

To the Editor-in-Chief,

The recent past has seen a proliferation of information regarding mechanisms, diagnosis and management of neuropathic pain. Two recent papers by Gilron et al (1,2) have highlighted much of this evidence. One statement is particularly interesting, that "rigorous evidence supporting efficacy of nondrug therapy is limited" (2), especially in light of the subsequent statement that "neuropathic pain is best managed with a multidisciplinary approach" (2).

Among nondrug therapies for neuropathic pain are stimulation techniques, nerve blocking techniques and nerve lesion techniques. One of the nondrug therapies that has less exposure in North America is intramuscular stimulation, a technique developed and championed by Dr Chan Gunn, a physiatrist in Vancouver. Dr Gunn developed this approach for the treatment of myofascial pain while he worked with the Worker's Compensation Board of British Columbia. It is an extremely important and solid technique because of its theoretical background, understandable by any physiologist. It is based on Dr Walter B Cannon's hypotheses regarding homeostasis and the dysfunction that can arise in a physiological system when this homeostasis is interrupted, such as by denervation or withdrawal of normal neuronal function (3). Cannon writes, "When a unit is destroyed in a series of efferent neurons, an increased irritability to chemical agents develops in the isolated structure or structures, the effect being maximal in the part directly denervated". It has been shown that all structures, including their associated spinal reflexes, can develop supersensitivity. In contemporary terms, this would account for the central sensitization that is being so well-characterized as accounting for neuropathic pain, as well as some of the peripheral signs that accompany neuropathic pain. Clear examples of these peripheral changes are seen in patients with traumatic brachial plexus injury, complex regional pain syndrome I, traumatic and compressive nerve injuries, and others. Dr Gunn has derived his technique from applying these principles in the early days of his practice treating injured workers, and has gone on to validate his theories by successfully treating a large number of patients who suffered persistent pain following a traumatic injury or accident with a myofascial component. For example, many who presented with back pain showed no sign of injury. Yet, they were disabled for long periods and, upon physical examination, demonstrated tenderness over muscle motor points in affected myotomes (4). The success of this treatment is mirrored in the large number of patients who have found relief from their pain, as well as in the number of physicians in Canada and abroad who have learned this technique from Dr Gunn and who are now applying his approach in their own pain clinics.

I support the idea that more enquiry is needed into non-pharmacological therapies that can be incorporated into a multidisciplinary approach to treatment of neuropathic pain, as well as the plethora of other types of pain where patients report less than satisfactory relief. There are many

types of nonpharmacological therapies that are used extensively but lack rigorous evidence supporting efficacy. These would include the stimulation techniques, nerve blocking techniques and nerve lesion techniques cited above. Yet, it is interesting that in a recent overview of treatments of trigeminal neuralgia, no systematic reviews or randomized controlled trials were found comparing nerve block with placebo or no treatment (5).

One difficulty in establishing efficacy for nonpharmacological therapies is in running double-blind, placebo-controlled studies. Despite the failure to run respective double-blind, placebo-controlled studies, a recent Cochrane report (6) states that music reduces pain, increases the number of patients who report at least 50% pain relief, and reduces requirements for morphine-like analgesics.

One can then draw the conclusion that some nonpharmacological therapies are recommended and used extensively without supportive scientifically sound evidence. For example, prolotherapy has been used for over 50 years to treat low back pain despite the lack of any evidence on efficacy (7).

In my opinion, among the approaches that will benefit from rigorous studies directed at efficacy of nondrug therapy is intramuscular stimulation, as this appears to have a clear physiological basis as well as applicability, especially in the treatment of myofascial pain, and perhaps other applications as well. This would mirror the recognition at home and abroad by honours bestowed on Dr Gunn, such as the Order of Canada, the Order of British Columbia and, more recently, his election as a Fellow of the Royal College of Physicians in London, United Kingdom.

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