

P101 - A SYSTEMATIC REVIEW ON THE MANAGEMENT OF MYOFASCIAL PAIN SYNDROME OF THE LOWER BACK

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Introduction: Myofascial pain syndrome (MPS) is described as the sensory, motor and autonomic

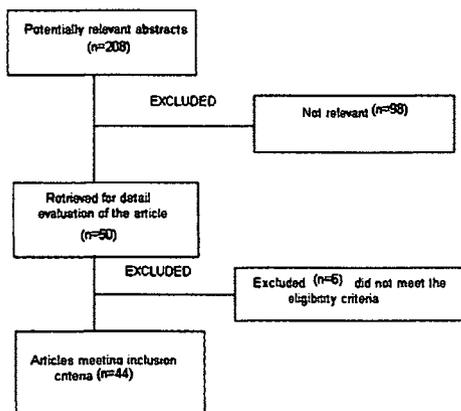
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symptoms caused by myofascial trigger points (TrP). TrP is a hyperirritable spot in skeletal muscle that is associated with a hypersensitive palpable nodule in a taut band. MPS can cause regional lower back pain (LBP), usually affecting one side of the body. There is commonly tenderness and spasm in the painful areas and, in chronic pain conditions, there may be tenderness in areas that are not painful. It is also common for patients with MPS to have poor sleep patterns with decreased recovery sleep (non-rapid eye movements). This is associated with awakening feeling unrested and daytime fatigue. Stiffness after inactivity is common. Several treatments have been used for myofascial LBP, however no one treatment is found superior to other. Both physical (muscle tension) and psychological (stress) factors can predispose to the formation of TrP. Optimal treatment of MPS requires a multifaceted approach. This can include education of the patient, stress reduction, stretching and exercise programs as well as physical therapy, sleep improvement, and medications all best organized by a single physician who tailors the therapies over time by customizing them for the individual patient. This review will update and add on information to the previous comprehensive review which was published in 2014 covering the studies till 2015.

Aim: The aim of this systematic review was to evaluate the published literature studies on the management of myofascial pain syndrome of the low back.

Materials and Methods: Literature searches were made on MEDLINE, Cochrane Library, CINAHL, PEDro and Google Scholar for studies published till November 2015. Appropriate key words and Boolean terms were used to extract relevant and more studies. Studies were included that evaluated on the management of myofascial LBP. Based on the eligibility criteria the articles were finalised and the rest of the articles were excluded from the systematic review (Figure 1). Only studies in English language were considered for the study. Published studies were included in the systematic review that evaluated the following: management of myofascial LBP, treatment outcomes, duration and additional factors relevant to the management of LBP. Study selection, methodological quality and data extraction were performed by 2 independent reviewers based on the PRISMA criteria. The studies were reviewed and summarized also for research design, methodology, results and conclusion.

Results: Only the studies which met our inclusion criteria were shortlisted for the review. Among the 208 studies extracted, only 44 studies were relevant to the search criteria, among which 23 were prospective clinical trials and others were prospective, retrospective, reviews and descriptive studies. The studies included the following common treatment approaches: physiotherapy, electrotherapy, aquatic therapy, biofeedback, dry needling, yoga, tai chi and cognitive behavioural therapy. The other recommendations which can add up to treatment effectiveness are ergonomic modifications, increased activity level, balanced diet and regular exercise. Other relatively few number of studies which showed effectiveness were hyperbaric oxygen therapy, botulinum toxin injection, acupuncture and horticultural therapy. Several studies focus on neuroscience education oriented active approach. However, one thing which was clear from the review was that the invasive methods of management offers less progress or lack of evidence in their effectiveness in the management of individuals with myofascial LBP, so also with the treatment using modalities like Ultrasound therapy and TENS.



Conclusion: The review shows that a multidisciplinary treatment involving a holistic approach with a combination of pharmacological, non pharmacological and alternative approaches can offer the best management for myofascial LBP.

Keywords: Myofascial low back pain, management, review

Figure 1: Flowchart of the study selection process