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Various techniques in muscle trigger point (MTrP) management

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Introduction: Myofascial Pain Syndrome (MPS) is one of the most common, non-articular forms of musculoskeletal pain. In a chronic pain centre 85% of 283 consecutive patients received a primary diagnosis of MPS. MPS is associated with “hyperirritable spots” or “trigger points” (MTrPs) within palpable taut bands of skeletal muscle or fascia that are painful on compression. These can give rise to characteristic referred pain, tenderness, and autonomic nervous system symptoms. Muscles with active MTrPs are tender and mechanically sensitive than normal muscle, which do not contain MTrPs. Of numerous treatment approaches, physical therapy (PT), including Ischaemic Compression and Myofascial Release, currently provides the most promise and symptomatic improvement. MTrP Injections (with or without local anaesthetics), spray and stretch and TENS have all shown benefit, while less stimulatory interventions, such as laser and ultrasound, have not convincingly been shown to be beneficial.

Objectives: To give an overview to the pain rehabilitation professionals about clinical reasoning behind the practical implementation of various MTrP therapy techniques such as Ischaemic compression, cross friction massage, myofascial release, positional release technique, muscle energy technique and INIT using a systemic review and video demonstration.

Conclusion: It will help the audience in guiding towards correct implication of the proper therapy based assessment.

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Comparative study of direct and indirect test of prediction oxygen consumption in non-ambulatory children with myelomeningocele

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Knowing that the low level of physical fitness potentializes the risk of development obesity and cardiovascular disease in children with myelomeningocele, aerobic capacity analysis in this population with disuse is of extreme importance. However, the operational difficulties of direct test (TD) quantified by measuring maximum oxygen uptake ($\text{VO}_2 \text{ max}$) during a maximal exercise test performed on arm ergometer leads to explore the effectiveness indirect tests (TI) application. Thus, the aim of the present study was to verify if $\text{VO}_2 \text{ max}$ from TD was compatible as estimated on indirect test (TI). Eleven wheel chair users volunteers with myelomeningocele, (8 to 15 years) performed TD (on a cycle ergometer electromagnetic brake KHL Elektroanlagen GmbH adapted for upper limbs and ergospirometer Vmax Sensor Medics) according to standardized protocol and one week later, performed TI proposed by Franklin et al. (1990). The variables measured in both tests are presented. Average Heart Rate (HR) at rest and peak showed no statistical evidence in Direct and Indirect test comparison. Comparison of BP values at rest obtained statistical difference evidence between TD and TI. The mean (SD) $\text{VO}_2 \text{ max}$ in TD was significantly higher ($p < 0.05$) than in TI indicated a variation of 24 to 56% between them. This data concluded that TI proposed by Franklin et al., (1990) was not applicable to the study population for estimate indirectly $\text{VO}_2 \text{ max}$, since this clearly underestimated the values recorded at TD, however represented a maximal exercise test model to obtain HR max but that needs to be explored for this type of population.

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