

## Single-dose intra-articular corticosteroid injection prior to platelet-rich plasma injection resulted in better clinical outcomes in patients with knee osteoarthritis: A pilot study.

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### Author information

### Abstract

**BACKGROUND:** The synergistic and protective effect of platelet-rich plasma (**PRP**) added to methylprednisolone (MP) has been demonstrated via in-vitro studies. However, there is no report in the literature about this issue.

**OBJECTIVE:** The aim of this study was to evaluate clinical outcomes of intra-articular (IA) MP injection prior to **PRP** injection in comparison with single-dose MP and **PRP** injections alone in patients with knee osteoarthritis (OA).

**METHODS:** The treatment groups were "**PRP** group" (n= 37) who underwent single-dose IA **PRP** injection, "**PRP** + MP group" (n= 40) who underwent MP injection one week prior to single-dose **PRP** injection, and "MP group" (n= 38) who underwent single-dose MP injection. Visual Analog Scale (VAS) and The Western Ontario and McMaster Universities **Arthritis** Index (WOMAC) scores were applied at first admission and at 1st, 3rd, 6th, and 12th month follow-ups.

**RESULTS:** At the end of the 1st month, WOMAC score in **PRP** + MP group was significantly lower than **PRP** group. At the 3rd month, WOMAC score in **PRP** + MP group was significantly lower than **PRP** and MP groups. At the 6th month, VAS and WOMAC score in **PRP** + MP group was significantly lower than MP group. At the end of the 12th month, no significant difference was observed among three groups in VAS and WOMAC scores.

**CONCLUSION:** According to our results, IA MP injection prior to **PRP** injection resulted in significantly better clinical outcomes compared to **PRP** and MP injections alone in patients who had mild to moderate knee OA.

**KEYWORDS:** Platelet-rich plasma; corticosteroid; intra-articular injection; knee osteoarthritis

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