Beneficial Effects of Massage Therapy on Spinal Cord Injury Patients:
A Review of Evidence-Based Sources
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Spinal cord injury (SCI) is a debilitating condition that affects millions of people worldwide. Statistics show that there are more than 17,000 new spinal cord injuries every year in the United States. Individuals with SCI experience significant physical and psychological challenges, including muscle spasticity, pain, and depression. Massage therapy has emerged as a promising treatment modality for SCI patients. In this article, we will explore the benefits of massage therapy for SCI patients, including the effects on muscle spasticity, pain, and quality of life.

Muscle Spasticity

SCI often results in muscle spasticity, which can cause discomfort, pain, and reduced mobility. Muscle spasticity can also lead to secondary complications such as joint contractures, pressure sores, and decreased bone density. Massage therapy has been shown to be a useful adjunct therapy in the management of muscle spasticity in SCI patients.

Massage therapy can be classified into several types, including Swedish massage, deep tissue massage, myofascial release, and trigger point therapy. Each type of massage therapy has its unique techniques and benefits, and the choice of therapy depends on the specific needs of the individual.

A study published in the Journal of Spinal Cord Medicine examined the effects of Swedish massage therapy on muscle spasticity in SCI patients. The study involved 11 participants who received five weeks of Swedish massage therapy, twice a week. The results showed a significant reduction in muscle spasticity, as measured by the Modified Ashworth Scale (MAS). The MAS measures the degree of muscle spasticity on a scale from 0 to 4, with higher scores indicating more severe spasticity. The participants in the study showed an average reduction of 1.18 points on the MAS, indicating a clinically significant improvement in muscle spasticity.

Another study published in the Journal of Rehabilitation Medicine evaluated the effects of deep tissue massage on muscle spasticity in SCI patients. The study involved 20 participants who received eight weeks of deep tissue massage therapy, twice a week. The results showed a significant reduction in muscle spasticity, as measured by the MAS. The participants in the study

showed an average reduction of 0.8 points on the MAS, indicating a clinically significant improvement in muscle spasticity.

Myofascial release and trigger point therapy are other types of massage therapy that have been shown to be effective in reducing muscle spasticity in SCI patients. Myofascial release involves applying sustained pressure to release tension in the fascia, which is a connective tissue that surrounds muscles and other tissues. Trigger point therapy involves applying pressure to specific points in the muscles to release tension and reduce pain.

Massage therapy can also have additional benefits for SCI patients, including improved circulation, increased range of motion, and reduced stress and anxiety. Improved circulation can help to reduce the risk of secondary complications such as pressure sores and deep vein thrombosis. Increased range of motion can improve mobility and reduce the risk of joint contractures. Reduced stress and anxiety can improve overall well-being and quality of life.

Pain

Pain is another common complication of SCI. It can be acute or chronic and may be related to muscle spasticity, neuropathic pain, or other factors. Massage therapy has been shown to be an effective treatment modality for pain in SCI patients. For example, a randomized controlled trial by Preyde (2000) found that massage therapy was effective in reducing pain in patients with subacute low back pain. Similarly, a systematic review and meta-analysis by Xu et al. (2020) found that massage therapy was associated with a significant reduction in pain and improved quality of life in SCI patients.

Additional studies demonstrated that massage therapy can provide several benefits for pain management in SCI.

1. Decreases muscle tension: Massage therapy can reduce muscle tension, spasticity, and contractures, which can lead to pain reduction (Nourbakhsh).
2. Increases circulation: Massage therapy can improve circulation, allowing more oxygen and nutrients to reach the affected areas of the body. This can help reduce pain and inflammation (Katayama).
3. Releases endorphins: Massage therapy can stimulate the release of endorphins, the body's natural painkillers. Endorphins can help reduce pain and improve mood (Bostock).
4. Improves range of motion: Massage therapy can increase flexibility and range of motion, reducing pain and improving function (Coronado).
5. Promotes relaxation: Massage therapy can promote relaxation and reduce stress, which can help manage pain and improve sleep quality (Silva).

These findings suggest that massage therapy may be a useful adjunctive therapy for pain management in SCI patients.

Quality of Life

SCI can have a significant impact on the quality of life of affected individuals. Depression, anxiety, and social isolation are common in SCI patients. Massage therapy has been shown to be an effective treatment modality for improving the quality of life of SCI patients. For example, a systematic review and meta-analysis by Lee et al. (2018) found that massage therapy was associated with improved quality of life, including decreased depression and anxiety, in SCI patients. Similarly, a systematic review by George and Boitor (2019) reported that massage therapy was associated with improved quality of life, including increased social participation, in SCI patients. These findings suggest that massage therapy may be a valuable treatment modality for improving the quality of life of SCI patients.

Additionally, a study published in the Journal of Spinal Cord Medicine in 2015 found that massage therapy improved the range of motion and muscle strength in individuals with spinal cord injury. The study consisted of 10 participants who received massage therapy twice a week for 4 weeks. At the end of the study, the participants showed significant improvements in their range of motion and muscle strength, suggesting that massage therapy may help improve the physical functioning of individuals with spinal cord injury.

Another study published in the Journal of Rehabilitation Medicine in 2014 found that massage therapy may also have psychological benefits for individuals with spinal cord injury. The study consisted of 30 participants who received either massage therapy or a control condition for 10 sessions over 5 weeks. At the end of the study, the participants who received massage therapy reported significant improvements in their overall well-being, mood, and quality of life.

In addition to improving physical and psychological well-being, massage therapy may also help reduce pain in individuals with spinal cord injury. A study published in the Journal of Pain and Symptom Management in 2010 found that massage therapy was effective in reducing pain and improving overall quality of life in individuals with spinal cord injury. The study consisted of 16 participants who received either massage therapy or a control condition for 8 weeks. At the end of the study, the participants who received massage therapy reported a significant reduction in pain and an improvement in their overall quality of life.

Overall, the evidence suggests that massage therapy may provide significant benefits for individuals with spinal cord injury. From improving physical functioning to reducing pain and improving psychological well-being, massage therapy may play an important role in the overall health and wellness of individuals with spinal cord injury. As such, it is important for healthcare providers to consider massage therapy as a potential treatment option for individuals with spinal cord injury.

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