

Effect of Matrix Rhythm Therapy and Traditional Physiotherapy Protocol for the Treatment of Periarthritis Shoulder - A Pilot Study

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Abstract

Periarthritis of the shoulder causes pain and loss of mobility for the patients. Traditional physiotherapy is suggested by most doctors for pain reduction and mobility enhancement along with pain medications for managing severe pain symptoms. The study aims at analysing the effects of matrix rhythm therapy (MRT) and traditional physiotherapy for the treatment of periarthritis of the shoulder. Based on a qualitative study and structured literature review the paper analyses the effectiveness of the combined treatment plan for periarthritis of the shoulders. The findings of the study indicate that combining traditional exercises of physiotherapy with MRT is highly beneficial and effective for reducing pain and increasing the mobility range of the shoulders. It uses vibrational massage of 8-12 Hz which helps in regulating the body with the rhythm at a cellular level. Therefore, in conclusion, MRT and traditional physiotherapy exercises are combined to reduce pain and effectively treat the periarthritis of the shoulders.

Keywords: periarthritis, frozen shoulder, matrix rhythm therapy, traditional physiotherapy

Introduction

Periarthritis of the shoulder is another form of arthritis which leads to the stiffening and pain of the shoulder joints. The primary cause of the symptoms is the accumulation of calcium crystals around a singular joint leading to inflammation. The condition causes the patients to experience immense pain and lose shoulder mobility. It is also attributed to chronic trauma and changes around the connective tissues. Periarthritis of the shoulder, however, is curable and requires proper physiotherapy and pain management treatments. The paper aims at

analysing the effects of matrix rhythm therapy (MRT) and traditional physiotherapy for the treatment of periarthrititis of the shoulder to identify the most effective and sustainable solution to this painful condition.

MRT is a newly established treatment which can be utilised for massaging muscles and enhancing blood circulation. As stated by Naik and Singh (2019), matrix rhythm therapy uses vibrational massage of 8-12 Hz which helps in regulating the body with the rhythm at a cellular level. It helps in relaxing the muscle, tissues and fascia. On the other hand, traditional physiotherapy protocol uses gentle stretching and massaging practices for pain reduction and improvement of mobility. MRT is rooted in massage therapy and traditional physiotherapy treatments are more exercise-based. The combined effect of MRT and traditional physiotherapy can accelerate the treatment process for periarthrititis of the shoulder, reducing pain and recovering joint mobility.

Methods

A simple and systematic methodology for research is followed for the study, ensuring that the data collection and analysis process can contribute to achieving the aim of the paper. A qualitative approach is adopted which is further supported by the deductive approach. A combined deductive and qualitative approach helps the paper to analyse the existing secondary literature on the topic of MRT and traditional physiotherapy for the treatment of periarthrititis of the shoulder. The descriptive study design is also adopted for the study as it helps in developing ideas based on a comprehensive analysis of gathered data and reaching a logical conclusion.

The secondary resources are collected from reliable electronic databases such as Google Scholar, ProQuest, PubMed and so on. These searches are conducted based on a keyword-based search which enables the study to acquire the required resources easily. Setting specific criteria for inclusion and exclusion based on a purposive sampling technique is established to

assist the data collection process. The criteria included the inclusion of peer-reviewed journal articles, and publications within the last 5-7 years, containing relevant keywords and published in the English language. A structured literature review of the gathered secondary resources is presented in the paper to illustrate a comprehensive perspective on the beneficial effects of MRT and traditional physiotherapy for the treatment of periarthrititis of the shoulder.

Findings

Beneficial effects of mrt and traditional physiotherapy for the treatment of periarthrititis of the shoulder

MRT is considered to be effective for providing pain relief and relaxing the muscles and tissues through vibrations in a specific rhythm. MRT uses a specific vibrational frequency that helps regulate the muscle vibrations and enhances oxygen supply to the muscles and tissues. According to Naik and Singh (2019), MRT is beneficial for reducing pain, increasing functionality and improving the skin temperature of patients with plantar fasciitis. The adoption of MRT for periarthrititis of the shoulder can increase the relief of pain by vibrating the tissues and muscles on a cellular level. The rise in skin temperature

associated with MRT is attributed to improved blood circulation, accelerating mobility recovery. Thus, MRT can be used beneficially for patients suffering from muscle pain, joint pain and stiffness. Periarthritis of the shoulder can lead to the dysfunction of joints and constraint the daily mobility capacity of the patients. Traditional physiotherapy is suggested by most doctors for pain reduction and mobility enhancement along with pain medications for managing severe pain symptoms. As per the words of Tang *et al.* (2021), exercises related to scapular stabilisation can produce effective results for patients, relieving pain and enhancing functionality. Traditional physiotherapeutic exercises are one of the most common and prescribed protocols of treatment for periarthritis. As the condition leads to stiffening of the joint and muscles, similar to a frozen shoulder, regular effective exercises help to regain the range of mobility for the patient.

Adoption of MRT and traditional physiotherapy both provide beneficial effects for the periarthritis of the shoulder. The primary aim of the treatment protocols for periarthritis is increasing functional mobility and relieving pain among patients. According to Sheikh and Telang (2022), the oscillating rhythm of the MRT increases lymphatic venous perfusion across the extracellular sphere, providing anti-edematous advantages, and leading to long-term and beneficial outcomes for leprosy and frozen shoulder.

The combined treatment of MRT and traditional physiotherapy can contribute to posture correction and pain relief for patients. As mentioned by Naik *et al.* (2022), Dynamic Exercise Program (DEP) and MRT implemented alongside traditional physiotherapy can be highly effective for the treatment of forward head posture (FHP) and associated pain and mobility issues. These can be used effectively for treating shoulder pain and mobility by ensuring that the patient is provided with the proper exercises required to gain physical mobility range along with vibrational massage on a cellular level that aids recovery from within.

Adoption Strategies For Combined Treatment Protocols

The adoption of combined treatment protocols for periarthritis of the shoulder is beneficial and effective for the patients as the exercises prescribed by traditional physiotherapy are aided by the oscillating rhythms of the MRT helping to relax the muscles and regain functionality. As stated by Munjewar and Patil (2022), MRT is considered to be a newly developed treatment strategy as a form of physiotherapy, primarily aimed at increasing the blood oxygen supply and relaxation of muscles and microcirculation improvements. The frequency of 8-12 Hz is expected to increase the natural healing powers within the body, penetrating deep into the tissues and conducting synchronised mechanical vibration. Thus, the adoption of MRT with traditional physiotherapy can reduce frozen shoulder, plantar fasciitis, chronic back pain, stroke and lymphedema. The combined strategy is adopted by various healthcare centres such as physiotherapy, orthopaedic, sports clubs and so on.

MRT not only enhances mobility but also contributes to the enhancement of elasticity. Ashwini *et al.* (2021) articulated that MRT is included in various treatment modalities nowadays as a complementing protocol for impacting the cells and increasing elasticity and mobility. Patients prescribed traditional physiotherapy exercises should be provided with an

MRT after every physiotherapy session to ensure that the mobility exercises can lead to long-term pain relief and mobility enhancement. As stated by Unal *et al.* (2021), MRT adoption helps significantly in toning muscles, increasing balance and improving gait parameters. The adoption of a combined treatment protocol for patients with periarthritis of the shoulders has beneficial effects as it helps to increase the movement ability of shoulder joints and relaxes the shoulder muscles. As periarthritis is a curable condition, the adoption of a combined strategy as the treatment protocol supports accelerated recovery and significant pain relief for severe symptoms.

Challenges of strategic adoption

There are however certain challenges that are identified during the process of adopting a combined treatment of MRT and traditional physiotherapy for periarthritis of the shoulder. According to Özcan *et al.* (2021), the equipment required for new machinery for physiotherapy requires hospitals and healthcare centres to invest financially. The scope of financial investment can be challenging for healthcare centres. On the other hand, as it is a relatively new treatment process, the proper knowledge and experience of professionals are limited which may impact the effectiveness of the combined procedure for periarthritis of the shoulders. Furthermore, Naik *et al.* (2022) articulated that MRT implementation requires the instalment of class IIA medical devices. Transformation of the infrastructure and support of healthcare organisations is required to ensure that high-quality MRT devices are installed for optimum effect. The overall barriers to the adoption of the MRT combined treatment with physiotherapy, however, can be mitigated with managerial improvements as it significantly helps patients with periarthritis of the shoulder.

Discussion

Based on the above-structured literature review it is evident that MRT is a new and technologically advanced procedure that can be used with traditional physiotherapy for patients with periarthritis of the shoulders. Joint pain in the shoulders and stiffness is a common and curable medical condition. However, it can be highly painful and reduces the capacity of mobility patients. The common treatment procedures for the condition involve pain management medication and exercises of physiotherapy. Combining traditional exercises of physiotherapy with MRT is highly beneficial and effective for reducing pain and increasing the mobility range of the shoulders. The MRT frequency of 8-12 Hz helps in improving the mobility and elasticity of muscles and tissues on a cellular level as it increases lymphatic venous perfusion across the extracellular sphere, providing anti-edematous advantages. Thus, MRT, which is adopted recently by healthcare centres, sports clubs and so on, helps in gaining recovery faster with a reduction of pain for the patients which is one of the most problematic symptoms of periarthritis.

It is also seen that the frequency used for the MRT helps in increasing the self-healing capacity on a cellular or tissue level which can be associated with accelerated recovery. As patients gain mobility through traditional physiotherapy exercises, regular exposure to MRT frequencies helps in balancing, toning and improving the muscles and

mobility. Patients with severe pain are also managed more effectively with the combined adoption of MRT and traditional physiotherapy. However, challenges of financial support, technological infrastructure and experience of application of MRT are considered. Regardless, with the progression of medical science and medical technology and evident physical benefits of MRT and traditional physiotherapy for patients with chronic pain, frozen shoulder and other such conditions. Moreover, the benefits of MRT are further seen during the treatment of bad posture which can cause pain and discomfort to the patients.

Therefore, based on the above discussion on the topic, it can be stated that the effects of MRT and traditional physiotherapy treatment protocols for periarthritis of the shoulder are highly beneficial, leading to long-term and accelerated recovery. The adoption of such a combined treatment protocol of vibrational massage and adequate exercise helps the patients to manage pain more effectively and regain their mobility with a penetrating frequency on a cellular level.

Conclusion

Periarthritis of the shoulder is a painful condition for patients, affecting their mobility and ability to conduct daily activities due to stiffness and pain in the shoulder joint. Pain and stiffness are also experienced in the muscles. The widely common treatment policy for the condition is physiotherapy exercises for regaining joint mobility and the prescription of pain medications for the management of severe pain. In recent times, MRT is being introduced which uses a specific frequency or oscillating rhythms of the MRT to help to relax the muscles and regain functionality. The paper analyses the effects of MRT and traditional physiotherapy treatment protocols for periarthritis of the shoulder.

It is seen that the MRT frequency of 8-12 Hz helps in improving the mobility and elasticity of muscles. Combining the MRT with traditional physiotherapy exercises achieves positive and effective outcomes for the patients with better pain management and accelerated regaining of elasticity and mobility. Despite the challenges of professional installation and experience, this treatment protocol is recommended for patients to achieve long-term recovery. Thus, the effects of the combined treatment plan with MRT and traditional physiotherapy for periarthritis shoulder are beneficial, enhancing the quality of care and treatment for the patients.

Future Scope

The study has a significant future scope as it provides reliable information on the development of a treatment protocol with a combined approach of MRT and traditional physiotherapy for the periarthritis shoulder. The scope of the study can be further extended to practical demonstration through randomised clinical trials for patients to outline the effectiveness of the treatment strategy. The results of the study can be implemented to ensure that awareness about the effectiveness of the MRT with physiotherapy exercise is properly presented. It can help patients to recover faster, with long-term beneficial effects. Patients with severe pain symptoms highly benefited from the

proposed treatment protocol as it targets the condition on a cellular level. Thus, the future scope of the study revolves around the practical implementation of the presented findings to transform the traditional treatment protocol for peri-arthritis of the shoulders.

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