

CLINICAL OUTCOMES OF PLATELET-RICH PLASMA IN SACROILIAC JOINT DYSFUNCTION: A CASE SERIES

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Background

Sacroiliac joint (SIJ) dysfunction is a recognized source of low back pain. Recent reviews show longer-lasting relief with Platelet-Rich Plasma (PRP) than corticosteroids, but evidence is limited by protocol and patient variability.

Case report

We describe four cases of SIJ dysfunction treated with leukocyte-rich PRP without external activation, with platelet concentrations ranging from 4.41 to 5.67 times that of peripheral blood. Three patients (female, 46; female, 20; male, 75) underwent unilateral, bilateral, and unilateral SIJ injections, respectively, using a standardized protocol: 2.5 mL of intra-articular PRP confirmed by fluoroscopic contrast, and 4 mL PRP at the posterior sacroiliac ligaments under ultrasound guidance. In case 1, pain decreased from 6/10 to 2/10 after 2 months, with only mild discomfort when seated on hard surfaces. In case 2, right-sided pain dropped from 7/10 to 3/10 with sustained improvement for 4 months; the left side responded poorly. In case 3, pain reduced from 6/10 to 4/10 for 3 months, with limited overall benefit—possibly due to a multifactorial pain etiology in a older patient with other spinal degenerative changes. In case 4 (female, 19), only peri-ligamentous PRP was administered under ultrasound, as intra-articular contrast placement under fluoroscopic guidance was not achievable. Pain decreased from 7/10 to 3/10 after 1 month, with sustained functional improvement.

Conclusion

Discussion: These cases highlight the variable clinical response to PRP in SIJ dysfunction, reflecting literature findings. While randomized controlled trials (RCTs) typically use single injections, case series often apply 2–3 sessions in refractory cases. Outcomes appear influenced by anatomical, technical, and individual factors, including comorbidities. Conclusion: PRP appears to be a safe and potentially effective therapy for long-term relief. Large RCTs with ≥ 12 -month follow-up are needed to establish consensus on platelet concentration, leukocyte content, activation methods, injection volumes and frequency. Detailed protocol standardization is essential to ensure reproducible and comparable outcomes.

Keywords: Sacroiliac Joint Dysfunction; Platelet-Rich Plasma;