



Sports Medicine

Platelet-rich plasma significantly improved tennis elbow symptoms

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Leukocyte-enriched platelet-rich plasma effectively and safely treated patients with lateral epicondylar tendinopathy in a recent study.

In a randomized control trial, **Allan K. Mishra, MD**, of the orthopedic surgery department, Menlo Medical Clinical, Stanford University Medical Center, and colleagues studied 230 patients with chronic lateral epicondylar tendinopathy ([tennis elbow](#)) who were treated over 5 years at 12 centers. The patients, symptomatic for at least 3 months and unresponsive to conventional therapy, were divided into two groups: [platelet-rich plasma](#) recipients (PRP; n=116) or active controls (n=114). Venous whole blood at initiation was used to prepare the PRP that contained concentrated platelets and leukocytes.

Patients and investigators were masked throughout the study; patients had their extensor tendons needled with or without PRP after receiving local anesthetic. Patients were followed for up to 24 weeks.

PRP-treated patients reported a 55.1% improvement in pain scores compared with 47.4% of active controls at 12 weeks (n=192 patients; $P=.094$). At 24 weeks, PRP patients reported 71.5% improvement in pain scores compared with 56.1% of controls (n=119 patients; $P=.027$). There were 37.4% of PRP-treated patients vs. 48.4% of the control group reporting significant elbow tenderness at 12 weeks ($P=.036$). At 24 weeks, elbow tenderness decreased to 29.1% of PRP-treated patients, while discomfort increased to 54% among controls ($P<.001$).

PRP patients had 83.9% success rates at 24 weeks of follow-up compared with 68.3% for controls ($P=.012$). Neither group reported significant complications.

"Treatment of chronic tennis elbow with leukocyte-enriched PRP is safe and results in clinically meaningful improvements compared with an active control group," the researchers concluded.

Disclosure: See the study for a full list of relevant disclosures.



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