

| Author | Treatment group | Injections N° | Dosage | N° pts | Women | Men | Age | BMI | K-L grade |
|------------------------------|-----------------------------|---------------|--------------------------|--------|-------|-----|-------------|------------|-----------|
| Arora 2023 [1] | CS (Methylprednisolone) | 1 | 80 mg | 41 | 25 | 16 | 54.5 ± 8.2 | 27.1 ± 2.0 | 2-3 |
| | PRP | 1 | 3 ml | 46 | 33 | 13 | 54.1 ± 9.6 | 27.2 ± 3.7 | 2-3 |
| Tschopp 2023 [2] | CS (Triamcinolone) | 1 | 1 ml | 30 | 16 | 14 | 59.0 | 27.0 | 1-2-3 |
| | PRP | 1 | 3 ml | 30 | 13 | 17 | 62.0 | 26.0 | 1-2-3 |
| | HA (Sodium hyaluronate) | 1 | 6 ml | 30 | 11 | 19 | 64.0 | 25.5 | 1-2-3 |
| Aakash 2022 [3] | CS (Triamcinolone) | 1 | 40 mg/1ml | 15 | 8 | 7 | 54.7 ± 9.7 | NR | 2-3 |
| | PRP | 1 | 3 ml | 15 | 7 | 8 | 55.0 ± 9.9 | NR | 2-3 |
| Nunes-Tamashiro 2022 [4] | CS (Triamcinolone) | 1 | 40 mg/2 ml | 33 | 30 | 3 | 65.8 ± 6.1 | 29.6 ± 4.5 | 2-3 |
| | PRP | 1 | NR | 34 | 30 | 4 | 67.6 ± 7.4 | 29.2 ± 3.2 | 2-3 |
| Pretorius 2022 [5] | CS (Methylprednisolone) | 1 | 80 mg/2 ml | 29 | 17 | 12 | 63.8 ± 9.7 | 32.7 ± 4.9 | 2-3 |
| | PRP | 1 | 5 ml | 29 | 17 | 12 | 63.8 ± 9.7 | 32.7 ± 4.9 | 2-3 |
| Szwedowski 2022 [6] | CS (Betamethasone) | 1 | 6.43 mg/ml + 2.63 mg/ml | 24 | 19 | 6 | 57.3 ± 7.6 | 25.1 ± 3.3 | 2-3 |
| | PRP | 1 | 7-8 ml | 25 | 20 | 5 | 57.9 ± 9.7 | 27.5 ± 5.0 | 2-3 |
| | HA (Cross-linked Sodium HA) | 1 | 30 mg/ml | 24 | 20 | 5 | 52.6 ± 7.4 | 26.8 ± 3.8 | 2-3 |
| Elksnins-Finogejevs 2020 [7] | CS (Triamcinolone) | 1 | 40 mg | 19 | 5 | 15 | 70.2 ± 9.2 | 30.5 ± 5.8 | 2-3 |
| | PRP | 1 | 8 ml | 17 | 3 | 17 | 66.4 ± 8.4 | 28.6 ± 5.0 | 2-3 |
| Freire 2020 [8] | CS (Triamcinolone) | 1 | 50 mg/2.5 ml | 25 | NR | NR | 60.2 ± 5.9 | NR | 1-2-3-4 |
| | PRP | 1 | 5 ml | 25 | NR | NR | 64.2 ± 8.0 | NR | 1-2-3-4 |
| Aamir 2019 [9] | CS (Methylprednisolone) | 1 or 2 | 80 mg | 40 | NR | NR | 59.6 ± 7.6 | NR | 1-2-3 |
| | HA | 3 | NR | 40 | NR | NR | 59.4 ± 8.3 | NR | 1-2-3 |
| Huang 2019 [10] | CS (not specified) | 3 | 1 ml | 40 | 19 | 21 | 54.3 ± 1.4 | 24.6 ± 3.6 | 1-2 |
| | PRP | 3 | 4 ml | 40 | 15 | 25 | 54.5 ± 1.2 | 25.2 ± 4.2 | 1-2 |
| | HA (Sodium hyaluronate) | 3 | 2 ml | 40 | 21 | 19 | 54.8 ± 1.1 | 24.5 ± 3.1 | 1-2 |
| Maia 2019 [11] | CS (Dexamethasone) | 1 | 4 mg/ml | 12 | 11 | 1 | 60.3 ± 1.7 | 31.4 ± 1.8 | 1-2 |
| | HA (Sodium hyaluronate) | 1 | 90 mg/6 ml | 16 | 10 | 6 | 56.6 ± 1.0 | 31.9 ± 1.3 | 1-2 |
| Khan 2018 [12] | CS (Triamcinolone) | 1 | 40 mg | 51 | 39 | 12 | 52.1 ± 12.1 | 26.0 ± 5.0 | 2 |
| | PRP | 1 | 5 ml | 52 | 38 | 13 | 50.9 ± 13.1 | 28.0 ± 4.0 | 2 |
| Nabi 2018 [13] | CS (Triamcinolone) | 3 | 40 mg | 34 | 27 | 7 | 58.6 ± 8.8 | 27.8 ± 3.3 | 2-3 |
| | PRP | 3 | 5 ml | 33 | 28 | 5 | 59.1 ± 7.8 | 28.4 ± 2.8 | 2-3 |
| Phul 2018 [14] | CS (Triamcinolone) | 1 | 40 mg/2 ml | 40 | 26 | 14 | 57.7 ± 10.4 | NR | 2-3-4 |
| | PRP | 1 | 4-6 ml | 40 | 28 | 12 | 54.5 ± 4.5 | NR | 2-3-4 |
| Uslu Guvendi 2018 [15] | CS (Betamethasone) | 1 | (6.43 mg + 2.63 mg)/1 ml | 17 | 15 | 2 | 62.8 ± 1.7 | 31.1 ± 1.0 | 3 |
| | PRP | 1 | NR | 19 | 18 | 1 | 62.3 ± 1.6 | 31.4 ± 0.7 | 3 |
| | PRP | 3 | NR | 14 | 13 | 1 | 60.4 ± 1.7 | 31.0 ± 1.0 | 3 |
| Campos 2017 [16] | CS (Triamcinolone) | 1 | 20 mg | 51 | NR | NR | NR | NR | 4 |
| | HA (Hylan G-F 20) | 1 | 6 ml | 46 | NR | NR | NR | NR | 4 |
| Joshi Jubert 2017 [17] | CS (Betamethasone) | 1 | 6 mg/2 ml | 30 | 24 | 6 | 68.0 ± 7.2 | 31.0 ± 4.2 | 3-4 |
| | PRP | 1 | 4 ml | 35 | 23 | 12 | 65.6 ± 8.6 | 31.2 ± 4.4 | 3-4 |
| Siddharth 2017 [18] | CS (Methylprednisolone) | 1 | 80 mg | 65 | 37 | 38 | 69.5 ± 1.7 | 27.3 ± 1.4 | NR |

| | | | | | | | | | |
|----------------------------|-------------------------|---------------|--------------------|-----|-----|-----|-------------|------------|---------|
| | HA | 1 | NR | 70 | 45 | 30 | 71.4 ± 1.4 | 29.3 ± 1.2 | NR |
| Vaishya 2017 [19] | CS (Triamcinolone) | 1 | 40 mg | 40 | 25 | 15 | NR | NR | 2-3 |
| | HA (Hylan G-F 20) | 1 | 48 mg/ ml | 42 | 29 | 13 | NR | NR | 2-3 |
| Askari 2016 [20] | CS (not specified) | 1 | 40 mg | 69 | 57 | 12 | 57.0 ± 9.1 | NR | 2-3 |
| | HA (Sodium salt of HA) | 1 | 2 ml | 71 | 62 | 9 | 58.5 ± 8.3 | NR | 2-3 |
| Bisicchia 2016 [21] | CS (Methylprednisolone) | 2 | 40 mg | 75 | 50 | 25 | 68.6 ± 9.9 | NR | 2-3 |
| | HA (HYADD 4) | 2 | NR | 75 | 53 | 22 | 71.5 ± 10.6 | NR | 2-3 |
| Forogh 2016 [22] | CS (Methylprednisolone) | 1 | 40 mg | 23 | 15 | 9 | 61.1 ± 6.7 | 29.2 ± 3.4 | 2-3 |
| | PRP | 1 | 5 ml | 16 | 17 | 7 | 59.1 ± 7.0 | 28.9 ± 2.8 | 2-3 |
| Tammachote 2016 [23] | CS (Triamcinolone) | 1 | 40 mg | 49 | 36 | 13 | 61.0 | 25.8 | 1-2-3-4 |
| | HA (Hylan G-F 20) | 1 | 6 ml | 50 | 43 | 7 | 62.6 | 26.3 | 1-2-3-4 |
| Trueba Davalillo 2015 [24] | CS (Betamethasone) | 2 | (5 mg + 2 mg)/1 ml | 91 | 57 | 41 | 62.8 ± 0.6 | 26.3 ± 0.4 | 2-3 |
| | HA (Sodium Hyaluronate) | 5 | 2.5 ml | 89 | 59 | 38 | 62.7 ± 0.6 | 28.3 ± 0.5 | 2-3 |
| Habib 2014 [25] | CS (Methylprednisolone) | 1 | 80 mg | 17 | 8 | 12 | 53.3 ± 13.1 | 29.0 ± 2.9 | 1-2-3-4 |
| | HA (Sodium Hyaluronate) | 1 | 6 ml/60 mg | 16 | 5 | 15 | 50.9 ± 11.8 | 27.8 ± 4.2 | 1-2-3-4 |
| Housman 2014 [26] | CS (Methylprednisolone) | 1 | 40 mg | 112 | 91 | 41 | 60.1 ± 9.3 | 30.8 ± 6.5 | 1-2-3 |
| | HA (Hylastan SGL-80) | 1 | 4 ml | 106 | 79 | 51 | 60.6 ± 9.9 | 31.2 ± 6.4 | 1-2-3 |
| | HA (Hylastan SGL-80) | 2 | 4 ml | 108 | 91 | 38 | 62.0 ± 9.7 | 31.7 ± 6.6 | 1-2-3 |
| Leighton 2014 [27] | CS (Methylprednisolone) | 1 | 40 mg/ml | 215 | 102 | 113 | 61.5 ± 9.9 | 28.3 ± 4.1 | 2-3 |
| | HA (NASHA) | 1 | 60 mg/3 ml | 218 | 111 | 107 | 61.9 ± 9.6 | 28.2 ± 4.2 | 2-3 |
| Shimizu 2010 [28] | CS (Dexamethasone) | 1 + 1 if pain | 4 mg | 25 | 18 | 7 | 75.3 ± 4.9 | 24.4 ± 3.9 | 2-3 |
| | HA (Sodium Hyaluronate) | 5 | 25 mg | 26 | 20 | 6 | 75.9 ± 5.9 | 24.4 ± 3.8 | 2-3 |
| Skwara 2009 [29] | CS (Triamcinolone) | 5 | 10 mg | 15 | 12 | 9 | 61.3 ± 6.7 | 29.5 ± 3.8 | 2-3 |
| | HA (Sodium Hyaluronate) | 5 | 20 mg/2 ml | 20 | 13 | 8 | 60.8 ± 7.0 | 28.6 ± 4.0 | 2-3 |
| Caborn 2003 [30] | CS (Triamcinolone) | 1 | 40 mg/2 ml | 103 | 56 | 47 | 63.7 ± 11.6 | 31.1 ± 6.0 | NR |
| | HA (Hylan G-F 20) | 3 | 2 ml | 113 | 67 | 46 | 62.5 ± 12.1 | 30.8 ± 6.7 | NR |
| Leopold 2003 [31] | CS (Betamethasone) | 1 | 2 ml | 42 | 28 | 22 | 64.0 | 29.3 | NR |
| | HA (Hylan G-F 20) | 3 | 16 mg/2 ml | 38 | 26 | 24 | 66.0 | 28.8 | NR |
| Guidolin 2001 [32] | CS (Methylprednisolone) | 3 | 40 mg/1 ml | 13 | 6 | 7 | 57.0 ± 1.7 | NR | 1-2-3 |
| | HA (Sodium Hyaluronate) | 5 | 20 mg/2 ml | 11 | 7 | 4 | 51.5 ± 2.8 | NR | 1-2-3 |
| Ronchetti 2001 [33] | CS (Methylprednisolone) | 3 | 40 mg/1 ml | 21 | NR | NR | NR | NR | NR |
| | HA (Sodium Hyaluronate) | 5 | 20 mg/2 ml | 27 | NR | NR | NR | NR | NR |
| Jones 1995 [34] | CS (Triamcinolone) | 1 | 20 mg | 27 | 10 | 21 | 69.5 ± 1.7 | NR | NR |
| | HA (Sodium Hyaluronate) | 5 | 20 mg | 29 | 14 | 18 | 71.4 ± 1.4 | NR | NR |
| Leardini 1991 [35] | CS (Methylprednisolone) | 3 | 40 mg | 20 | 18 | 2 | 64.9 ± 7.9 | NR | NR |
| | HA (Sodium Hyaluronate) | 3 | 20 mg | 20 | 17 | 3 | 64.6 ± 10.1 | NR | NR |

Supplementary Table 1.

REFERENCES

1. **Arora V, Sharma M, Bishnoi S, Mahipal V, Sandhu AS, Khanna R, Aggarwal T, Yadav KS, Jain G, Sharma SM.** Clinical and Biochemical Correlation of Intra-articular Platelet-Rich Plasma and Corticosteroid Using Serum Matrix Metalloproteinase 3 (MMP-3) Levels in Osteoarthritis of Knee. *Cureus* 2023; 15:e39625.
2. **Tschopp M, Pfirrmann CWA, Fucentese SF, Brunner F, Catanzaro S, Kühne N, Zwysig I, Sutter R, Götschi T, Tanadini M, Roskopf AB.** A Randomized Trial of Intra-articular Injection Therapy for Knee Osteoarthritis. *Invest Radiol* 2023; 58:355-362.
3. **Aakash V, Kumaran NA, Vignesh A, Vignesh, Subash Y.** Comparison of functional outcome and pain relief between steroid injection and platelet rich plasma injection in early osteo arthritis knee. *IJPSR* 2022; 13:4985-4990.
4. **Nunes-Tamashiro JC, Natour J, Ramuth FM, Toffolo SR, Mendes JG, Rosenfeld A, Furtado RNV.** Intra-articular injection with platelet-rich plasma compared to triamcinolone hexacetonide or saline solution in knee osteoarthritis: A double blinded randomized controlled trial with one year follow-up. *Clin Rehabil* 2022; 36:900-915.
5. **Pretorius J, Nemat N, Alsayed A, Mustafa A, Hammad Y, Shaju T, Nadeem S.** Double-Blind Randomized Controlled Trial Comparing Platelet-Rich Plasma With Intra-Articular Corticosteroid Injections in Patients With Bilateral Knee Osteoarthritis. *Cureus* 2022; 14:e29744.
6. **Szwedowski D, Mobasheri A, Moniuszko A, Zabrzyński J, Jeka S.** Intra-Articular Injection of Platelet-Rich Plasma Is More Effective than Hyaluronic Acid or Steroid Injection in the Treatment of Mild to Moderate Knee Osteoarthritis: A Prospective, Randomized, Triple-Parallel Clinical Trial. *Biomedicines* 2022; 10:991.
7. **Elksniņš-Finoģejevs A, Vidal L, Peredistijs A.** Intra-articular platelet-rich plasma vs corticosteroids in the treatment of moderate knee osteoarthritis: a single-center prospective randomized controlled study with a 1-year follow up. *J Orthop Surg Res* 2020; 15:257.

8. **Freire MRM, da Silva PMC, Azevedo AR, Silva DS, da Silva RBB, Cardoso JC.** Comparative Effect between Infiltration of Platelet-rich Plasma and the Use of Corticosteroids in the Treatment of Knee Osteoarthritis: A Prospective and Randomized Clinical Trial. *Rev Bras Ortop (Sao Paulo)* 2020; 55:551-556.
9. **Aamir M, Saddiq K, Ahmad S, Shujah IA, Hayat Makki MK, Nazir A.** Comparison of intraarticular injection of hyaluronic acid and steroids in reducing pain of initial stages of knee osteoarthritis. *Medical forum monthly.* 2019; 30:45-49.
10. **Huang Y, Liu X, Xu X, Liu J.** Intra-articular injections of platelet-rich plasma, hyaluronic acid or corticosteroids for knee osteoarthritis: A prospective randomized controlled study. *Orthopade* 2019; 48:239-247.
11. **Maia PAV, Cossich VRA, Salles-Neto JI, Aguiar DP, de Sousa EB.** Viscosupplementation improves pain, function and muscle strength, but not proprioception, in patients with knee osteoarthritis: a prospective randomized trial. *Clinics (Sao Paulo)* 2019;74:e1207.
12. **Khan A, Gillani SF-U-HS, Khan A.** Role of Intra-Articular Corticosteroid with Xylocaine Vs Platelet Rich Plasma for the Treatment of Early Grade II Knee Osteoarthritis at Akhtar Saeed Teaching Hospital Lahore: A Randomized Controlled Trial. *Pak J Med Health Sci* 2018; 12:1432-1435.
13. **Nabi BN, Sedighinejad A, Mardani-Kivi M, Haghghi M, Roushan ZA, Tehran SG, Biazar G.** Comparing the effectiveness of intra-articular platelet-rich plasma and corticosteroid injection under ultrasound guidance on pain control of knee osteoarthritis. *Iranian Red Crescent medical journal* 2018; 20(3).
14. **Phul SH, Mobushir M, Jilani RUA, Khan IS, Malik H, Jan G.** Comparison of intra-articular steroids injection versus platelets rich plasma injection in patients with osteoarthritic knee joints. *Pak J Med Health Sci* 2018 ;12:931-934.
15. **Uslu Güvendi E, Aşkin A, Güvendi G, Koçyiğit H.** Comparison of Efficiency Between Corticosteroid and Platelet Rich Plasma Injection Therapies in Patients With Knee Osteoarthritis. *Arch Rheumatol* 2018; 33:273-281.

16. **Campos ALS, RSP EA, da Silva EB, Fayad SG, Acerbi LD, de Almeida FN, Ooka NHM, Franco JS, Gameiro VS.** Viscosupplementation in patients with severe osteoarthritis of the knee: six month follow-up of a randomized, double-blind clinical trial. *Int Orthop* 2017; 41:2273-2280.
17. **Joshi Jubert N, Rodríguez L, Reverté-Vinaixa MM, Navarro A.** Platelet-Rich Plasma Injections for Advanced Knee Osteoarthritis: A Prospective, Randomized, Double-Blinded Clinical Trial. *Orthop J Sports Med* 2017; 5:2325967116689386.
18. **Siddharth R, Harleen U.** A prospective, randomized trial on comparative study of intrarticular hyaluronic acid with corticosteroid injections for the treatment of osteoarthritis of the knee joint. *Indian J Public Health Res Dev* 2017; 8:14-18.
19. **Vaishya R, Pandit R, Agarwal AK, Vijay V.** Intra-articular hyaluronic acid is superior to steroids in knee osteoarthritis: A comparative, randomized study. *J Clin Orthop Trauma* 2017; 8:85-88.
20. **Askari A, Gholami T, NaghiZadeh MM, Farjam M, Kouhpayeh SA, Shahabfard Z.** Hyaluronic acid compared with corticosteroid injections for the treatment of osteoarthritis of the knee: a randomized control trail. *SpringerPlus* 2016; 5:442.
21. **Bisicchia S, Bernardi G, Tudisco C.** HYADD 4 versus methylprednisolone acetate in symptomatic knee osteoarthritis: a single-centre single blind prospective randomised controlled clinical study with 1-year follow-up. *Clin Exp Rheumatol* 2016; 34:857-863.
22. **Forogh B, Mianehsaz E, Shoaee S, Ahadi T, Raissi GR, Sajadi S.** Effect of single injection of platelet-rich plasma in comparison with corticosteroid on knee osteoarthritis: a double-blind randomized clinical trial. *J Sports Med Phys Fitnes* 2016; 56:901-908.
23. **Tammachote N, Kanitnate S, Yakumpor T, Panichkul P.** Intra-Articular, Single-Shot Hylan G-F 20 Hyaluronic Acid Injection Compared with Corticosteroid in Knee Osteoarthritis: A Double-Blind, Randomized Controlled Trial. *J Bone Joint Surg Am* 2016; 98:885-892.

24. **Trueba Davalillo C, Trueba Vasavilbaso C, Navarrete Álvarez JM, Coronel Granado P, García Jiménez OA, Gimeno Del Sol M, Gil Orbezo F.** Clinical efficacy of intra-articular injections in knee osteoarthritis: a prospective randomized study comparing hyaluronic acid and betamethasone. *Open Access Rheumatol* 2015; 7:9-18.
25. **Habib G, Jabbour A, Artul S, Hakim G.** Intra-articular methylprednisolone acetate injection at the knee joint and the hypothalamic-pituitary-adrenal axis: a randomized controlled study. *Clin Rheumatol* 2014; 33:99-103.
26. **Housman L, Arden N, Schnitzer TJ, Birbara C, Conrozier T, Skrepnik N, Wei N, Bockow B, Waddell D, Tahir H, Hammond A, Goupille P, Sanson BJ, Elkins C, Bailleul F.** Intra-articular hylastan versus steroid for knee osteoarthritis. *Knee Surg Sports Traumatol Arthrosc* 2014; 22:1684-1692.
27. **Leighton R, Akermark C, Therrien R, Richardson JB, Andersson M, Todman MG, Arden NK; DUROLANE Study Group.** NASHA hyaluronic acid vs. methylprednisolone for knee osteoarthritis: a prospective, multi-centre, randomized, non-inferiority trial. *Osteoarthritis Cartilage* 2014; 22:17-25.
28. **Shimizu M, Higuchi H, Takagishi K, Shinozaki T, Kobayashi T.** Clinical and biochemical characteristics after intra-articular injection for the treatment of osteoarthritis of the knee: prospective randomized study of sodium hyaluronate and corticosteroid. *J Orthop Sci* 2010; 15:51-56.
29. **Skwara A, Ponelis R, Tibesku CO, Rosenbaum D, Fuchs-Winkelmann S.** Gait patterns after intraarticular treatment of patients with osteoarthritis of the knee--hyaluronan versus triamcinolone: a prospective, randomized, doubleblind, monocentric study. *Eur J Med Res* 2009; 14:157-164.
30. **Caborn D, Rush J, Lanzer W, Parenti D, Murray C.** A randomized, single-blind comparison of the efficacy and tolerability of hylan G-F 20 and triamcinolone hexacetonide in patients with osteoarthritis of the knee. *J Rheumatol* 2004; 31:333-343.
31. **Leopold SS, Redd BB, Warme WJ, Wehrle PA, Pettis PD, Shott S.** Corticosteroid compared with hyaluronic acid injections for the treatment of osteoarthritis of the knee. A prospective, randomized trial. *J Bone Joint Surg Am* 2003; 85:1197-1203.

32. **Guidolin DD, Ronchetti IP, Lini E, Guerra D, Frizziero L.** Morphological analysis of articular cartilage biopsies from a randomized, clinical study comparing the effects of 500-730 kDa sodium hyaluronate (Hyalgan) and methylprednisolone acetate on primary osteoarthritis of the knee. *Osteoarthritis Cartilage* 2001; 9:371-381.
33. **Pasquali Ronchetti I, Guerra D, Taparelli F, Boraldi F, Bergamini G, Mori G, Zizzi F, Frizziero L.** Morphological analysis of knee synovial membrane biopsies from a randomized controlled clinical study comparing the effects of sodium hyaluronate (Hyalgan) and methylprednisolone acetate (Depomedrol) in osteoarthritis. *Rheumatology (Oxford)* 2001; 40:158-169.
34. **Jones AC, Patrick M, Doherty S, Doherty M.** Intra-articular hyaluronic acid compared to intra-articular triamcinolone hexacetonide in inflammatory knee osteoarthritis. *Osteoarthritis Cartilage* 1995; 3:269-273.
35. **Leardini G, Mattara L, Franceschini M, Perbellini A.** Intra-articular treatment of knee osteoarthritis. A comparative study between hyaluronic acid and 6-methyl prednisolone acetate. *Clin Exp Rheumatol* 1991; 9:375-381.