

EFFECT OF MAITLAND MOBILIZATION ON ADHESIVE CAPSULITIS PATIENT: A NARRATIVE REVIEW

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ABSTRACT

Adhesive Capsulitis is a condition in which pain and limiting range of motion of the shoulder joint. It is a self-limiting disease. The incidence of adhesive capsulitis in general population is approximately 3% to 5% but as high as 20% in patient with diabetes. In many physical therapy programs for subjects with adhesive capsulitis of the shoulder, mobilization techniques are an important part of the intervention. The purpose of this study was to describe the effectiveness of maitland mobilization in subjects with adhesive capsulitis of the shoulder. A search was undertaken in three databases: PubMed, Cochrane and Scopus from 2012 to 2018. Search limits included the English language and human studies. Search terms included adhesive capsulitis, frozen shoulder, Physical therapy, Physiotherapy, mobilization, maitland mobilization etc. The selection criteria of the studies included in which Maitland mobilization was given to the patient of adhesive capsulitis. There have been 11 online studies that meet the selection criteria in which maitland mobilization was given. The study confirmed that Maitland mobilization technique have proved their efficacy in relieving pain and improving R.O.M. and shoulder function and hence should form a part of the treatment plan.

INTRODUCTION

Adhesive Capsulitis is a syndrome defined as idiopathic restriction of shoulder movement that results in universal hindrance of the glenohumeral joint.¹ Another names for Adhesive Capsulitis are frozen shoulder, peri capsulitis, scapulo-humeral periarthritis, humeroscapular fibrosis, and periarthritis, stiff and painful shoulder.¹ Clinical features of the condition include pain, decrease joint range of motion and weakness of the muscles due to disuse.^{2,3} 2% to 3% of the general population of Adhesive Capsulitis of Shoulder is seen at the age of 40-65 years.³ Research suggests that the condition is started with an inflammation of the lining of the shoulder joint. Gradually this area thickens and results in the shoulder becoming stiffer and more painful.⁴ Clinically its progresses through four phases auto painful phase, freezing phase, frozen phase and thawing phase. the duration of acute phases from 0 to 3 months along with pain and stiffness in more than two directions.⁵

Maitland technique which is used to treat mechanical stiffness by the application of accessory oscillatory movements. This technique uses to restore motion of the joint surfaces and are graded according to the amplitude. I and II grade of this technique are used to treating joint which is limited by pain whereas III and IV grade are used to increase range of motion by stretching manoeuvres.⁶

Maitland illustrated and described his grading system in peripheral manipulation as follows: Grade I : a mobilization of small amplitude at the beginning is used. Grade II: a mobilization of large amplitude is performed in the central portion of joint play with no mobilization taking place at either limit of range. If the Grade II movement is performed near the beginning of the range the grade is referred to as "II". A grade of "II" assigned when Grade II is performed near the end of the range. Grade III: mobilization of large amplitude that is at the end of the range of joint play and continues to limit of joint play. The – and + grades are assigned according to the degree of vigorous movement getting a III + grade and the gentle movement getting a III – grade. Grade IV: a mobilization of small amplitude at the end of the range: and the grade is assigned + and – values according to the vigorous of movement at the end of the range as in grade III.⁵

METHODOLOGY

Search strategy:

Literature search was conducted in three electronic databases of PubMed, Scopus, Cochrane. No limitation was applied during the search. The studies which were done from 2012 to April 2018

were included in this study. The key terms used for the searches are adhesive capsulitis, frozen shoulder, mobilization, Maitland mobilization, physical therapy, physiotherapy etc. with Boolean operators like AND, OR and NOT. Reference list of relevant studies were also searched for the articles. Then downloaded articles were counter checked for duplication.

Selection criteria:

The selection criteria of the studies included in which Maitland mobilization was given to the patient of adhesive capsulitis. There have been 11 online studies that meet the selection criteria in which maitland mobilization was given.

LITERATURE REVIEW

Wolf JM, Green A, et.al in 2018 the result showed both the intervention i.e. ultrasound therapy and maitland mobilization resulted in positive outcomes, but comparing the highest level of positive outcome with in the intervention the Maitland techniques composed remarkable rate of recovery in regaining pain free range of motion when compared to the ultrasound and is effective in the treatment of frozen shoulder.

Kumar A, Kumar S, et. al in 2012, this study found that mobilization of shoulder must be added to the surprised exercise program to achieve goals of reducing pain improving ROM and function of adhesive capsulitis.⁷

Daara N. Panchal Charu Eapen in 2015 the result of present study demonstrated the patient treatment with end range mobilization shoulder greater improvement in range of motion when compared with group treated with most heat and electrical modality and stretching exercises improvement in pain severity end disability was similar with both the treatment. End range mobilization can be used for better improvement in range of motion particularly in acute stage.

PT Jayathosan Alageson in 2013 showed that Stabilization exercise in subject with adhesive capsulitis shoulder was treated with technique IFT and Maitland mobilization is more effective than exercise in the management of periarthritis.

P. Rawat et al in 2017, this study found that strength training in adhesive capsulitis will help to improve the function of the shoulder joint by effectiveness of rotator cuff strengthening exercise to joint mobilization and Maitland joint mobilization technique have been used.⁸

M.Lokesh et. al in 2012, Adhesive capsulitis periarthritis effected 2.5 mobilization technique was applied with the intensities according to Maitland grades III and IFT was given per 15 minutes in the quadripolar method to shoulder for pain relief.

Saba Aijaz ali, et.al in 2015: both normal manual mobilization therapy along with general exercise and exercise alone brought improvement in outcome measure scales for pain, glenohumeral range and shoulder pain and disability index but none of intervention is significant effectives over one another in Weeks of treatment.⁹

A. Anitha , J Sridevi,S. Anusuya et al. in 2019: From the result , it was concluded that subjects with periarthritis shoulder elicited more substantial benefits in reducing pain AND improving the join range and the functional ability by adding end range mobilization technique to goal standard physical therapy, thus the finding suggested end range mobilization technique should be applied along with conventional physical therapy during the management of periarthritis shoulder to reduce pain and provide a better improvement in the joint range as well as with the functional performance of the patient, thereby preventing further disability and reoccurrence.¹⁰

Jacob I J, Ganesh S, vengata Subramani m in 2015, This study has found sufficient level of evidence for physiotherapy in the treatment of adhesive capsulitis the shoulder. in particular, manual treatment must be combined with commonly indicated exercise or conventional physiotherapy, as it remains the standard care. this study is intended to guide physiotherapist in the appropriate use of MMT, soft tissue technique, exercise, and electrotherapy for the treatment

of adhesive capsulitis in the context of abliable evidence. more studies are also needed for more definitive conclusions about long term outcome.¹¹

Hericus M Vermeula ,piet M rozing,wim R Obermann , Saskia le cessie , In this study , HGMT proved to be more effective than LGMT in the management of adhesive capsulitis of the shoulder , however , subjects improved significantly with both treatment strateis, and the differences were small , future studies ,we believe , should investigate whether HGMTs applied in earlier stages of Adhesive capsulitis are as effective as in the present study . because the natural course of the disease remains a matter of dispute, the inclusion of treatment is advocated. In order to be able to detect small yet clinically significant difference,it is important to include sufficient numbers of subjects.

TK jain,NK sharma,et al in 2014 : from this review, therapeutic exercise and mobilization therapy are strongly recommended for reducing pain, improving ROM and function in patients with stage 2 and 3 frozen shoulder,while high grade posterior mobilization along with self-exercise in recommended for improving passive external rotation and abduction ROM, high grade mobilization and mobilization with movement along with self-exercise are recommended for improving function. low level laser therapy is strongly suggested for pain relief and moderately suggested for improving function but not recommended for improving ROM.¹¹

CONCLUSION

Maitland Mobilization are effective in the treatment of adhesive capsulitis. The present study was designed to know the efficacy of Maitland mobilization techniques adjunct with exercises in the treatment of idiopathic shoulder adhesive capsulitis by comparing with exercises alone.

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