

## عنوان مقاله:

Effectiveness of Platelet-Rich Plasma Based on Gene Expression in Knee Osteoarthritis

## محل انتشار:

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## خلاصه مقاله:

**Background:** Intra-articular injection of Platelet-rich plasma (PRP) is an effective method for the treatment of patients with knee osteoarthritis (OA). This study aimed to assess the effects of PRP injection on OA, based on gene expression analysis. **Methods:** A sample of 30 subjects with knee OA was asked to complete the Persian versions of the Intermittent and Constant Osteoarthritis Pain (ICOAP) and Knee and Osteoarthritis Outcome Score (KOOS). Thereafter, the expression of IGF-1, HIF-1, cartilage oligomeric matrix protein (COMP), and bone morphogenetic proteins (BMP2) were compared in the patient before and 1 month after PRP injection using real-time polymerase chain reaction (PCR). **Results:** According to the results of the study, the expression of IGF-1, HIF-1, COMP and BMP2 were reported to be higher in subjects with PRP injection; however, only the up-regulation of IGF-1 was statistically significant ( $P < 0.007$ ). Moreover, the significant change in the KOOS and ICOAP scores was attributed to PRP injection ( $P < 0.01$ ). **Conclusion:** Intra-articular injections of PRP were reported to ease the pain, decrease the stiffness, and improve quality of life in patients with knee OA through the promotion of IGF-1 expression. **Level of evidence:** V

## کلمات کلیدی:

IGF-1, Osteoarthritis, Platelet-rich plasma

## لینک ثابت مقاله در پایگاه سیویلیکا:

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