one for coccydynia, one for shoulder pain, two for chronic postoperative pain after total knee replacement, two after inguinal hernia repair and one after upper extremity fracture, one for lower extremity complex regional pain syndrome (CRPS) and one for red ear syndrome. The blocks that were used are sacroiliac joint block, coccygeal nerve block, interscalene block, the combination of adductor canal and IPACK, the combination of ilioinguinal and ilio-hypogastric blocks and the stellate ganglion block, Bier’s block and the greater auricular nerve block respectively. Based on the POQ, in all patients the pain was reduced by 20 – 60%.

**Conclusions** During the challenging time of the pandemic the Outpatient Pain Clinic of our Hospital treated drug-resistant patients with PNBs in terms of escalation of the multimodal pain approach.

**B385** SPHENOPALATINE GANGLION BLOCK: “A NOVEL ARROW IN THE QUIVER” AGAINST CHRONIC MIGRAINE

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**Background and Aims** Migraine is a common headache, affecting 11% of the adult population worldwide and causing significant disability. Although, there are many treatment options, these are often inadequate and with significant side effects. Transnasal sphenopalatine ganglion block (TSGB) seems to be an effective treatment for migraine, with minimal side effects. This report aims to present the results of TSGB therapy on twelve patients with chronic migraine in our Pain Department.

**Methods** Our team studied twelve patients, admitted to the Pain Department of GHAN, complaining about chronic migraine. After detailed history taking and based on the Simplified Diagnostic Criteria for Migraine, the diagnosis of chronic migraine was confirmed. According to patients, treatment with simple analgesics and triptans was ineffective and the decision for TSGB therapy was made. Each patient received 0.6 ml of 2% lidocaine in each nostril using the Tx360EU device. TSGB was applied every two weeks, for a total of three months.

**Results** Intending to evaluate the efficacy of TSGB, we assessed the recurrence rate of migraine attacks and pain intensity of each episode using the Numerical Pain Rating Scale (NPRS) on the fourth, sixth, and twelfth week after the first session. Five out of twelve patients referred complete recession of migraines, while six out of twelve referred progressively significant reduction of the frequency of attacks and over 50% reduction of pain intensity in each episode. Only one patient referred no benefit from the therapy.

**Conclusions** TSGB is a simple, effective and painless modality for the management of chronic migraine, with minimal side effects.

**B386** APPLICATION OF RADIOFREQUENCY IN THE TREATMENT OF CHRONIC OCCIPITAL NEURALGIA: A REPORT OF TWO CASES

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**Background and Aims** Occipital Neuralgia (ON) is defined as unilateral or bilateral paroxysmal, shooting or stabbing pain in the posterior part of the scalp, representing approximately 4% of all cranial neuralgias. This report aims to present the effects of Radiofrequency ablation (RFA) of occipital nerves in two patients with chronic ON.

**Methods** We present the case of two female patients (48 and 53 years old), admitted to our Pain Clinic, complaining about ON, refractory to medical treatment (NSAIDs, Paracetamol, Triptans) for over 30 years. They referred over 15 episodes per month of sharp pain located occipitally, radiating frontally and at the cervix and characterized by paresthesias occipitally. After diagnostic blocks of greater(GON) and lesser(LON) occipital nerves we decided the application of RFA of these nerves. Peri-procedurally, the patients remained in the sitting position, with the cervix slightly flexed. After local infiltration, a 500mm, 22G, RF-Cannula (DIROS) with a 5mm active tip was placed at the point one-third medially of the way between the occipital protuberance and the mastoid process (for GON) and another one at the point two-thirds of the way between the inion and the mastoid process (for LON) bilaterally. After conduct sensory testing, Pulsed RF-thermocoagulation was initiated at 42°C for 10 minutes.

**Results** Seven days post-procedurally both patients presented completely relieved of headaches, stating complete return to everyday life. One month post-procedurally they referred annihilation of ON attacks and discontinuation of complementary medical treatment.