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Clinical And Functional Outcome Of Intra-Articular Hyaluronic Acid VS Prp In Osteoarthritis Of Knee

Introduction

Knee osteoarthritis (OA) is a progressive degenerative joint disease and one of the most common causes of pain and disability in adults. Conventional treatments such as analgesics, physiotherapy, exercise, and intra-articular injections provide only symptomatic relief, with many patients eventually requiring total knee replacement (TKR). Recent advances in regenerative medicine have focused on biological therapies that stimulate cartilage repair and improve joint function. Among these, platelet-rich plasma (PRP), a concentrated source of autologous growth factors, has shown promising outcomes. This study aimed to compare the clinical and functional results of intra-articular PRP with hyaluronic acid (HA) injections in patients with symptomatic knee OA.

Methods

Sixty patients with radiologically confirmed knee OA (Kellgren–Lawrence grades I–IV), aged >40 years, and with persistent knee pain >3 months despite analgesics were enrolled. Patients were prospectively allocated into two groups: 30 received intra-articular HA, and 30 received intra-articular PRP. Clinical assessment was performed at baseline, 6 weeks, 3 months, and 6 months using the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) and Visual Analogue Scale (VAS) scores.

Results

Both PRP and HA groups demonstrated significant clinical improvement at follow-up. However, patients treated with PRP showed superior outcomes in both WOMAC and VAS scores compared to HA, with improvements sustained over 6 months. No major adverse events were reported in either group.

Conclusion

PRP injection appears to be a safe and effective therapeutic option for symptomatic knee OA, with superior short- to mid-term outcomes compared to HA. If validated in larger studies with long-term follow-up, PRP therapy has the potential to reduce the demand for early TKR, ease the financial burden on the NHS, and help shorten theatre waiting lists by offering a cost-effective, minimally invasive alternative for selected patients.

Biography

Thivagar Murugesan is an emerging professional dedicated to advancing his expertise and contributing meaningfully within his field. Known for his commitment to continuous learning, he actively engages in academic, clinical, and professional development activities. Thivagar demonstrates a strong interest in research, evidence-based practice, and innovative approaches that support improved outcomes and strengthen multidisciplinary collaboration.

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