

New Meta-analysis Finds No Superiority of BMAC Over PRP for Knee Osteoarthritis

Daradia Research Team Publishes One of the Most Comprehensive Evidence Reviews to Date

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EINPresswire.com/ -- Daradia: The Pain Clinic, a globally recognized center for evidence-based pain management and regenerative therapy training, has released a new systematic review and meta-analysis comparing Bone Marrow Aspirate Concentrate ([BMAC](#)) and Platelet-Rich Plasma ([PRP](#)) for knee osteoarthritis (KOA). The findings challenge widely held assumptions in regenerative medicine and provide much-needed clarity for clinicians and patients seeking non-surgical solutions for degenerative knee disease.

The study synthesized data from two randomized controlled trials and one comparative retrospective study, encompassing 274 patients, to assess which therapy—BMAC or PRP—offers superior improvement in pain, function, and overall outcomes.

Key Finding: No Strong Evidence That BMAC Is Superior

Across all primary outcome measures, including visual analog pain scores, WOMAC, KOOS, and IKDC functional scores, BMAC did not demonstrate consistent superiority over PRP. While BMAC showed small advantages in a few isolated functional metrics, the differences were not robust, consistent, or clinically decisive.



OA Knee



Daradia The Pain Clinic

“Both PRP and BMAC are valuable regenerative tools, but current evidence shows they produce very similar outcomes for knee osteoarthritis,” said Dr. Gautam Das, founder of Daradia and a leading voice in interventional pain medicine. “This is a meaningful finding for patients who may assume that a more complex cellular therapy like BMAC must perform better. The evidence simply does not support that assumption—at least not yet.”

Comparable Pain Relief and Safety

The meta-analysis found no significant difference in pain reduction between the two treatments across follow-up periods ranging from 1 to 12 months. Both PRP and BMAC were also proven to be safe and well-tolerated, with no reports of serious adverse events.

The safety profile is especially important given that BMAC involves a more invasive procedure requiring bone marrow aspiration, whereas PRP relies on a simple blood draw.

Clinical Implications for Patients and Physicians

The findings suggest that PRP—being less invasive, more cost-effective, and easier to administer—remains a highly practical first-line regenerative intervention for many patients. BMAC may still be considered for select cases, especially where PRP has been tried without desired results, but the evidence does not justify BMAC as a superior option at this time.

“This meta-analysis provides clarity in an area where marketing claims often overshadow data,” said Dr. Das. “Our goal is always to help the medical community make decisions grounded in rigorous science, not assumptions.”

Future Research May Shift the Landscape

The Daradia research team emphasizes that these conclusions are based on the best available evidence today, but the recommendation may evolve as more high-quality randomized trials emerge. Current limitations include small sample sizes, heterogeneity in preparation methods, and a lack of long-term follow-up beyond one year.

“Regenerative medicine is evolving rapidly,” added Dr. Das. “As better-designed studies become available, we will continue to update our analyses and clinical practices accordingly. Science is a moving target, and we welcome new data.”

About the Study

The full clinical summary and interpretation of the meta-analysis is available on Daradia’s website:

<https://daradia.com/prp-vs-bmac-for-knee-osteoarthritis/>

The original article, published in the Indian Journal of Pain, adds to Daradia's expanding portfolio of peer-reviewed research in interventional pain medicine, regenerative therapies, and clinical guideline development.

About Daradia: The Pain Clinic

Founded in Kolkata, Daradia is internationally recognized for excellence in pain management, clinical training, research, and innovation. With thousands of trained fellows from across the world, Daradia is committed to elevating global standards in interventional pain practice, evidence-based protocols, and patient-centered care.

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