E-Poster

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Ultrasound-Guided Injection of Platelet-Rich Plasma Alleviated Pain and Improved Function for Patients With Myofascial Pain Syndrome: A Retrospective Clinical Study

Topic: Pain

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BACKGROUND

Myofascial pain syndrome (MPS) is a regional musculoskeletal pain associated with myofascial trigger point (MTrP). The effect of current treatment strategies is still controversial.

This study aimed to retrospectively evaluate the safety and efficacy of ultrasound-guided platelet-rich plasma (PRP) treatment for MPS.

METHODS

From January 2023 to April 2023, we selected 71 eligible patients with MPS who received PRP treatment of the trapezius, rhomboid, erector spinae, and quadratus lumborum in the Department of Rehabilitation Medicine, West China Hospital, Sichuan University. The effect of PRP treatment for the patients with neck pain or lower back pain was respectively assessed using Visual Analog Scale (VAS), McGill Pain Questionnaire (McGill), Neck Disability Index (NDI), Roland Morris Disability Questionnaire (RMDQ), Oswestry Disability Index (ODI) and Medical Outcomes Short Form 36 (SF-36) prior to treatment and 24 hours, two weeks, one month and three months post-treatment. The statistical analysis was conducted using the related-Samples Friedman's Analysis of Variance.

RESULTS

All of the 71 patients with MPS completed the follow-up. The myofascial trigger point-induced pain was found to be significantly reduced after PRP treatments, as shown by VAS, McGill, and RMDQ (χ^2 = 202.38, 205.11 and 133.40, $p < 0.001$, respectively). The ODI score showed a significantly decrease compared to baseline after two weeks (χ^2 = 85.79, $p < 0.001$). After one-month follow-up, the NDI score showed a significantly decrease compared to baseline (χ^2 = 69.63, $p < 0.001$). Similarly, the SF-36 score was obviously improved three months post-treatment of PRP, in particular for the physical functioning (PF), role-physical (RP), bodily pain (BP), general health (GH), vitality (VT), social functioning (SF), role-emotional (RE) and mental health (MH) ($p < 0.01$). No adverse reactions were reported during follow-up.

CONCLUSION

Ultrasound-guided PRP treatment can relieve pain, improve function and life quality in MPS patients. This study shows PRP may be an effective and safe MPS treatment, promoting future tech transformation.

Statement of Disclosures

None

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