



“Together,
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KSES 2026

The 33rd Annual
International Congress of the
Korean Shoulder and
Elbow Society

March
27(Fri) ~ 28(Sat), 2026
BEXCO, Busan, Korea

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- Category : Shoulder
- Detail Category : Rotator cuff

Platelet-Rich Plasma Provides Modest but Durable Functional Benefit over Corticosteroid for Rotator Cuff Tendinopathy: A Systematic Review and Meta-Analysis of Randomized Controlled Trials.

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Introduction and Background

Rotator cuff tendinopathy and partial-thickness tears commonly cause shoulder pain and functional limitation, particularly in older adults. Corticosteroid (CS) injections provide rapid but short-lived relief, whereas platelet-rich plasma (PRP) is proposed to enhance tendon healing. Although both treatments are widely used, their comparative effectiveness in nonsurgical rotator cuff pathology remains unclear. This study systematically evaluated randomized controlled trials comparing PRP and CS injections, with pain as the primary outcome and functional recovery and adverse events as secondary outcomes.

Material and Method

A systematic review was conducted. Eligible studies were randomized controlled trials (RCTs) of adults (≥ 18 years) with rotator cuff tendinopathy or partial tears comparing PRP with CS injections. Primary outcomes were pain, patient-reported outcome scores, and adverse events. Random-effects meta-analyses were performed using mean difference (MD) or risk ratio (RR) with 95% confidence intervals (CI).

Results

Ten RCTs ($n=591$) were included. At 3-6-weeks and 3-month follow-up, pain and patient-reported outcomes did not differ significantly between groups. At 6 months, PRP demonstrated clearer benefits. PRP improved American Shoulder and Elbow Surgeons score (ASES) (MD +10.8, 95% CI: 4.71–16.80, $p = 0.0005$) and Constant-Murley score (CMS) (MD +10.7, 95% CI: 1.21–20.27, $p = 0.027$). Pain reduction at 6 months favored PRP (Pain visual analog scale [VAS] MD -0.8 , 95% CI: -1.45 to -0.18 , $p = 0.012$). PRP was associated with fewer adverse events (RR 0.66, 95% CI: 0.44–0.99, $p = 0.047$).

Conclusions

PRP injections offer statistically significant, although clinically modest, improvements in pain and shoulder function compared with CS injections and are associated with fewer adverse events at 6 months. Taken together, these findings suggest that PRP may serve as a more durable treatment option for patients with rotator cuff tendinopathy.



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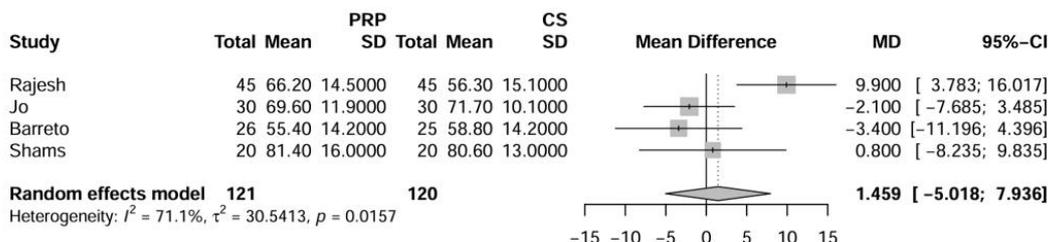
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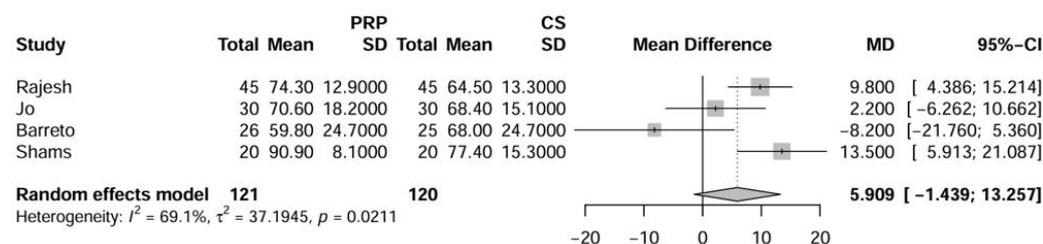
Figure & Table 1.

CMS

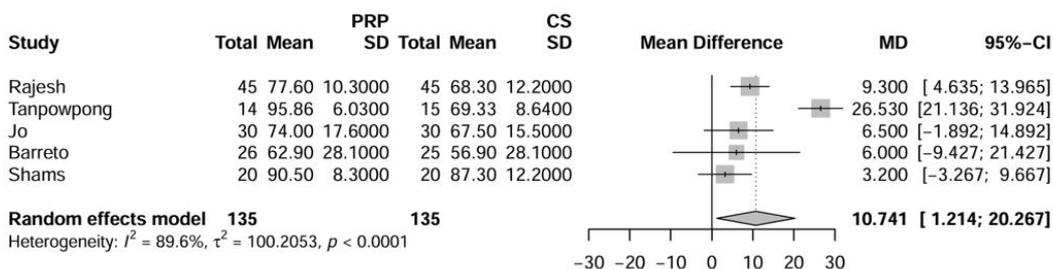
(A)



(B)



(C)



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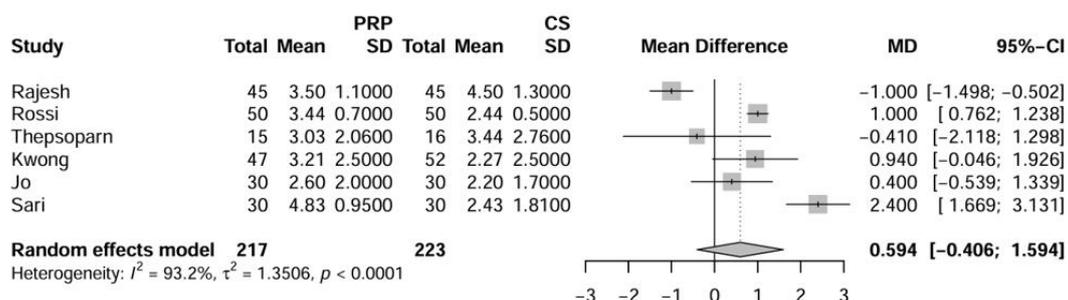
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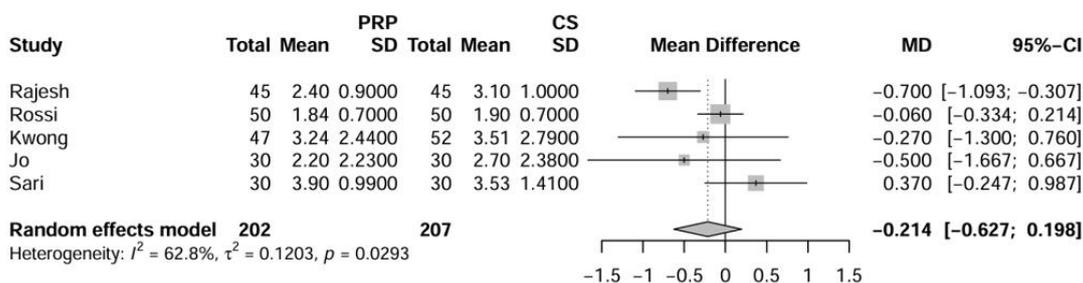
Figure & Table 2.

VAS

(A)



(B)



(C)

