

## Homoeopathic medicine in different scales of potencies in the management of osteoarthritis – a systematic review

### Medicamentos homeopáticos en diferentes escalas de potencias en el manejo de la artrosis: una revisión sistemática

S Stevenson<sup>1</sup>, Vinodini V. Patil<sup>2\*</sup>

<sup>1</sup> Post Graduate Scholar, Department of Homoeopathic Philosophy and Organon of Medicine, Bharati Vidyapeeth (Deemed to be University) Homoeopathic Medical College & Hospital, Department of Post Graduate and Research centre, Pune-satara road, Dhankawadi, Pune, India, 411043.

Email: [stevensonhomoeopathy@gmail.com](mailto:stevensonhomoeopathy@gmail.com)

<sup>2\*</sup> Corresponding author details:

Associate Professor, Department of Homoeopathic Philosophy and Organon of Medicine, Bharati Vidyapeeth (Deemed to be University) Homoeopathic Medical College & Hospital, Department of Post Graduate and Research centre, Pune-satara road, Dhankawadi, Pune, India, 411043.

Email: [vinodini.patil@bharatividyapeeth.edu](mailto:vinodini.patil@bharatividyapeeth.edu)

#### ABSTRACT

To assess the evidence for homoeopathic medication taken orally in various potencies in the treatment for osteoarthritis. Randomized clinical trials as well as animal experiments comparing homoeopathic medicine to placebo or alternative therapies for osteoarthritis (OA) were considered for inclusion. Systematic database searches and manual backtracking through reference list were used to find them. Information on the result, statistical significance, comparison to the placebo or alternative treatment, and side effects were retrieved. The primary studies methodological caliber was assessed until January 2023. In this review, four trials were chosen, and three of them found evidence that the centesimal scale of potency was successful in treating OA. One study had potency on a decimal scale. The majority of the research design substances investigated lacked significant negative effects. The so-called most recent and fresh form of potencies, 50 millesimal (LM scale) has not yet been researched. As conclusion, we were unable to reach any conclusions regarding the proper scale of potency because the data from the published articles was so limited due to the dearth of randomized controlled trials in the field. It is expected that research would increase and focus in particular on the practical applicability of homoeopathic medicine in various potencies.

Key words: Animal, Experimental studies, Homoeopathic medicine, Systematic review, Osteoarthritis, Potencies, Safety and Randomized controlled trials.

## RESUMEN

La evaluación de la evidencia de la medicación homeopática por vía oral en diversas potencias en el tratamiento de la osteoartritis. Se consideraron para la inclusión los ensayos clínicos aleatorizados, así como los experimentos con animales que compararon la medicina homeopática con el placebo o las terapias alternativas para la osteoartritis (OA). Para encontrarlos, se utilizaron búsquedas sistemáticas en bases de datos y el rastreo manual a través de la lista de referencias. Se recuperó información sobre el resultado, la significación estadística, la comparación con el placebo o el tratamiento alternativo y los efectos secundarios. El calibre metodológico de los estudios primarios se evaluó hasta enero de 2023. En esta revisión, se eligieron cuatro ensayos y tres de ellos encontraron pruebas de que la escala centesimal de potencia fue exitosa en el tratamiento de la OA. Un estudio tenía potencia en una escala decimal. La mayoría de las sustancias de diseño de investigación investigadas carecían de efectos negativos significativos. La llamada forma más reciente y fresca de potencias, 50 milesimal (escala LM) aún no ha sido investigada. Como conclusión no pudimos llegar a ninguna conclusión con respecto a la escala adecuada de potencia porque los datos de los artículos publicados eran muy limitados debido a la escasez de ensayos controlados aleatorios en el campo. Se espera que la investigación aumente y se centre en particular en la aplicabilidad práctica de la medicina homeopática en varias potencias.

Palabras clave: Animal, Estudios experimentales, Medicina homeopática, Revisión sistemática, Artrosis, Potencias, Seguridad y Ensayos controlados aleatorios.

## INTRODUCTION

Osteoarthritis (OA) is the degenerative rheumatic disease of articular cartilage and eventual loss of joint space <sup>[1]</sup>. According to estimates, OA is the tenth most common reason for nonfatal burden with the prevalence up to 40% in India. It is stated as the most prevalent joint illness and the second most prevalent rheumatologic issue. OA is more prevalent in women than in males, but as people get older, it becomes much more common <sup>[2-4]</sup>.

Osteoarthritis Research International (OARSI) has recommended treating symptoms is crucial for enhancing health-related quality of life, slowing the course of joint degeneration, and informing

patients about the disorder's causes and treatment options. However, due to chronicity OA and its effects on quality of life, many patients frequently explore other forms of therapy <sup>[5-6]</sup>. In the medical literature, a wide range of various therapies have been discussed in regard to the treatment of OA. Unfortunately, the medical literature indicates that there is now no effective permanent treatment for OA. Naturally, both conventional and alternative medical professionals have promoted a broad range of alternative remedies for treating such a debilitating disease, but these have not been backed up by compelling research <sup>[7-8]</sup>.

For OA of the knee joint, the homoeopathic medical system can be an effective conservative treatment <sup>[9-13]</sup>. The appropriate dosage and strength of the medicinal substance are required for any system of medicine, and the name of the medication is typically insufficient. Similar to the homoeopathic system of medicine, high dilutions have been reported to have specific effects in numerous basic research tests, but the majority of the findings still need independent validation <sup>[7-8]</sup>. It also raises the issue of which scale of potency should be chosen, for instance, the centesimal scale (C) where the medicinal power is in multiples of 100, the decimal scale (X) where the medicinal power is in multiples of 10 or the 50 millesimal (LM scale) which is referred as renewed dynamization preparation and where the power is multiples of 50, 000. This review is conducted to determine the evidence from the published data on the use of various scales of potencies in the treatment of OA.

## MATERIALS AND METHODS

Eligibility criteria: Using PICO criteria, papers were screened and chosen based on the homoeopathic medicine was used in the study, which met the following criteria: (i) was it a randomized trial; (ii) specified the scale of potency used; (iii) published in English; (iv) the comparison was made with a placebo or another treatment; (v) it involved human or animal subjects with OA. (vi) Full text article availability (vii) The review covered publications through the end of January 2023. Exclusion criteria: Combination of more than one Homeopathic medicine at a time of administration.

Information sources: The Cochrane Library, HomBRex, Google Scholar, CORE-HOM, and Pubmed were among the electronic databases used to find all animal experimental research and human randomised clinical trials of homoeopathic treatment for OA, systematic literature searches were conducted.

Search: The 'osteoarthritis', 'osteoarthrosis', 'rheumatology', 'homoeopathy' were the terms used to search databases using Boolean query and the MeSH terminologies were used for homoeopathic, homeopathy, homoeopathy, and alternative medicine. Additionally, manual backtracking through reference list were used to find them.

## RESULTS

Data extraction and quality assessment: In the initial stage, our goal was to research the use of homoeopathic remedies for osteoarthritis. The steps defined search strategy, literature search, quality evaluation, screening, and article selection were carried out for this aim. In Fig.1, these steps are categorized separately according to PRISMA flowchart. The standard scoring system created and verified by Jadad et al <sup>[14]</sup> was used to evaluate the methodological quality of the data for randomized clinical trials, with items on random allocation, double-blinding, and description of dropouts and withdrawals their key data are summarized in Table 1. Using the "Score for Assessment of Biological Experiment on Homeopathy" (SABEH) <sup>[15]</sup> for animal experimental investigations were graded and their key data are summarized in Table 2.

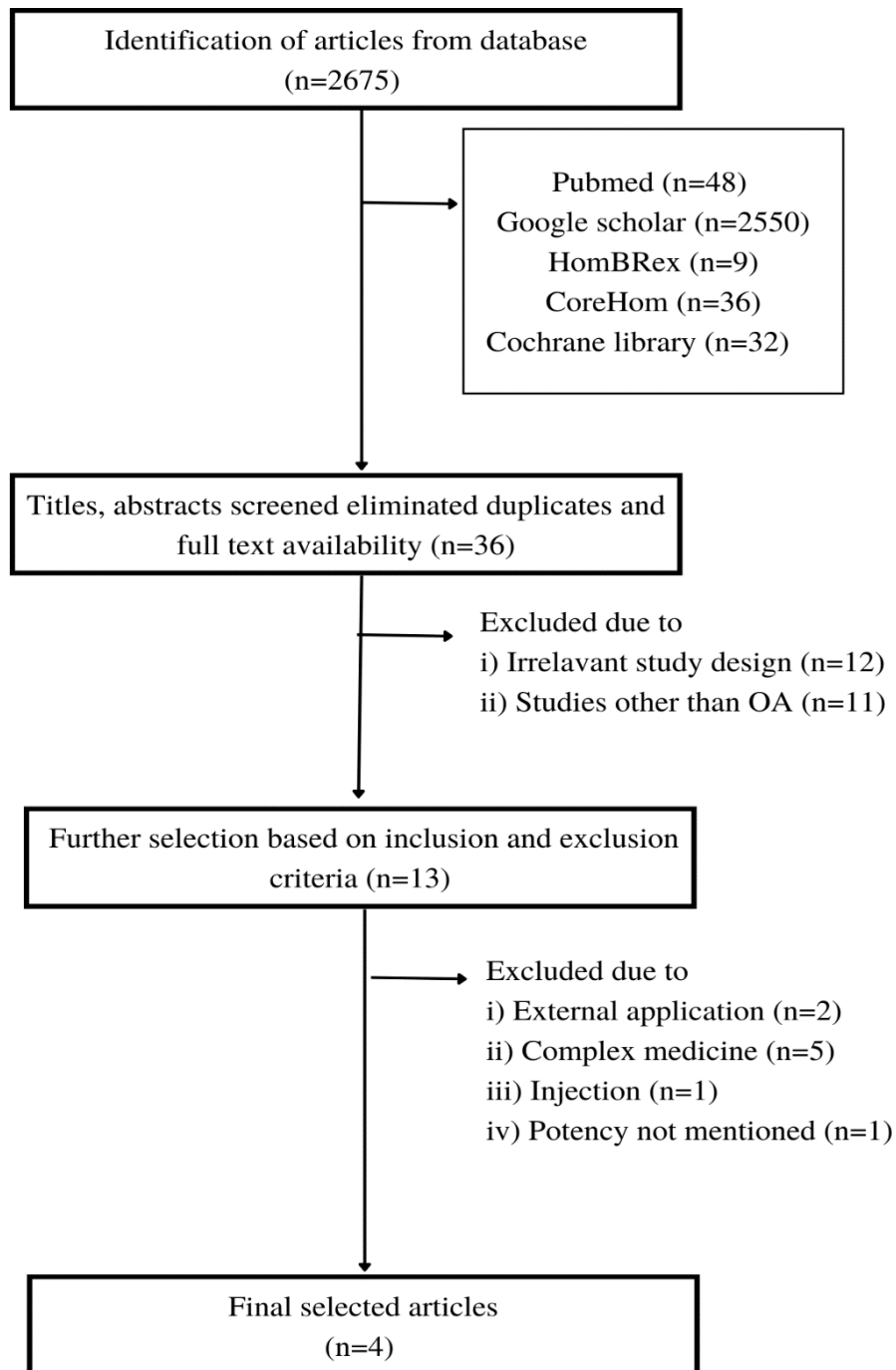


Fig. 1. PRISMA flow chart of data extraction.

Table. 1. Two randomized clinical trials and their key data.

S. no	Year	Author	Study design	Sample size	Scale and potency	Outcome measure	Jadad score	Result
1	2021	Sexena, Reteka [16]	Two group. i. Placebo and physiotherapy ii. Osteoarthritic Nosode and physiotherapy	50	Centesimal 30 C (n= 41) 200 C (n= 9)	Knee Outcome Survey- Activity of Daily Living Scale (KOS-ADLS) questionnaire	3/5	Physiotherapy alongwith osteoarthritic nosode is much more beneficial than comparative group.
2	1983	Shiple Michael [17]	Two group. i. Fenoprofen vs placebo ii. Rhus tox vs placebo.	33	Decimal6X.	Visual analog scale(VAS) on movement,rest, night.	4/5	Same effect as that of placebo.

Table. 2. Two animal experimental studies and their key data

S. no	Year	Author	Methods	Control group	Treatment group	Outcome measure	SABEH	Result
1	2012	Patel, Dhanraj Ramanlal [18]	Randomized by computerized method Blinding- Radiographic images were blinded	2 control group: i. Negative control / CFA control ii. Diclofenac (5 mg / kg)	5 treatment group- Rhus tox 6 C, 200 C, 1M, 10M and CM	i. Plethysmometrically ii. Digital VonFrey apparatus. iii. serum CRP, iv. Arthritic pain score v. Radiological analysis of the arthritic paws.	7/9	Significant reduction in CRP and improvement in pain threshold was observed with the Rhus tox dilutions.
2	2011	Patil, Chandragouda Raosah eb Rambhade [19]	Sample size - 6 rats in each group Randomly allotted. Blinding- Radiographic images were blinded	2 control group: i. Negative control / CFA control ii. Diclofenac (5 mg / kg)	5 treatment group- Rhus tox crude, 3cH, 6 cH, 30 cH, 200 cH	i. Serum CRP, ii. Arthritis score, iii. Radiological analysis	6/9	Rhus tox 200cH better result in CRP reduction. Rhus tox was effective in its crude form as well as homeopathic ultra dilutions.

## DISCUSSION

Though studies discussed used different methods and animal models, all showed promising results in reducing inflammation and protecting against inflammatory lesions except one decimal scale study<sup>[17]</sup>, Centesimal scale was found useful in three among four studies in this review. Out of which two animal experimental study used a well-established animal model for evaluating anti-arthritic activity, Complete Freund's adjuvant (CFA) induced arthritis in rats, which increases the credibility of the results. Additionally, the study used different dilutions of Rhus tox, including homeopathic dilutions, which increases the range of the study and allows for more comprehensive conclusions that there is a difference in action exists among the various potencies of the same medicine though all were effective<sup>[18][19]</sup>. Rhus tox 6 C found to be much effective among the other comparators and 200 C was effective in reduction of serum C-reactive protein (CRP) levels<sup>[19]</sup>. However, the study only used rats as the animal model, which may not necessarily translate to humans.

Another study found that the use of osteoarthritic nosode in combination with physiotherapy is an effective treatment for knee OA. The study used a validated outcome measure Knee injury and Osteoarthritis Outcome

Score-Activities of Daily Living (KOS- ADLS) and the results suggest that the use of osteoarthritic nosode in combination with physiotherapy is an effective treatment for knee OA. However, the study has a small sample size which may limit the generalizability of the results and the study's duration is short which may not fully capture the effects of the treatment over time<sup>[16]</sup>.

Another study compared a homoeopathic remedy Rhus tox. 6X with a standard drug treatment fenoprofen for osteoarthritis of the hip and knee. The study was designed as a double-blind, placebo-controlled crossover trial. The study results showed that fenoprofen produced highly significant pain relief compared to Rhus tox 6X and placebo. The study concluded that Rhus tox. 6X was not found to be more effective than placebo. Limitations of the study were the use of single dose of 5 drops of Rhus tox 6X three times a day, which may not be the optimal dose for all patients. The study does not provide long-term follow-up on patients who dropped out of the trial due to exacerbation of symptoms while on Rhus tox., so it is unclear if these patients experienced relief of symptoms after a delay of four to six weeks<sup>[17]</sup>.

In this systematic review study, the centesimal scale appears to be effective in the management of OA, but it is not conclusive<sup>[18-19]</sup>. Despite promising evidence, the evidence base was either too small or inconsistent. The majority of the compounds studied had no significant side effects. Finally, all of the studies discussed provide important information on the anti-arthritic effect of Rhus tox and a combination of osteoarthritic nosode with physiotherapy. More research, however, is required to comprehend the processes that explain the observations and to verify the results by replication<sup>[20-23]</sup>. LM potencies, which are said to be the most recent and renewed in form, have not yet been studied.

As conclusion, the data available from published papers was limited; we were unable to draw any conclusions about which scale of potency is best. Potency selection is just as important as medicine selection. There is a need for individual studies on different scales of potency with its comparisons and mode of administration of medicine in upcoming researches.

## REFERENCES

1. Long L, Ernst E. Homeopathic remedies for the treatment of osteoarthritis: A systematic review. *Br Homeopath J* 2001;90(1):37–43.
2. Nigwekar DAM, Jani DNJ. Subjective pain relief experienced in Musculoskeletal System (MSS) Disorders by elderly patients on homoeopathic medicines: An observational study. *Int J Homoeopath Sci* 2021;5(1):155–8.
3. Kumar R. A Case of Osteoarthritis Treated by Homoeopathic Constitutional Medicine: A Case Study. *Int J Adv Ayurveda, Yoga, Unani, Siddha Homeopath* 2022;11(1):685–9.



4. More BR, Gite SA, Gite MA, Pardeshi KG, More VB, Jadhav KS, et al. Quality of Health of Osteoarthritic ( Knee Joint ) Patients of 50 To 70 Years Age At Rural Jamkhed Tahsil . 2019;2(4).
5. De Silva V, El-Metwally A, Ernst E, Lewith G, Macfarlane GJ. Evidence for the efficacy of complementary and alternative medicines in the management of osteoarthritis: A systematic review. *Rheumatology* 2011;50(5):911–20.
6. Salari H, Ravanbod MR, Sari AA, Esfandiari A, Bushehr AE. Health Technology Assessment of Homeopathy in Treatment of Knee Osteoarthritis: Comparison with Non- Steroidal Anti-Inflammatory Drugs. *JebhpmeSsuAclr* [Internet] 2017;1(2):74–9. Available from: <http://jebhpme.ssu.ac.ir>
7. Clausen J, van Wijk R, Albrecht H. Review of the use of high potencies in basic research on homeopathy. *Homeopathy* 2011;100(4):288–92.
8. Jutte R, Riley D. A review of the use and role of low potencies in homeopathy. *Complement Ther Med* 2005;13(4): 291–6.
9. Gupta Y, Sharma J, Sharma S. Homoeopathic Management in Osteoarthritis. *Tantia Univ J Homoeopath Med Sci* 2021;4(1):1.
10. Nahler G et al. Treating Osteoarthritis of the Knee with a Homeopathic Preparation. *Biomed. Ther.*1998;XVI(2).
11. Rajeev Kumar N, Harihara Iyer N. An observational study on the effect of individualised homoeopathic medicine administered based on totality of symptoms vis-à-vis personality in cases of osteoarthritis knee. *Indian J Res Homoeopath* 2021;15(2):103–12.
12. Abraham A, Kiran ESJP, Veetil MI. Efficacy of *Toxicodendron pubescens* in relation with serum hyaluronic acid and its application on primary osteoarthritis. 2020;4(1):1–9.
13. Gupta D, Reddy ESR, Sharma P. Effectiveness of rare homoeopathic medicines in the management of knee joint pain in the patients between 45 to 65 years of age. 2020;4(4):120–4.
14. Jadad AR, Moore RA, Carroll D, Jenkinson C, Reynolds DJM, Gavaghan DJ, et al. Assessing the quality of reports of randomized clinical trials: Is blinding necessary? *Control Clin Trials* 1996;17(1):1–12.
15. Patil AD, Aphale P, Sharma DB. Antioxidant effects of Homoeopathic Medicines: Review Based on Preclinical and Clinical Research. *J Pharm Res Int* 2021;33:8–21.
16. Sexena R, Jain T. A Randomised Placebo-Controlled Trial to Assess the Efficacy of

Osteoarthritic nosode in the Treatment of Knee Osteoarthritis. *Homœopathic Links* 2021;34(03):199–205.

17. Osteoarthritis CT of HT of, Broster G, Jenkins M, Clover A, Williams I. Controlled Trial of Homoeopathic Treatment of Osteoarthritis. *Lancet* 1983;321(8316):97–8.
18. Patel DR, Ansari IA, Kachchhi YN, Patel RB, Patil KR, Jadhav RB, et al. Toxicodendron pubescens retains its anti-arthritic efficacy at 1M, 10M and CM homeopathic dilutions. *Homeopathy* 2012;101(3):165–70.
19. Patil CR, Rambhade AD, Jadhav RB, Patil KR, Dubey VK, Sonara BM, et al. Modulation of arthritis in rats by Toxicodendron pubescens and its homeopathic dilutions. *Homeopathy* 2011;100(3):131–7. Available from: <http://dx.doi.org/10.1016/j.homp.2011.01.001>
20. Koley M, Saha S, Medhurst R. Clinical trials of homoeopathy in osteoarthritis: A systematic review. *OA Altern Med* 2013;1(3):1–7.
21. Rajgurav AB, Aphale P. To study the efficacy of Rhus tox in management of cases of osteoarthritis of knee joint. *Int J Res Orthop* 2016;3(1):54.
22. Ernst E. Musculoskeletal conditions and complementary/alternative medicine. *Best Pract Res Clin Rheumatol* 2004;18(4):539–56.
23. Kundu C, Ahmed Z, Das S. Homoeopathic medicine Gettysburg water in osteoarthritis: A case series. *Indian J Res Homoeopath* 2022;16(2).

Received: 20<sup>th</sup> March 2023; Accepted: 08<sup>th</sup> April 2023; First distribution: 23<sup>th</sup> April 2023