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extracorporeal shockwave therapy, and kinesio taping, have been suggested to reduce the symptoms of shoulder pain syndrome. However, unless a thorough review of success has already been done, the diversity of different treatments does not always make the selection easier for doctors. Due to its clinical efficacy, cost-effectiveness, and other related health advantages, exercise therapy has been suggested in a recent summary of systematic reviews as the first-line treatment to reduce shoulder pain and functional impairment.

Currently, there is an increasing trend toward using invasive methods, such as dry needling treatment, either by itself or in conjunction with exercise therapy, to treat symptoms associated with subacromial pain syndrome. A tiny needle is pushed throughout the skin during the minimally invasive procedure known as dry needling.

This approach aims to alleviate pain and functional impairment by stimulating MTrPs, connective tissue, and muscles. It is yet unclear how all of these activities are produced via their various processes. Dry needling, however, has been found in multiple meta-analyses to be effective in lowering pain and may inactivate or eradicate MTrPs in the cases of shoulder pain, neck pain, spinal pain, and several musculoskeletal illnesses [8]. Numerous elements, including patient expectations, prior patient experiences, the placebo effect, declining nociceptive afferences, and biochemical changes, have been suggested as potential neurophysiological underpinnings of this syndrome.

The efficacy of dry needling combined with physiotherapy for the rehabilitation of patients with subacromial pain syndrome was assessed in a systematic review by Blanco-Daz [9]. However, a meta-analysis was not conducted for this publication. This publication adds a thorough review of the efficacy of dry needling alone or in combination with exercise treatment for decreasing pain and functional handicap in patients with subacromial pain syndrome, thereby providing an evidence-based strategy. The impact of dry needling on MTrPs in non-specific shoulder pain was reported in many investigations, including the meta-analysis carried out, which resulted in a temporary reduction in pain. Sánchez-Infante et al [8] further meta-analysis revealed that dry needling reduced the discomfort of many conditions. The purpose of this systematic review and meta-analysis was to examine the effects of dry needling treatment on pain and impairment in persons with subacromial pain syndrome, whether used alone or in conjunction with exercise therapy. We believe that both dry needling alone and in conjunction with therapeutic exercise may help to lessen subacromial syndrome-related pain and impairment.

Discussion

The best course of treatment might be challenging to determine since chronic shoulder pain is a long-term illness with no clear clinical description and high recurrence and duration of symptoms. Additionally, it has been demonstrated that there is a correlation between the existence of pain and the high prevalence

of myofascial trigger points in the shoulder muscles, therefore these patients may benefit from a strategy that focuses on treating the muscles. Additionally, prior research has demonstrated the effectiveness of combining manual treatment methods with therapeutic exercise to treat shoulder discomfort, however the ideal frequency and dosage are yet unknown. Patients with Myofascial Pain Syndrome of the Upper Quadrant are advised to undergo dry needling, and cases of post-surgical shoulder pain have shown promise with a single session of dry needling in a multimodal programme.

Conclusion

Dry needling alone or in conjunction with exercise therapy may produce a small decrease in pain in the short- and mid-term. Evidence for the short- or medium-term effects of dry needling alone or in conjunction with exercise treatment is insufficient.

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Not applicable.

Conflict of Interest

Author declares no conflict of interest.