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An Evidence-Based Review of Hemiplegic Shoulder Pain

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Purpose: Shoulder pain is the most frequent complication in patients with hemiplegia. In this light, this study aims to determine the effects of therapeutic interventions for hemiplegic shoulder pain.

Methods: A literature search involving six databases (PUBMED, EMBASE, the Cochrane Library, AMED, and CINAHL) was conducted to identify articles up to May 2013. The quality of each study was assessed using the Physiotherapy Evidence Database Scale (PEDro scale) for randomized controlled trials, and levels of evidence were assigned using a modified version of Sackett’s scale.

Results: 21 RCT studies (PEDro scores 6–9), 7 clinical trials, 7 case reports, 9 case series, 3 cohort studies and 3 observational studies met inclusion criteria. 5 studies observed the effect on acupuncture, while 9 studies addressed the use of botulinum toxin type A (BTx-A); 4 studies used corticosteroid injection; 4 studies assessed nerve block; 6 studies examined electrical stimulation; 3 studies evaluated exercise treatment; 2 studies looked at shoulder taping; 13 studies used various interventions. Acupuncture treatment was significantly effective for shoulder pain and shoulder subluxation with level 1 and 4 evidence. Nerve block provides an advantage in pain relief and overall arm function with level 1 and 4 evidence. Intramuscular electrical stimulation caused significantly less pain and subluxation with level 1 and 5 evidence. The use of BTx-A and corticosteroid injection appeared to be related to conflicting results. Whereas, shoulder positioning and taping provided no significant effects for shoulder pain, and use of surface nerve muscular electrical stimulation to the shoulder after acute stroke could not be recommended.

Conclusion: Our results showed that the use of acupuncture, intramuscular electrical stimulation, and nerve block provided higher evidence level and could be very useful in the management of hemiplegic shoulder pain patients.

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Thermal dose t43 measured for commercial moxas

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Purpose: The parameter t43, an equivalent exposure time at 43 °C, has been used to evaluate the thermal necrosis of tissue in thermotherapy. The study considers t43 as a potential thermal dose for moxibustion and has tested t43 for commercial moxas.

Methods: The parameter t43 was calculated from the time history of temperature measured for a direct moxa (corn type) and the 3 different types of indirect moxas (Al, mini and smokeless moxa). The temperature was measured at the centre of the bottom of the moxa during combustion using a needle type thermocouple.

Results: The t43 was shown to be even more different than the arithmetic difference in the temperature profile. The t43 measured for the direct moxa was 1.29E5 minutes, 100,000 times larger than the maximum of the indirect moxas. In the indirect moxas, t43 was 1.12 minutes for AL-moxa, 2.92E-3 minutes for mini-moxa and 6.40E-4 minutes for smokeless moxa, being more than 1,000 times different one another. The t43 of the direct moxa was 500 fold larger than the level inducing skin burn (240 min), whereas all the indirect moxas had t43 much smaller than the skin burning level.

Conclusion: The t43 was measured for the first time for various moxas and was found to be different about an order of 8 for the different types of moxas. The measured t43 suggests that the direct moxa produced the thermal dose far beyond the skin burning level while all of the indirect moxas were free from skin burn. The study claims that t43 will be a potential thermal dose parameter and, based on this, a future investigation into clinical efficacy and safety of

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Acupuncture therapy for treatment of diabetic peripheral neuropathy: a systematic review of randomized controlled trials

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Purpose: Acupuncture therapy has more than 2000 years history, and has been generally used in China to remedy diabetic peripheral neuropathy (DPN). This review aims to conduct a systematic review to assess the potential therapeutic effectiveness and safety of acupuncture therapy for the treatment of DPN.

Methods: We retrieved published randomized controlled trials about acupuncture therapy for DPN from their inception to August, 2014. Acupuncture therapy was defined as the