Matrix Rhythm Therapy For Shoulder Joint and Leprosy - A Review Article

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Abstract

The Matrix Rhythm concept is founded on the premise that all cellular actions, whether preventive, therapeutic, regenerative, or destructive, operate largely through the cell's environment. The frequency of pulsation in muscle cells is 8-12 Hertz. Outside of the 8-12 Hertz range, muscle pulsation frequency is linked to aches, muscle tension, and other health issues. Variations in pulse frequency and the logistics of the life process at the cellular level are linked to changes in muscle flexibility and plasticity. Specific vibrations in skeletal muscles and the nervous system are activated and rebalanced by the MRT. The MRT generates an oscillating rhythm that increases lymphatic venous perfusion of the extracellular space, in which the anti-edematous benefits occur. We reviewed the Matrix Rhythm Therapy procedures in treating various pathological disorders in this research.

Matrix rhythm therapy is useful in treating complaints such as enhancing Range of motion, increase in muscle strength and lowering in pain, according to the result of this research. In terms of physical health, functional outcomes, and satisfaction, matrix rhythm therapy delivers long-term benefits for those with frozen shoulder and leprosy.

Keywords: Frozen Shoulder, ROM, Shoulder Joint, Matrix Rhythm Therapy, Visual Analog scale, Adhesive Capsulitis, Lagophthalmos, Perforated nasal septum, Trophic ulcers, Magneto mechanical waves.

INTRODUCTION

Matrix Rhythm Therapy (MRT), which includes the Vibromassage¹, is a new trend in training and rehabilitation programs, sports organizations, neurological, musculoskeletal, and physiotherapy. Dr. Ulrich G. Randoll invented Matrix Rhythm Therapy, which is based on the premise that all materials in the body oscillate or vibrate at an 8 to 12 Hz frequency, allowing the body to maintain its natural physiologic function. Any disruption in the rhythm, such as damage, inflammation, or distress, causes additional functional impairment and pain².

Matrix Rhythm Therapy aids in the restoration of normal tissue resonance³. A horizontal micro extension movement transmits the oscillator's lifting action to the body's organs, cells, and joints. As brain activity is regulated and the venous and lymphatic flow of the surrounding area of improved microcirculation is accelerated, the extracellular matrix (entrainment) is eliminated⁴. Frozen shoulder, post-burn sequelae, Diabetes Mellitus, Congenital muscular torticollis, myofascial trigger point, and other chronic disorders can all be healed with Matrix Rhythm Therapy⁵.

Leprosy is caused by Mycobacterium leprae and Mycobacterium lepromatosis, also refered as Hansen's disease⁶. Mycobacterium leprae causes this chronic infectious illness. It is principally disease of the peripheral nerves and skin. A clinical features with a light coloured, numb patch with or without peripheral nerve thickening. The symptoms include the breakdown
of intra-epidermal innervation, area of sensory loss, red lesions, accidental burns or injury, paraesthesia. If the disease is not treated, it can become chronic, resulting in a variety of physical abnormalities.

Weak hands with claw fingers, foot drop, facial paralysis, lagophthalmos, lack of eyebrows and eyelashes, perforated nasal septum, and Trophic ulcers are just some of the symptoms. Tuberculoid (TT), Borderline Tuberculoid (BT), Borderline (BB), Borderline Lepromatous (BL), Lepromatous (L).

The primary goal of rehabilitation is to cure the side effects of leprosy, with a secondary goal of designing lifestyle changes for patients, their family, and their relatives. It should begin as soon as the patient is diagnosed and continue till the patient is ready to resume regular things. The three categories of physical therapy for leprosy patients are identifying nerve function impairment (NFI), monitoring impairments, and avoiding new progression of condition7.

Frozen shoulder, also referred as adhesive capsulitis, which is characterized by ageing of the tissue, joint capsule thickening, and glenoid space shortening, all of which result in joint limitation and pain8. In the therapeutic setting, it is one of the most common shoulder issues. Slow beginning, discomfort around the deltoid insertion site, incapacity or Frozen shoulder symptoms include resting on the injury, uncomfortable and restricted elevation and external rotation of the shoulder, and a normal radiography profile. It progresses through 3 stages: (1) extreme pain, (2-15) growing ROM limitations followed by discomfort, and (3) pain relief and ROM recovery9.

**Methodology:**

The Google Scholar, Pubmed, Web of science and Physiopedia databases were utilized to search for papers using regular keywords Frozen Shoulder, Range of motion, Shoulder Joint, Matrix Rhythm Therapy, Visual Analog scale, Adhesive Capsulitis, Lagophthalmos, Perforated nasal septum, Trophic ulcers.
Review

1. Varun Naik et al: In order to determine the effectiveness of Matrix Rhythm Therapy on the frozen shoulder in terms of stress and physical function, 10 volunteers between the ages of 40 and 60 were tested and treated. The study’s participants were picked via a sampling method. Distress was measured using VAS, and joint ROM was measured using a universal goniometer. Before and after the first session, the VAS and joint ROM were measured. When Matrix Rhythm Therapy was used to heal a frozen shoulder, the findings showed a VAS and joint ROM both improved considerably statistically. It showed encouraging results in lowering pain by 30% and enhancing shoulder ROM after just one therapy session.

2. Derya Celik et al: Matrix Rhythm Therapy and stretching exercises for frozen shoulder comparison to see how Matrix Rhythm Therapy and stretching exercises compare in terms of short-term effectiveness in those with frozen shoulder. Both groups were treated for six weeks and given the same home fitness routine. The ROM was assessed with a typical goniometer. Functional skills were assessed using the Impairments of the Arm, Shoulder, and Hand score as well as the Constant score. The patients’ general health and satisfaction were assessed using the Short Form Health Survey-36 and the Global Rating of Change score, respectively. Before therapy, 3, 6, and 24 weeks after treatment, the variations (17-36) in dependent factors were investigated. In every parameter that measures success.

3. Sandeep Bhagwat: The role of Matrix Rhythm Therapy in the management of non-traumatic limited shoulder motions was investigated. A prospective longitudinal analytic study was carried out. The very first forty individuals reported to Niramay Rehab with limited and stressful arm motions and no evidence of injury or disease were included in the study. All patients got an hour of Matrix- Rhythm Therapy once a week for three weeks, followed by daily shoulder mobility exercises. The discomfort was measured using the Visual Analogue Scale on the first, eighth, and fifteenth days of treatment, and the ROM was measured using an instrument.

Conclusion

Th Matrix Rhythm Therapy exhibits a better and quick effect in increasing the affected ROM and, as a result, which is not witnessed in other conventional modalities with just one treatment setup in various pathological conditions and in various chronic diseases. The Matrix Rhythm Therapy can be effective in treating Leprosy also.

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