



PO-G-14-SUN2 EFFECTIVENESS OF SCAPULO-FOCUSED KINESIOTHERAPY TREATMENT IN PATIENTS WITH SHOULDER IMPINGEMENT SYNDROME AND ROTATOR CUFF TENDINOPATHY: A SYSTEMATIC REVIEW

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Background: Scapular positioning and motor dysfunction are important risk factors for developing Shoulder Impingement Syndrome (SIS) and Rotator Cuff Tendinopathy (RCT). Physiotherapy focus on scapular- dyskinesia treatment which is widely an important component of shoulder rehabilitation for these pathologies.

Purpose: The aim of this systematic review was to evaluate the effect of interventions of scapular focused kinesiotherapy (therapeutic exercise and manual therapy) in patients with SIS or RCT.

Methods: The systematic review was conducted using the databases: CINAHL, Medline/Pub Med, Pedro, Academic Search Complete and SportsDiscus searching for randomised controlled trials from inception to June 2018. Included criteria of studies : humans, adults, with SIS or RCT, interventions addressing scapula impairment movement with exercise or manual therapy, and written in English. Studies with different content were excluded. Articles titles and abstracts have been screened by two independent reviewers. Relevant articles were retrieved and read in full to determine inclusion or exclusion. The methodological quality and risk of bias were assessed using the Cochrane risk of bias tool.

Results: Six studies met the criteria and were included in this systematic review. Four studies indicating low risk of bias and two moderate risk.

Conclusion(s): Exercise-based treatment focused on the scapula control have statistically significant improvement in function in short and long term compared with shoulder general exercise, besides one study that both group were trained for the ergonomics in ADL and control lifting of their arm. In another study there was no improvement in function but they didn't use any stretching for muscle imbalance. Pain is reduced in all studies, but in three articles results are the same for the general exercise and scapula exercise, this may be due to the fact that was a combination with electrotherapy, closed kinetic chain exercise and ergonomic training. Moreover therapeutic programs in most articles improve the scapula position and movement especially the upward rotation during arm elevation and reduced scapula dyskinesia. Shoulder abduction and external rotation improved but there is conflicting evidence. Body posture correction was found especially for the humeral head protraction and kyphosis of thoracic spine in one study and joint positional sense improvement. The shoulder exercise rather than the scapula stability exercises seem to help all the parameters but not at the same level in short and long term. Passive mobilization of the scapula tended to improve its movement but not statistically significant nevertheless there was an important satisfaction for the patients with hands on treatment. No evidence was found for improvements in shoulder ROM, in strength of shoulder muscles and reduction of symptoms with scapular - focused treatment addressing patients with specifically rotator cuff tendinopathy and not SIS which is an umbrella syndrome.

Implications: The use of scapular-focused exercise therapy in patients with SIS seems to have some evidence, but there is a need for more randomised control trials to

strengthen the evidence for the clinical outcomes, with long term results. Furthermore essential need is future research to investigate the role of scapula- focused exercise therapy in RCT and the effectiveness in shoulder mobility and muscular strength.

Key-Words: Scapula dyskinesis treatment, Shoulder Impingement Syndrome, Rotator cuff tendinopathy

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