

## **Which Injection is Better for Treatment of Lateral Epicondylitis? Platelet Rich Plasma or Atelocollagen?: A Prospective Randomized Controlled Study**

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### **INTRODUCTION:**

The purpose of this study is to compare the clinical outcomes of platelet rich plasma (PRP) and atelocollagen injection in the patients with lateral epicondylitis through a prospective randomized controlled study.

### **METHODS:**

A total of 63 patients who were confirmed to have tear of common extensor tendon of elbow by Magnetic Resonance Imaging (MRI) were randomly assigned to receive PRP injection (Group A, 32 patients) or atelocollagen injection (Group B, 31 patients). The visual analog scale (VAS) score for pain, Quick Disabilities of the Arm, Shoulder, and Hand questionnaire (DASH) score, Patient-Rated Tennis Elbow Evaluation (PRTEE) score, and Nirschl score of groups A and B were compared during the recovery phases for over 1 post-injection year. MRI was performed at post-injection 6 months.

**RESULTS:** The mean follow-up period was 13.1 months. The functional and pain scores in both groups were significantly improved at the last follow-up ( $P < 0.001$ ). Post-injection 6 months DASH score of group A was significantly lower than that of group B. (group A;  $8.5 \pm 7.3$ , group B;  $12.9 \pm 8.3$ ,  $P = 0.027$ ). Post-injection 9 months DASH score, Nirschl score, and PRTEE score were significantly lower in group A compared to group B ( $P < 0.05$ ). At post-injection 12 months and last follow-up period, VAS pain score and all of the clinical scores were significantly better in group A compared to group B ( $P < 0.05$ ). The proportion of patients with a decrease in size of the torn tendon of follow-up MRI at post-injection 6 months was higher in group A (56.3%) compared to group B (35.5%), but it was not statistically significant ( $P = 0.098$ ).

### **DISCUSSION AND CONCLUSION:**

Both PRP and atelocollagen injections can improve the clinical outcome and integrity of the tendon of the patients with common extensor partial tear of elbow. But, after post-injection 6 months, PRP injection showed better clinical outcome compared to atelocollagen injection.