



A SYSTEMIC REVIEW ON THE ROLE OF MASSAGE THERAPY IN STROKE PATIENT'S

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ABSTRACT

Adults with chronic impairments are most at risk for strokes. Upper motor neuron syndrome symptoms and indicators in stroke survivors include agonist antagonist co-contraction, weakness, spasticity, and loss of coordination. Up to 50% of stroke victims endure lasting impairment. They all add up to functional limitations and impairments that might be quite expensive. Physical therapy may benefit those with impairments by enhancing their quality of life and disability. Manual therapeutic massage, which is one of the oldest medical treatments known to man and has been used all over the world since antiquity, is the most popular type of passive physical therapy. All back rub controllers use "mechano-transduction" to apply mechanical stresses to soft tissues. By raising blood flow and muscle warmth, massage may alleviate muscular stiffness and improve muscle compliance. There are several types of therapeutic massage. Swedish massage is the most popular kind of massage in the West. One of the most often used therapies for athletes looking to boost their performance is massage, which is based on Western concepts of anatomy and physiology. It needs the systematic application of physical pressure as well as the rhythmic stroking and pressure movement of soft tissue in order to develop or maintain health.

KEYWORDS – Stroke, Therapeutic massage, loss of coordination, etc.

INTRODUCTION

To balance the body's physical and emotional processes, this process uses a combination of strokes, shaking, stretches, and joint movements. Hands are used to manipulate the body's tissues during an Indian massage (Dalk). Dalk is based on the ideas of tanqiyah (expulsion) and imla (diversion) in unani medicine. Last but not least, Thai massage is a deep kind of massage that uses gentle, constant pressure on the muscles. It is believed that pressure

point massage, also known as Sen Sib, along the body's ten main energy channels may unblock energy, improve consciousness, and promote vitality.¹

It has been demonstrated that therapeutic massage efficiently elevates mood, fosters enjoyment, and lowers the likelihood of severe bad events and accidents. These folks include cancer patients, paralympians, those who have Parkinson's disease or dementia, as well as those who suffer constipation following a stroke.²

However, there is not enough proof to support the idea that therapeutic massage can benefit stroke sufferers. We did a meta-analysis and systematic review for evidence-based therapy due to the uneven reporting of therapeutic massage trends in earlier research. This systematic review's goal is to examine the evidence for the potential benefits of therapeutic massage on adult stroke survivors' quality of life, disability, motor function, spasticity, activities of daily living, anxiety, pain, balance, and gait. This comprehensive review and meta-analysis show that traditional physiotherapy and therapeutic Chinese massage (Tuina) are effective in improving motor function and reducing stiffness in stroke survivors, particularly in the subacute stage. Acupuncture and Tuina massage combined with each other also reduces symptoms.³

METHODOLOGY

The material of Massage Therapy for Stroke Patients has been collected from different articles, textbooks of physiotherapy, and authentic websites, like PubMed, NCBI, etc.

CONCEPT OF THERAPEUTIC MASSAGE

The therapeutic massage intervention, which was mostly employed in the sub-acute stage of the stroke, had good effects on motor function in the upper and lower limbs, making the findings of this review relevant. The recovery of upper limb function continues to be a top focus for patients, researchers, and doctors. Everyone was shocked to see that this evaluation only included one study that employed Swedish massage as an intervention. It lowered anxiety when used. This astonished us because Swedish massage is presently the most popular and commonly utilized style of massage in Western nations. Because previous writers have utilized Swedish massage to enhance spasticity and motor function in multiple sclerosis and cerebral palsy, we expected to discover more trials. There were no scientific publications in Asia, particularly China, nor were there any in Asia, Australia, Europe, or the United States.⁴

Although the two are connected, spasticity got more focus than motor function in the upper and lower limbs. A cycle of overactivity, contraction, and overactivity can be used to characterize the motor deficits that stroke survivor's experience. This cycle happens concurrently with the continuum of paresis, disuse, and cycle. In order to obtain optimum motor recovery and performance, both cycles need to be broken.⁵

In fact, when spasticity is eliminated, motor function is more completely recovered. Prior to the patient moving voluntarily, spasticity must be reduced in order to achieve some quality of mobility because this will impact the

person's neuroplasticity and rehabilitation. According to a number of scientists, the sensory system is the best predictor of severe spasticity and significantly influences how much of it may be reduced. It is still unclear what causes variations in the elastic modulus of spastic muscles in stroke survivors. One theory is that the stroke-induced changes to the muscle's structure. The muscular fascicles in the upper and lower limbs have been shown to be shorter.⁶

DISCUSSION

Stroke survivors appear to have greater excitability of the reticulospinal tract projections on the opposite side because of damage to the motor cortex and its descending pathways and the consequent unmasking of inhibition. Proprioceptors in the neck and periphery provide sensory data to the reticular nuclei. The reticular formation appears to help in voluntary movement preparation in addition to sensory integration. Massage therapy lowers muscle tension and neuromuscular excitability, boosts parasympathetic activity, improves blood flow, and releases chemicals that reduce stress and promote relaxation. It could reduce the reticulospinal tract's hyperexcitability. The therapist could find that the different therapeutic massage methods work best at bringing down muscular hyperactivity to make room for other therapeutic treatments. Results on quality of life, gait, balance, daily activities, and the severity of the stroke were equivocal. When Tuina is used with acupuncture or other forms of therapy, the tendency is in favor.⁷

Our findings are in line with the literature on pain. The idea that the neuroendocrine axis, the immune system, and the cutaneous nerves are all connected by a network is gaining more and more credence. The relaxation response is one of the many positive benefits of therapeutic massage, and it has been proposed that oxytocin is the mediator of the growth response. Patients recovering from strokes may find relief from anxiety and relaxation through massage. It was discovered that stroke survivors' anxiety levels have decreased as a result of these reviews' beneficial impacts. It's interesting that no studies have looked at the role range of motion plays in alleviating spasticity. The amygdala, hypothalamus, and anterior cingulate cortex, which are all involved in stress and emotion regulation, have all been shown to be represented by a combination of moderate pressure massage and movement based on data from functional magnetic resonance imaging. The findings of the right-hand tactile stimulation whole-brain meta-analysis emphasize the need of accounting for bilateral activity, particularly in the secondary somatosensory cortex.⁸

Nevertheless, while having a lengthy history in China, it has only recently been incorporated into Western society. The long-established Chinese therapy known as tuina knead is sometimes referred to as "The granddad of all restorative back rub treatments." Similar to acupuncture but without the use of needles, it acts on the organs, energy pathways in muscle groups, and places on the body in accordance with the meridian theory. By eliminating pathogenic elements, reestablishing a harmonic Yin-Yang balance, and integrating these steps with anatomical and pathological diagnostics, meridian dredging can be accomplished.⁹

Tuina can influence the layer of muscle beneath the skin, enhance skin tissue metabolism, control physiological and pathological conditions, clear blockages in meridians, and balance Qi (the whole life force) by promoting local blood and lymph circulation. Chinese medicine holds that disturbances in balance after a stroke are caused by disorders of Qi and the Yin and Yang. Because it balances yin and yang as well as qi (energy), it is also known as the "modulation of the imbalance between parasympathetic and sympathetic activity" in Western medicine. After a stroke, upper and lower limb spasticity, often referred to as "flaccidity of Yang and spasm of Yin," is caused by an imbalance in the Yin and Yang.¹⁰

Acupressure, myofascial release, reflexology, stretching, joint mobilizations, as well as circular rubbing, holding-twisting, rub rolling, pushing, kneading, spinning, shaking, wiping, and vibrating, are all included in tuina massage. These techniques are applied on certain body points. By manipulating muscles, tendons, and joints, the functional massage technique known as tuina transmits a lot of proprioceptive sensory signals to the brain.¹¹

CONCLUSION

To compare Swedish massage to therapeutic Chinese massage (Tuina) among stroke survivors, further clinical and experimental research is needed. The fact that Western stroke treatment manuals do not advocate therapeutic massage is remarkable. Stroke survivors may benefit from a rehabilitation program that blends Western and Chinese medicine. Last but not least, a patient may benefit greatly from touch therapy. There are certain limitations to the current review. To start, Asian patients make up the majority of the review's patient population. Second, there was just one paper that discussed Swedish massage for stroke victims. It is uncertain if Tuina massage will be helpful to Westerners.

CONFLICT OF INTEREST -NIL

SOURCE OF SUPPORT -NONE

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