

CONSENSUS STATEMENT ON INTRA-ARTICULAR INJECTIONS OF PLATELET RICH PLASMA FOR THE MANAGEMENT OF KNEE OSTEOARTHRITIS

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Introduction:

The use of intra-articular injections of Platelet Rich Plasma (PRP) for knee osteoarthritis has dramatically increased over the last years. Several randomized controlled trials and meta-analysis have been conducted, showing a superiority of PRP injection as compared to placebo and at least a similar efficiency as compared to hyaluronic acid and corticosteroid injections. However, the heterogeneity of protocols limits the extrapolation of these results.

Aim of the Study:

The aim of our task force group including physicians with a large experience in PRP use was to provide the first clinical practice recommendations based on systematic review of the literature and Delphi process.

Material and Methods:

Fifteen physicians (10 rheumatologists, 4 specialists in rehabilitation and sport medicine and 1 interventional radiologist) from different countries were selected given to their expertise in the fields of PRP and osteoarthritis, forming the GRIP (Groupe de Recherche sur les Injections de PRP, PRP Injection Research Group). Twenty-five recommendations were finally retained after several meetings using the modified Delphi method to establish clinical consensus. All experts voted their agreement or not for each recommendation using a score between 1 (totally inappropriate) and 9 (totally appropriate). Depending on the median value and extreme scores, recommendations were judged as appropriated or unappropriated with a strong or relative agreement but could also be judged as uncertain due to indecision or absence of consensus.

Results

The main recommendations are listed below:

- Intra-articular injections of PRP constitute an efficient treatment of early or moderate symptomatic knee osteoarthritis. Median = 8 [6-9] – Appropriate. Relative agreement.
- Intra-articular injections of PRP may be useful in severe knee osteoarthritis (Kellgren-Lawrence grade IV). Median = 7 [6-7] – Appropriate. Relative agreement.
- Intra-articular injections of PRP in knee osteoarthritis should be proposed as second-line therapy, after failure of non-pharmacological and pharmacological (oral and topic) symptomatic treatment. Median = 9 [5-9] – Appropriate. Relative agreement.
- Intra-articular injections of PRP should not be performed in osteoarthritis flare-up with significant effusion. Median = 7 [5-9] – Appropriate. Relative agreement.
- Intra-articular PRP treatment may include 1 to 3 consecutive injections. Median = 9 [7-9] – Appropriate. Strong agreement.
- Leukocyte-poor PRP should be preferred for knee OA treatment. Median = 8 [5-9] – Appropriate. Relative agreement.
- PRP injections should be performed under ultrasound or fluoroscopic guidance. Median = 8 [3-9] – Uncertain. No consensus.
- PRP should not be mixed with injectable anesthetic or corticosteroid. Median = 9 [6-9] – Appropriate. Relative agreement.

Conclusions:

Twenty-five recommendations were discussed by an international multidisciplinary task force group in order to provide a basis for standardization of clinical practices and future research protocols.