Platelet-rich plasma injection in the treatment of frozen shoulder: A randomized controlled trial with 6-month follow-up.

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Abstract

PURPOSE: Platelet-rich plasma (PRP) has been utilized in the treatment of chronic injuries. The current study aimed to evaluate the efficiency of PRP in the treatment of frozen shoulder compared to procaine.

MATERIALS AND METHODS: 60 patients with frozen shoulder were randomly divided into two groups. The PRP group was injected with 2 mL prepared PRP, while in the control group procaine was used. The stretching and formal strengthening exercises were carried out in both groups during the 6-month follow-up. Visual analog scale (VAS) score was used to assess the subjective pain intensity of the patients. The general shoulder assessment instruments (University of California at Los Angeles (UCLA) shoulder scale) was applied to measure the shoulder function of the patients. The evaluation was performed before treatment and 1 week, 1 month, 3 months, and 6 months after the first injection.

RESULTS: The efficiency of PRP was superior to and longer than procaine. VAS scores were both declined in PRP and control group after 1 week, 1 month, and 3 months of first injection. By contrast, it was elevated was elevated in the control group while continued to decline in PRP group. The UCLA scores were almost linearly improved in the PRP group, while the UCLA scores decreased to a lower level at the final follow-up visit compared to that post 3 months in the control group.

CONCLUSION: PRP and procaine were effective in treating frozen shoulder. PRP was more effective and had a more prolonged efficiency than the procaine control. Nevertheless, the definite conclusion should come from further large-scale clinical trials.