

Effects of Diaphragm Muscle Therapy on Pain and Shoulder Movement in Subjects With Rotator Cuff Injuries

Unique Protocol ID: UComplutenseMadrid Fasisifer1

Official Title: Effects of Diaphragm Muscle Therapy on Pain and Shoulder Movement in Subjects With Rotator Cuff Injuries

Investigator: Isidro Fernández López

Sponsor: Universidad Complutense de Madrid

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Objective

To assess the influence of physical therapy on diaphragm muscle, via manual release or active mobilization, in subjects with rotator cuff injury comparing with a standard treatment of shoulder myofascial trigger points release

Methods

Randomisation

Patients who meet the eligibility criteria are randomised to receive any of three different treatments through the informatic application provided by the web www.randomization.com.

Interventions

This study is a randomised controlled trial, the protocol intervention includes:

- 1.- Preintervention assessment of shoulder mobility: flexion, abduction and external rotation at 90° abduction in supine, registered with a Baseline digital inclinometer.
- 2.- Preintervention Numerical Rating Pain Scale in shoulder mobility: flexion, abduction and external rotation at 90° abduction standing.

3.- Preintervention Pain pressure threshold assessment with an algometer in supraespinatus tendon and xiphoid process.

4.- Intervention treatment in each arm:

a.- Experimental group 1: 3 diaphragm stretching techniques according to Chaitow, Ward and Ricard, performed by a physical therapist are employed in this experimental group during 10 minutes. The participants are situated in a seated, supine and side bending position.

b.- Experimental group 2: diaphragm mobilization through active hipopressive gymnastic exercise according to Caufriez in two different postures.

c.- Active comparator group: A ischemic compression technique in most painful myofascial trigger points in the infraespinatus and supraespinatus muscle during one minute each one.

5.- Postintervention assessment of shoulder mobility: flexion, abduction and external rotation at 90° abduction in supine, registered with a Baseline digital inclinometer.

6.- Postintervention Numerical Rating Pain Scale in shoulder mobility: flexion, abduction and external rotation at 90° abduction standing.

7.- Postintervention Pain pressure threshold assessment with an algometer in supraespinatus tendon and xiphoid process.

8.- Statistical analysis and results interpretation.

Every assessment and treatment is performed by a physical therapist who has more than 10 years of experience in that kind of interventions.