



7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Poster

Pain Management 2018

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Stool consistency is significantly associated with pain perception

Young-Chang Arai

Aichi Medical University, Japan

Objective: Gut microbiome is thought to influence human health and disease via the gut-brain axis. We hypothesized that the pathogenic bacteria affects pain perception. Moreover, the gut microbiome is related to stool consistency. The aim of the present study was to investigate the association between stool consistency and pain perception.

Methods: Thirty-eight healthy subjects participated in this study. The participants were assessed on their usual stool form (the Bristol Stool Form Scale: BSFS), constipation (the Cleveland Clinic Constipation score: CCS), degree of obesity, pain perception by mechanical stimulus, cold pain threshold, and a questionnaire on psychological state.

Results: The BSFS was significantly and positively correlated with pain perception and showed a correlation with anxiety states. Furthermore, pain perception was significantly correlated with anxiety states. However, there were no significant correlations between the CCS and any independent variables. In addition, we found that a significant contributor to pain perception was BSFS. Moreover, there were significant relationships among the psychological states, BSFS and obesity.

Conclusion: These results suggest that stool form is correlated with pain perception and anxiety status.

Recent Publications:

1. Shiro Y, Arai Y C, Ikemoto T and Hayashi K (2017) Stool consistency is significantly associated with pain perception. PLoS One 12(8):e0182859.

Biography

Young-Chang Arai has his expertise in evaluation and management of chronic pain.

arainon@aichi-me-u.ac.jp



7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

e-Posters

Pain Management 2018

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Phantom limb pain: The human biofield and the role of psychological trauma

Eric Leskowitz

Spaulding Rehabilitation Hospital, USA

Osher Institute for Integrative Medicine - Harvard Medical School, USA

Phantom limb pain (PLP) is a form of chronic neuropathic pain that responds poorly to treatments derived from the neuroanatomic understanding of pain, such as surgical ablation and anti-convulsant or narcotic medications. Several new psychological and behavioral treatments that have proven effective eye movement desensitization and reprocessing (EMDR) and mirror box therapy - have been explained by invoking neural plasticity and repatterning of the cortical pain matrix as their mechanism of action. Other novel treatments that are based on an energy medicine or biofield model also appear to be quite effective. Documented results have been reported for therapeutic touch (a non-contact intervention), acupuncture and acupressure. One approach, utilizing exposure and desensitization with a somatic component, is called emotional freedom technique (EFT or tapping). The patient taps their own acupuncture points while stating affirmations of self-acceptance regarding the negative emotions associated with the amputation. Results are enhanced when the psychological trauma of the amputation itself is addressed, a factor that is generally overlooked in the standard surgical approach to limb amputation. A speculative trauma/energy model for the etiology of PLP is useful in explaining several anomalous aspects of PLP (responses are often too rapid to be explained by neural re-organization, patients are able to sense external objects with their phantom limb, and therapists are able to sense the existence of the phantom limb's biofield in apparently empty space). The clinical efficacy of energy therapies can be understood by invoking the blockage and release of emotional energy, which may be equivalent to, or precursors of, the micro-currents and electromagnetic potential deviations known to develop at acupuncture points. This model, analogous to the well-documented phantom leaf effect, is proposed as a step in the development of simple and effective energy-based and trauma-oriented treatment protocols for this widespread and largely treatment-resistant disorder.

Recent Publications:

1. Church D, et al. (2013) Psychological trauma symptom improvement in veterans using emotional freedom techniques. *Journal of Nervous and Mental Disorders* 201:153-160.
2. Leskowitz E (2000) Phantom limb pain treated with therapeutic touch. *Archives of Physical Medicine and Rehabilitation* 81:522-524.
3. Hubacher J (2015) The phantom leaf effect: a replication. *Journal of Alternative and Complementary Medicine* 21(2):83-90.

Biography

Eric Leskowitz MD was a Consultant Psychiatrist to the Pain Management Program at Spaulding Rehabilitation Hospital in Boston for over 25 years, and was also the Director of the Hospital's Integrative Medicine Task Force. A board-certified psychiatrist, he held an appointment with the Department of Psychiatry at Harvard Medical School for over 20 years. He has studied energy healing, meditation and hypnosis for almost 40 years, and has written widely and presented workshops internationally on the integration of subtle energy techniques with the allopathic medical model. He serves on the Advisory Boards of three journals and has edited three textbooks: *Transpersonal Hypnosis: Gateway to Body, Mind and Spirit*, *Complementary and Alternative Medicine in Rehabilitation, and Sports, Energy and Consciousness: Awakening Human Potential through Sport*. His documentary film about group energies and sports, "*The Joy of Sox: Weird Science and the Power of Intention*", was broadcast nationally in 2012.

eleskowitz@partners.org

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Effects of warmed carrier fluid on nefopam injection- induced pain

Hyung Rae Cho

Myongji Hospital, Hanyang University Medical Center, South Korea

Statement of the Problem: Nefopam is a non-opioid, non-steroidal analgesic drug with fewer adverse effects than narcotic analgesics and nonsteroidal anti-inflammatory drugs, and is widely used for postoperative pain control. Because nefopam sometimes causes side effects such as nausea, vomiting, somnolence, hyperhidrosis and injection-related pain, manufacturers are advised to infuse it slowly, over duration of 15 minutes. Nevertheless, pain at the injection site is very common. Therefore, we investigated the effect of warmed carrier fluid on nefopam injection-induced pain.

Methodology & Theoretical Orientation: A total of 48 patients were randomly selected and allocated to either a control or a warming group. Warming was performed by diluting 40 mg of nefopam in 100 ml of normal saline heated to 31-32°C using two fluid warmers. The control group was administered 40 mg of nefopam dissolved in 100 ml of normal saline stored at room temperature (21-22°C) through the fluid warmers, but the fluid warmers were not activated.

Findings: The pain intensity was lower in the warming group than in the control group ($P<0.001$). The pain severity and tolerance measurements also showed statistically significant differences between groups ($P<0.001$). In the analysis of vital signs before and after the injection, the mean blood pressure after the injection differed significantly between the groups ($P=0.005$), but the heart rate did not. The incidence of hypertension also showed a significant difference between groups ($P=0.017$).

Conclusion & Significance: Use of warmed carrier fluid for nefopam injection decreased injection-induced pain compared to mildly cool carrier fluid.

Recent Publications:

1. Girard P, Chauvin M and Verleye M (2016) Nefopam analgesia and its role in multimodal analgesia: A review of preclinical and clinical studies. *Clinical and Experimental Pharmacology and Physiology* 43:3-12.
2. Kim Y M, Lim B G, Kim H, Kong M H, Lee M K and Lee I O (2014) Slow injection of nefopam reduces pain intensity associated with intravenous injection: a prospective randomized trial. *Journal of Anesthesia* 28:399-406.
3. Dordoni P L, Della Ventura M, Stefanelli A, Iannace E, Paparella P, Rocca B, et al. (1994) Effect of ketorolac, ketoprofen and nefopam on platelet function. *Anaesthesia* 49:1046-9.
4. Bhatt A M, Pleuvry B J and Maddison S E (1981) Respiratory and metabolic effects of oral nefopam in human volunteers. *British Journal of Clinical Pharmacology* 11:209-11.
5. Evans M S, Lysakowski C, Tramer M R (2008) Nefopam for the prevention of postoperative pain: quantitative systematic review. *British Journal of Anaesthesia* 101:610-7.

Biography

Hyung Rae Cho is an expert in Pain Management. He served as a Military Anesthesiologist for three years in South Korea, the last division on the planet. He has been a Professor of medical school and now he is engaged in education, research and clinical care at Myongji Hospital in South Korea.

callmex@hanmail.net

Notes:

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

A randomized controlled, single-blind trial to investigate if an electrical current – Non-Interventional Pulsed Radio Frequency (NI PRF) - could improve neuropathic pain and symptoms in patients with diabetic peripheral neuropathy

Phyllis Berger

University of the Witwatersrand, South Africa

Background: The prevalence of peripheral diabetic neuropathy (PDN) in diabetic patients is the most common complication of diabetes. This is due to a consequence of long established hyperglycaemia that alters the physiology of peripheral nerves and precipitates a metabolic cascade leading to peripheral nerve injury. Neuropathic pain is pain that arises as a direct consequence of a lesion or disease affecting the somatosensory system. PDN can be assessed by validated neuropathic pain questionnaires and in this study the Doleur Neuropathique 4 (DN4) Test and the Brief Pain Inventory Shortform (BPI-SF) were selected to evaluate pain intensity and quality of life. Clinically it has been observed that the neurostimulation device in question, NI PRF has relieved severe pain and improved nerve conduction in various conditions, including diabetic neuropathy and other neuropathic pain and symptoms.

Purpose: This randomized and controlled single blind trial intended to investigate changes in the DN4 Test and the BPI-SF in patients with DPN after three treatments of the NI PRF electrical current. These changes would be evaluated from baseline, 3 weeks after the last treatment and then followed up one month, three months and six months after the last treatment. Patients with both type 1 and type 2 diabetes would be included in the trial. The tools assessing these patients will indicate whether this treatment affects neuropathic pain and symptoms (DN4) and implements improvements in the BPI-SF of: visual analogue scale (VAS) of worst, least, average and present pain, medication use and percentage improvements, interferes with: general activities, mood, walking and work ability, relations with other people, sleep and quality of life.

Method: The patients were randomized into a treatment and non-treatment/placebo group. Each patient was given an assessment of DN4 to determine if they qualify as having neuropathic pain (NP) with a score of 4 and 4+/10. If the patients have qualified they then continue with the BPI-SF and treatment and or placebo can then proceed. Treatment or placebo is provided at the sciatic nerve above the bifurcation at the popliteal fossa for 10mins on each leg. Patients were then given 3 treatments once weekly and then follow up only of the DN4 and BPI-SF is given at 3 weeks, 1 month, 3 and 6 months after the third/last treatment. Patients are reimbursed for their travelling expenses after each attendance – for treatments or the assessments only. The data is analysed by an independent statistician (Libhaber E, University of the Witwatersrand). At present 46 patients in both groups have been processed and it is intended to evaluate 80 patients to complete this study.

Preliminary Results: Presently, patients at baseline are – 46 patients, 23 in the active group (A) and in the 23 in the placebo group (B). The p values indicate the differences between the active and the placebo groups.

DN4 Test

The DN4 Test indicates a significant change from baseline to:

Post 3rd treatment – p value 0.011 (A = 22, B = 23)

These changes were maintained at:

1month follow-up – p value 0.047 (A = 20, B = 21)

6month follow up – p value 0.013 (A = 16, B = 12)

The VAS scores demonstrated significance at 1month for:

Present pain p = 0.018

Average pain p = 0.043

Worst pain p = 0.002

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

There was also significance at 6months in:

Mood $p = 0.041$ (A = 16, B = 12)

However at 3months no significance was demonstrated in the p values but this may have been due to confounding factors as one patient (A) had increased nociceptive pain (plantar fasciitis) that may affect neuropathic pain levels, another patient (B) having discrepancy between minimal neuropathic pain in the DN4 and yet severe pain in the VAS, another patient (B) requiring increased medication for night pain and finally a reduced number of patients in the 3month group with A = 19, B = 15.

There were no significant changes in medication use, interference with work and walking ability at 3weeks, 1,3 and 6months and it may be postulated that greater numbers of patients may yet demonstrate significance.

Conclusion: The preliminary results above indicate positive trends in neuropathic pain and symptoms after 3 treatments. This is consistent with clinical observations after 3 treatments with NI PRF electrical current in both neuropathic and nociceptive pain conditions from different aetiologies. The most significant changes occur at 1month in 'worst' pain – clinically this is usually evident after 3 treatments with the NI-PRF from any aetiology. The significance at 6months in mood is heartening as it indicates that the placebo effect had waned and the positive effects of treatment were still evident and it has also been notable that in other conditions treated with NI-PRF once pain has diminished other symptoms improve and full restoration of function often occurs.

Biography

She is a physiotherapist and acupuncturist. She qualified at the University of the Witwatersrand, Johannesburg, South Africa in 1966 and as her experience grew in orthopaedics and neurology, She developed a special interest in the treatment of chronic pain. This has led her to participate in various international organisations that specialise in the study and research of pain management. Her own experience of treating many chronic and intractable pain patients made me realise that often medication and interventions, including surgery does not always solve the problems.

pberger@icon.co.za

Notes:

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

The role of vestibular information beyond control of posture

Sayyed Hamed Fazeli, Mohammad Akbari, Ismail Ebrahimi Takamjani and Holakoo Mohsenifar
Iran University of Medical Sciences, Iran

Introduction: Vestibular dysfunction is a common, diagnostically challenging condition. The importance of diagnosing and managing vestibular deficits is well established. These deficits are associated with falls, morbidity, diminished autonomy, and increased health care costs, especially among elderly individuals who are at increased risk for gait disturbances, balance disorders and bone fracture. There is absolutely no doubt about the existence of widespread cortical vestibular representations, interestingly, there is still a lack of knowledge about the functions these cortical vestibular networks are involved in and with what other networks they overlap.

Materials & Methods: A review of the literature was performed in three databases (PubMed, Google Scholar, and Science Direct). Article types included review articles, systematic reviews, randomized controlled trials, and case control series for human subjects, published in English. The search query included vestibular, pain, multisensory integration, body representation, body schema.

Results: The vestibular system is a multimodal sensory system that is involved in many functions including reflexes and perception and consciousness. Baseline assessment and monitoring of the vestibular apparatus in patients receiving medication for chronic pain or underlying neurologic disorders could be valuable in determining the need for vestibular rehabilitation balance therapy further neurologic examination, or diagnostic imaging.

Discussion: Chronic pain is associated with a range of disrupted bodily representations. Vestibular stimulation may alleviate pain by contributing to ameliorate the impaired body schema and help restore the body matrix. The vestibular system codes movements of the head, indicating a new relation between the body and the external world. The vestibular system participates in a form of sensory signal management, changing the balance between the various sensory systems as the relation between the body and the external environment changes. This sensory rebalancing may be a crucial element in the brain's capacity to reorient towards novel or salient features in the environment.

Recent Publications:

1. Smith P, Geddes L, Baek J-H, Darlington C and Zheng Y (2010) Modulation of memory by vestibular lesions and galvanic vestibular stimulation. *Frontiers in Neurology* 1:141.
2. Ferrè ER, Day BL, Bottini G and Haggard P (2013) How the vestibular system interacts with somatosensory perception: A sham-controlled study with galvanic vestibular stimulation. *Neuroscience Letters* 550:35-40.
3. Ferrè ER, Bottini G, Iannetti G D and Haggard P (2013) The balance of feelings: Vestibular modulation of bodily sensations. *Cortex* 49:748-58.
4. Pfeiffer C, Serino A and Blanke O (2014) The vestibular system: a spatial reference for bodily self-consciousness. *Frontiers in Integrative Neuroscience* 8:31.
5. Mast F W, Preuss N, Hartmann M and Grabherr L (2014) Spatial cognition, body representation and affective processes: the role of vestibular information beyond ocular reflexes and control of posture. *Frontiers in Integrative Neuroscience* 8:44.

Biography

Sayyed Hamed Fazeli studied BSc Physiotherapy in Semnan University of Medical Sciences and MSc at Iran University of Medical Sciences and graduated in 2011. He is currently a PhD candidate of Physiotherapy in Iran University of Medical Sciences, Tehran, Iran and works on chronic neck pain. His interest research themes mainly include: effectiveness of physiotherapy, chronic neck pain, vestibular, chronic pain and musculoskeletal disorders.

hamed_fazeli62@yahoo.com

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Empathy-technique for patients with phantom limb pain

Vera A Ishinova

Federal Scientific Center of Rehabilitation of the Disabled, Russia

Introduction: The Empathy-Technique (ET) can be regarded as an upfront method of phantom limb pain (PLP) elimination. It is aimed at removing the excitation focus in the brain structures and increasing of antinociceptive system activity.

Objectives: The objective of the study is to determine the ET effect in treatment of PLP patients.

Materials: Seventy-nine patients suffered from PLP and empathy-technique method was used for neutralizing PLP and decreasing pain sensations in the stump trigger points (TP).

Results & Discussion: In contrast to high intensity of PLP (6.61 ± 0.22) before the empathy-technique session, substantially lower PLP intensity level (2.25 ± 0.17) ($p < 0.001$) was recorded after it. Testing colors of visual sensations by the patients with their eyes closed at the pain stimulation and after it, demonstrated that both PLP and pain in the stump TP were perceived in the colors of both the long-wave part of chromatic zone spectrum and the dark-gray colors of achromatic zone (pain colors). During the pain intensity reduction, there were changes of the visual sensation colors from pain colors to the medium and short-waves colors and light grey one (healthy colors). The decrease in PLP intensity and stump pain might be explained by the convergence of visual and pain modalities at the thalamus level. At this, visual and pain signals are transmitted along the thalamocortical pathways into the associative zones of cerebral cortex. There, an evaluation of incoming information is carried out and the flow of impulses is formed which enhances the inhibitory effect of the antinociceptive system. As the result, the focus of pathological excitation in the brain structures is removed. The values of empathy-technique are that, this not only eliminates (erases) the irritation focus and enhances the antinociceptive system activity, but also mobilizes the reserve resources, and has no side effects. Besides, the patients are able to practice this method independently out of clinic.

Recent Publications:

1. Cliff Richardson and Jai Kulkarni (2017) A review of the management of phantom limb pain: challenges and solutions. *Journal of Pain Research* 10:1861-1870.
2. Eugene Hsu and Steven P Cohen P (2013) Postamputation pain: epidemiology, mechanisms, and treatment. *Journal of Pain Research* 6:121-36.
3. Vera A Ishinova, Irina A Svyatogor and Ilja U Ishinov (2017) Peculiarities of using empathy-technique and biofeedback as psychotherapy methods for chronic pain of psychogenic origin. *Psychopathology and Addiction Medicine* 2(1):18-25.
4. Vera A Ishinova and Ilja U Ishinov (2016) Features of using of empatho-technique for 7 patients with phantom pain. *Psychopathology and Addiction Medicine* 17-25.

Biography

Vera A Ishinova is a Medical Psychologist at the Federal Research Center for Rehabilitation of the Disabled. Her educational background comprises three complementary research areas: medicine (Medical School, St. Petersburg), physiology (State University, Kalinin), and psychology (Institute of Psychoanalysis, St. Petersburg). She has an expertise in investigation and cure of chronic pain of various origins. She is the author of the patented method of psycho-physiological self-regulation (Empathy-technique), aimed at elimination of chronic pain. Empatho-technique is based on the concept of Kryzhanovsky et al. claiming that any disease is accompanied by the development of the excitation focus in the brain which quickly disappears after the irritation stops. If the irritant keeps functioning, the pathological system develops manifesting in the form of various symptoms including PLP. The effect of Empatho-technique is elimination of pathological excitation focus along with enhance in inhibitory effect of antinociceptive system.

vaishinova687@yandex.ru



7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Accepted Abstracts

Pain Management 2018

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Self-care remedies used to relieve dental pain among Sudanese in Khartoum State, Sudan: A cross-sectional study

Bassam Maged Ahmed

International University of Africa, Sudan

Aim: This study aimed to identify self-care remedies used to relieve dental pain among Sudanese in Khartoum state, 2016-2017, with assessment of related concerns such as predisposing reasons, and consequences associated with this usage.

Methods & Tools: The appropriate sample was obtained by non-probability purposive sampling technique. The data were collected by investigator-handled community-based questionnaire and all statistical analysis was done using IBM statistical package of social science (SPSS) statistics version 22.

Results: The study included 384 participants (75.5% male, and 24.5% female). Age of the participants started from 18 years old with most of the respondents aged between third to fifth decades of life. The most frequently used remedy was cloves (33.8%) alongside with a wide variety of other remedies. The potentiating factors for this usage included personal preference (47.4%), self-apprehension (23.7%), high costs and lack of dental health services (22.4% and 5.2% respectively) and combination of some reasons. Although a number of complications were associated with those remedies such as pain (7.5%), burning sensation (4.2%), irritation (2.3%), discoloration (2.1%), bad smell (1.3%), 73.2% of participants stated that they would encourage other people to use those self-care remedies. This suggests a low level of awareness about the risk of oral health problems among the study population.

Conclusion: Cloves is the most commonly used self-care remedy by the participants. Personal preference, among others, is the most predisposing motive for this usage. Upgrading awareness about risk of oral health problems, expanding health insurance services to include dental health care services, and demonstration of rational use of over-the-counter medicaments is needed.

sam.mashraqi2@gmail.com

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Omega-3 fatty acids: A novel approach for pain treatment

Carlos H Laino

National University of La Rioja, Argentina

The treatment of acute and chronic severe pain remains a common major challenge faced by clinicians working with the general population, and even after recent advances in the treatment of acute and chronic severe pain, there can continue to be manifestations of adverse effects. Chronic pain affects the personal and social life of the patient, and often also their families. In some cases, after an acute pain the patient continues to experience chronic pain, which can be a result of diseases such as cancer. There is growing evidence that omega-3 fatty acids can contribute to the reduction of pain. This presentation will describe an innovative technological development, both in its pharmaceutical composition (either morphine or methadone with omega-3 fatty acids) and in the pharmacological treatments associated with its use. In addition, the preclinical evidence concerning the analgesic effects of omega-3 fatty acids (eicosapentaenoic acid and docosahexaenoic acid) will also be explored. The main advantage of new pharmacological treatments using these pharmaceutical compositions lies in an improved pain control with a sub-therapeutic dose of these opioids, which can lead to the elimination or at least potential reduction of adverse effects.

carloslaino25@gmail.com

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

CBD oil for future prospect of pain management

Elizabeth Clamon
USA

Statement of the Problem: The increase in dependency and overuse of opioids in chronic pain patients leaves us needing to explore alternative natural treatments. During long-term treatment, the effective opioid dose can remain constant for prolonged periods. Some patients need intermittent dose escalation, typically in the setting of physical changes that suggest an increase in the pain (eg, progressive neoplasm). Opioid medications present some risk of abuse by patients as well. A structured review of 67 studies found that 3 percent of chronic non-cancer pain patients regularly taking opioids developed opioid abuse or addiction, while 12 percent developed aberrant drug-related behavior. In the US, Cannabidiol (CBD) is a schedule 1 controlled substance. These are defined as drugs with no medical use and likely to be abused. However, more research needs to be done to determine the benefits of CBD oil in the treatment of chronic pain.

Methodology & Theoretical Orientation: Researchers compiled the results of multiple systematic reviews covering dozens of trials and studies. Their research concluded that there is substantial evidence that cannabis is an effective treatment for chronic pain in adults. Research suggests pain and inflammation can be reduced through CBD use. Researchers also noted cannabinoids such as CBD could be a helpful new treatment for people with chronic pain. The animal model to see if CBD could help people with arthritis manages their pain. Researchers applied a topical gel containing CBD to rats with arthritis for 4 days. Their research noted a significant drop in inflammation and signs of pain, without additional side effects.

Findings: CBD oil is especially promising due to its lack of intoxicating effects and a possible lower potential for side effects than many other pain medications. They also found that subjects were not likely to build up a tolerance to the effects of CBD, so they would not need to continually increase their dose. Researchers noted cannabinoids such as CBD could be a helpful new treatment for people with chronic pain. A compound found in the cannabis plant is not harmful, has health benefits, and does not have abuse potential, experts at the World Health Organization say. After reviewing evidence from animal and human studies, the committee concludes that in humans, CBD exhibits no effects indicative of any abuse or dependence potential.

elizabeth@Clamonnaturalhealth.com

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Connecting occupant kinematics to neurological injury and chronic pain in whiplash: Associated visual, auditory and balance disorders in low speed rear impact collisions

Jason Mazarella

Director North American Spine Institute, Canada

Visual, auditory and balance disorders are common symptoms reported after a motor vehicle accident and are typically misdiagnosed as concussion related symptoms. This miss categorization of symptom causation can lead to the development of chronic pain based on the neurological response to continued nervous system over-stimulation. Nervous system hypersensitivity occurs due to spinal wind-up resulting in overstimulation of the dorsal root ganglion due to continued intermuscular c-fiber stimulation. Continued activation of intermuscular c-fibers can result in sensitization due to the presence of ischemic conditions in the muscle, which then leads to the development of trigger points. This continued C-Fiber stimulation of the spinal cord, results in continuous excitation of wide dynamic range neurons (WDRN) whose primary responsibility is to receive and monitor input from a beta type nerve fiber. A beta nerve fiber provides proprioceptive information to the dorsal column; however when acute pain converts to chronic pain, this proprioceptive information stops and pain transmission begins along this pathway. As proprioception is incorporated into our vestibulo-ocular and vestibulo-spinal reflex, continued excitation of WDRN activating a-beta type fibers can lead to visual, auditory and balance disorders post motor vehicle accident.

info@TorontoPainDoctor.com

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Clinical assessment of patients with orofacial pain

Jimmy Kayastha

Dental Health Solutions, USA

Chronic orofacial pain is a common health complaint faced by health practitioners. An accurate history and thorough head and neck examination followed by a thoughtfully constructed differential diagnosis usually requiring a multidisciplinary approach is the key to a successful treatment. It is common for patients with chronic orofacial pain to consult multiple clinicians and receive ineffective treatment before a correct diagnosis is reached. This problem is a significant public health concern. The possibility that the patient could have musculoskeletal, neuropathic, psychogenic and idiopathic conditions rather than a more common dental, sinus, or temporomandibular disorder must always be considered. The emphasis of this presentation is on the major clinical characteristics, general differential diagnosis and various therapeutic regimens of each of these conditions. Sir William Osler's maxim should always be remembered What you don't know - you won't diagnose.

kayastha@mynsu.nova.edu

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Efficacy of repetitive transcranial magnetic stimulation for the treatment of fibromyalgia

Nilson N Mendes Neto^{1, 2, 3}, Jessika Maia^{2, 3}, Waleska J do N Freitas³, Marcelo Rodrigues Zacarkim⁴, Juliéli N Teixeira³ and Levi H Jales Jr³¹University of California, USA²HUOL, Brazil³Centro Clinico da Dor, Brazil⁴Harvard Medical School, USA

Background: rTMS is a neuromodulation technique that has been used to treat FM. Data regarding to its efficacy and safety is lacking.

Objective: To assess the efficacy and safety of repetitive transcranial magnetic stimulation (rTMS) for the treatment of fibromyalgia (FM).

Methods: Open-label uncontrolled trial where 17 subjects diagnosed with FM were enrolled. The recruitment period was from January 2015 to May 2017. All subjects received rTMS in the left prefrontal cortex. The sessions were performed in a series of 3 to 5 consecutive days with maximum break of 2 days between the series. A minimum of 10 sessions was required. Parameters used: frequency (10 Hz), cycles of 10 stimuli with pause of 20 seconds between them. 20 minutes was the length of each session. Motor threshold was adjusted according to the acceptance of patients. Side effects, widespread pain, Q of L, depressive symptoms, insomnia and fatigue were assessed after each session.

Results: Among the 17 patients, 88.2% were women. Mean sample age of 55.7 years (ranging from 31–81 years). 41.2% reported significant improvement of pain after 3rd rTMS session. Improvement of depressive symptoms was observed after 3rd session in 50% of patients. Improvement of insomnia and fatigue was reported after 3rd session in 52.9% in 35.3% of patients, respectively. Increased quality of life was seen in 47.1% of patients after the 3rd session. Three patients report mild and transient symptoms such as tinnitus and headache.

Conclusions: In our experience, rTMS had a significant influence on pain reduction in patients with FM. Plus, it showed to be a suitable option for rapid relief of symptoms since most patients reported relief of widespread pain and psychogenic/psychosomatic symptoms after the third session. rTMS was well tolerated with minimal adverse effects. Additional studies are needed to determine optimal protocols for the use of rTMS for the treatment of FM.

doctormendes@gmail.com

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Opioid therapy for chronic non-cancer pain: Barriers in Egypt

Maher Fawzy

Cairo University, Egypt

Opioid therapy for non-cancer pain is the first line treatment in acute and postsurgical pain. Opioids are used in many situations in palliative care. Now it is widely used for chronic non-cancer pain. Trained qualified physician with updated knowledge for opioids indications, abuse and assessing risk is a must to prescribe opioids. Patient selection is very important as opioids are used for moderate to severe pain that has adverse impact on function or quality of life and potential therapeutic benefits outweigh potential harms. Informed consent is a mandatory with all details for use of opioids as a trial for treatment with goals, expectations, potential risks and alternatives to opioid therapy. Patients of chronic opioids therapy should be monitored periodically and as warranted by changing circumstances. Monitoring includes drug screening, frequent visits, single pharmacy, pill counting and urinal screening for abuse detection. Opioids in our country are highly restricted to cancer pain and only available in cancer centers. So it is very difficult under these regulations to prescribe opioids for chronic non-cancer pain. Egyptian Ministry of Health should change policies for delivery of opioids for chronic pain patients. Pain physicians are trying to change Egyptian guidelines for opioids prescription by raising the issue through national pain societies and WHO office in Egypt.

maherfawzym@yahoo.com

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Improving pain management knowledge

Lucia Amendano

Chamberlain College of Nursing, USA

Statement of the Problem: Pain is the most commonly presented symptom among patients who are admitted to the emergency department (ED). Unfortunately, many barriers impacting patient care and outcomes exist, in the ED, in regard to inadequate pain assessment, reassessment, and documentation. Thus, interventions to improve knowledge and practice to help nurses to improve pain assessment skills and documentation of pain are needed. Improving pain management knowledge requires more than knowledge acquisition. Based on the review of relevant literature, the need for innovative and effective pain management guidelines for nurses is well documented.

Purpose: The purpose of this quality improvement (QI) project is to determine the impact of evidence-based guidelines using TJC 2017 guidelines and the theory of acute pain management.

Methodology & Theoretical Orientation: The researcher used quantitative methods to examine the knowledge of nurses regarding pain management at Montefiore Nyack Hospital, only bedside nurses from the Emergency Department were recruited to participate in the study. An evidence-based guidelines intervention, created by the joint commission (TJC) standards, was implemented in the Emergency Department to increase compliance and utilization of pain assessment guidelines and policies among nursing staff. An middle-range theory of acute pain management was used as a nursing framework to assist implementing the guideline. Updated policies, pain scales, visual reminders, and an electronic health record icon resources were also implemented to ensure nurse compliance with TJC guidelines and policies. A pre- and post- test survey to measure the knowledge of nurses regarding pain management through the utilization of the knowledge and attitudes survey regarding pain (KASRP) instrument was used.

Conclusion & Significance: As one of the most trusted professions, nursing has a tremendous responsibility in providing quality care and outcomes. The data collected will be analyzed at the end of the DNP project implementation.

amenda97@gmail.com

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Peer volunteerism: Does it help in managing pain?

Mimi M Y Tse

Hong Kong Academy of Nursing, Hong Kong

Background: Chronic non-cancer pain is common among older adults and is often associated with significant physical and psychosocial incapacities. Older adults with pain are more depressed, anxious, and have reduced social interaction. Pain in older adults tends to be constant in nature, moderate to severe in intensity, and years long in duration. Prevalence of pain among nursing home residents is as high as 70%-80%. Nursing home residents are physically frail, live in closed nursing home environments, and may have difficulty seeking pain management strategies.

Aim: To recruit and train peer volunteers (PVs) to lead pain management program targeting the older adults living in nursing homes

Design: A pre-post experimental study

Method: A total of 45 peer volunteers were recruited from the Institute of Active Ageing, hosted by the Faculty of Health and Social Sciences of The Hong Kong Polytechnic University in the past few years. They completed the pain management training and visited older adults living in nursing homes that suffered from chronic pain. The pain management education program included physical exercises, interactive teaching and sharing of pain management using non-pharmacological strategies.

Results: The pain management program helped the nursing home residents to learn ways to soothe the pain, reduce the pain intensity, enhance activity of daily living, and increase happiness. Peer volunteers showed a significant increase in self-rated pain management knowledge.

Conclusion: Findings of this study indicate that education on pain self-management is essential. Due to the limited health care resources and budgets, training of laypersons provides an opportunity for them to transfer pain self-management knowledge to nursing home residents.

mimi.tse@polyu.edu.hk

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Pain management clinic: Non-pharmacological strategies in helping those with chronic pain

Mimi M Y Tse

Hong Kong Academy of Nursing, Hong Kong

Pain, regardless of its level, can have a negative impact on the physical well-being, emotions, and even quality of life of the individuals. Using painkillers is one method to relieve pain, yet, painkillers always have undesirable side effects. The Pain Management Clinic established in 2017, under The Hong Kong Polytechnic University. The clinic aims to provide pain management services to individuals with pain and associated physical and psychological problems involving multidisciplinary practitioners of nursing academics and traditional Chinese medicine doctors. The Pain Management Clinic adopts non-drug approaches to managing pain, such as music therapy, multisensory stimulation, aromatic foot reflexology, and traditional Chinese medicine, which cater to the needs and health problems of different people. In this presentation, two cases will be shared, Case 1: Ms. A, suffered from fracture spine because of traumatic accident happened in 2011. She was then paraplegic and wheel-chaired bound. Ms. A is living with her daughter and her husband, and two servants employed to take care of her. She also had history of diabetic mellitus, hypertension and high cholesterol, on regular medications and follow up. Case 2: Mr. B, aged 65, suffered from right forearm pain for 2 months. Mr. B is a retired account and living with his wife and his two adults children in sub-urban area. His past health is good and no any history of chronic illness. Author will share the treatment strategies for Ms. A and Mr. B including physical and psychosocial support to them and their family members using multi-disciplinary approach.

mimi.tse@polyu.edu.hk

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

A critically ill child with respiratory failure: How can we manage the pain and anxiety pre and post intubation

Nasser A A Haidar^{1, 2}¹Hamad Medical Corporation, Qatar²University of Science and Technology, Yemen

Pain is an important contributing factor to the prognosis of critically ill patient. This review will focus on dealing with sedation and analgesia for a critically ill pediatric patient at different stages in the management of respiratory failure. The child at this level of severe illness is not only suffering from pain due to the underlying disorder, but also anxiety because of what is going to happen in such unusual environment and surroundings. The patient is in need for effective but safe sedation and analgesia, accordingly selecting the appropriate drug among different agents is important, however, sometimes it is not easy to accomplish such objectives without securing the airway and mechanical ventilation. Even at post intubation and mechanical ventilation stage, several considerations needed in managing the pain and anxiety, the clinicians need to always remember that stopping patient's movement by muscle relaxants never treat pain or anxiety rather it increases the anxiety and more suffering without adequate sedation and analgesia. Similarly, sedation alone in painful procedures is not enough. Of paramount importance, in such situation it is important to have a protocol to assess the existence and severity in the absence of self-reported pain with more challenges if the patient is paralyzed. Then tailoring the pain and anxiety management to the patient's need while avoiding over tenement, not only because of possible immediate complications but also because of the withdrawal manifestation which need to be taken in consideration by preventive measures during therapy and effectively looked for and managed post-extubation and discontinuation of analgesic and sedative agents. The important messages are to ensure adequate but safe sedation and analgesia at different stages of the patient's status, which requires adequate knowledge and skills in pain assessment in such challenging situations.

haidamaa@yahoo.com

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

The computerization of pain management in line with pain scoring system

Rahali Lawali

Usmanu Danfodiyo University Teaching Hospital, Nigeria

Pain is an unpleasant sensation that can be multiple or single; it is multiple if it involves physical, psychological, cultural, social and spiritual pain. But it is single when it involves only one of these. Opioids remained as the first-drug of choice for the treatment of moderate to severe pain, a privilege that gives morphine double standards over the rest of analgesic drugs; it also becomes the gold standard against which other opioids are measured. Knowing the intensity of pain is an essential parameter upon which the appropriate treatment of pain rely on, a reason for which various scales were introduced for measuring pain intensity, such as: pain numeric rating scale, hand scale, facial scale, flacc scale, touch visual pain scale, each affected by one of the following barriers: age, health condition, knowledge of interpretation and differentiation, training. Hence, there is need to computerize pain management in form of a chart that will nearly cut across all barriers and interconnect all the basic parameters of pain management, such as: assessment of health problems, measurement of pain expressions, pharmacological and non-pharmacological treatments. Although, pain is subjective and measurement of pure pain is generally impossible, there is still a means of verifying standard pain.

rahali1436@gmail.com

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Clinical applications of electronic signal treatment and the combined electrochemical treatment

Robert H Odell

Neuropathy and Pain Centers of America, USA

The combined electrochemical treatment (CET) uses local anesthetics combined with advanced electronic cell signaling technology (EST) to mitigate or eliminate pain, allodynia, numbness and other symptoms of neuropathic pain. Its physiological actions are better understood using the principles of physics rather than pharmacology. In 2012, Brill noted that pharmaceuticals, which met Class I evidence-based standards for treating PPN, did not help the majority of PPN patients who received them, had significant adverse side effects and that interventions aimed at nerve regeneration may need to be employed. In 2015, Finnerup performed a systematic review and meta-analysis of the data describing pharmacotherapy for neuropathic pain, concluding that inadequate response to drug treatments constitutes a substantial unmet need in patients with neuropathic pain. In 2016, Rosenquist presented a systematic review and meta-analysis of available data concerning the pharmacologic treatment for peripheral neuropathy and concluded that it was marginal, frustrating and maybe even appalling. CET has been used to treat many forms of peripheral neuropathy, using ankle nerve blocks with EST. We have treated hundreds of peripheral neuropathic patients with an 80%+ success rate. Epidermal nerve fiber density testing shows nerve regeneration is occurring. Patients with peripheral neuropathies have shown significant symptom reduction and motor function improvement (especially foot drop). Patients experience reductions of pain, paresthesias, dysesthesias, allodynia and numbness, increase in strength and balance and improved quality of life. Long-term benefits include decreased medication use, improvement of balance, sleep and function occurs in a plurality of patients. An early retrospective study showed that 51% of patients maintained their improvements. Our overall clinical experience is now closer to 70%. Long term benefits to society include a significant preservation of healthcare resources since there are virtually no side effects and no recurring drug expenses with the CET approach.

rhodelljr@gmail.com

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Approaches to treatment of pain without the toxicities of current treatments

Victor J Hruby

University of Arizona, USA

Pain is the most ubiquitous and expensive medical problem in the world. Furthermore, the primary methods for treating pain, NSAIDs and opiates, are highly toxic and often ineffective. Investments in pain research and development are trivial compared to our other major diseases. There is much talk about the opiate epidemic but very little is actually being done. There are alternatives and there is much animal evidence that they work on prolonged and neuropathic pain, as well as acute pain. Author will discuss the design of novel peptide and peptidomimetic ligands that are very potent in treating acute, neuropathic and prolonged pain states, that are bioavailable and cross the blood brain barrier, that have none or greatly reduced toxicities of our current toxic drugs and do not lead to dependence or addiction. Most of these ligands are multivalent and have novel biological activity profiles.

hruby@emailarizona.edu

7th International Conference and Exhibition on

Pain Research and Management

October 11-12, 2018 | Zurich, Switzerland

Mirror therapy in neuropathic pain and disability treatment in patients with complex regional pain syndrome developed after the distal radius fractures

Viktor Kotiuk¹, Alexander Buryanov², Alexander Kostrub³, Ivan Zasadnyuk¹ and Roman Blonskiy¹¹SI Institute of Traumatology and Orthopedics of the Academy of Medical Sciences of Ukraine, Ukraine²Bogomolets National Medical University, Ukraine

Title: The influence of mirror therapy on neuropathic pain and disability in patients with complex regional pain syndrome developed after fractures of the distal radius.

Objectives: Mirror therapy is a simple to perform, cheap and effective for various pathological conditions method. The effect of mirror therapy on different aspects of pain and disability in complex regional pain syndrome type I (CRPS I) patients, is not well determined. The aim of the study was to investigate the influence of mirror therapy on pain and disability in patients with CRPS I developed after fractures of the distal radius.

Methods: We analyzed the results of treatment of 30 patients with CRPS I, developed after the distal radius fractures, with help of mirror therapy together with exercise therapy and medications. There were 20 patients with CRPS I developed as a result of the distal radius fractures treated only with exercise therapy and medications in the control group. The results were evaluated before the treatment, after three days and after 6 weeks of treatment according to VAS, McGill Pain Questionnaire, Pain Detect scale, ABILHAND.

Results: 86.67% patients experienced the positive effect of mirror therapy on the pain at least according to one of the scales after 6 weeks of treatment, and 70% - from standard treatment without mirror therapy. The positive effect was statistically significant accordingly to McGill Pain Questionnaire after 6 weeks of treatment compared to the control group and even accordingly to VAS. In some patients we observed improvements even after 3 days of treatment. Though they were less pronounced, the improvement in VAS was the least impressive among the others pain scales.

Conclusions: Mirror therapy can help to decrease the pain (mostly on neuropathic pain scales) and disability as an element of integrated treatment of CRPS I developed after fractures of the distal radius.

kotyuk_v@ukr.net