

Natureza do trabalho: Resumo

TÍTULO

USE OF LASER AND LED AS A COMPLEMENTARY AND ALTERNATIVE PRACTICE FOR THE CONTROL OF NEUROPATHIC PAIN

ÂNGELA MIDORI KURAOKA-OLIVEIRA, ANA CLAUDIA PICCINELLI, SIDNEY KAZUYUKI SATO, CÂNDIDA APARECIDA LEITE KASSUYA

UNIVERSIDADE FEDERAL DA GRANDE DOURADOS, UFGD, DOURADOS, MS, BRASIL

RESUMO

Neuropathic pain is a consequence of a lesion in the somatosensory system, as a result of a trauma, tumor or infection, with a prevalence of up to 17.9%. Symptoms are hyperalgesia, dysesthesia, allodynia and hypernociception. The most commonly used medicines are opioids, anti-inflammatories and antidepressants, however, this type of pain tends to be resistant to these drugs, which are often accompanied by side effects. Low power laser phototherapy has no thermal effect. Phototherapy with Light Amplification by Stimulated Emission of Radiation (Laser) is able to modulate the process of tissue repair by cell stimulation, reducing the inflammatory process. On the other hand, therapy with Light Emitting Diode (LED) has advantages over the cost/benefit when compared to laser and has the same wavelength (λ) and recent studies have demonstrated its antihyperalgesic and pro-inflammatory effects. In a systematic review of the literature on Pubmed database in the period 1994-2014, using the keywords, "low level laser therapy" or "led" or "laser therapy" or "phototherapy" and "neuropathic pain", four articles about laser in animal experiments using rats were located. Two of these studies evaluated the use of laser therapy (670 nm) on acupuncture points and demonstrated evidences in controlling pain and edema in neuropathic pain. The laser of 660 nm proved to be more effective than 980nm in control of neuropathic pain and functional recovery in the peripheral nerve. No articles were found on the use of LED in neuropathic pain in accordance with the search strategies used. LED and Laser therapy has shown to be promising as an alternative and complementary practice to control neuropathic pain. Additional studies should be conducted to verify the anti-hyperalgesic effects of Laser and LED in neuropathic pain.