

# A Prospective Observational Study: To Evaluate the Effectiveness of Homoeopathic Intervention as an Alternative to Analgesics in Managing the Cases of Arthralgia

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## ABSTRACT

This prospective observational study explores the effectiveness of individualized homeopathic intervention as an alternative to analgesics in managing arthralgia. Conducted over 18 months at Pandit Jawaharlal Nehru State Homoeopathic Medical College & Hospital, Kanpur, U.P., the study involved 200 patients with generalized joint pain, knee joint pain, shoulder joint pain, and heel joint pain. Utilizing the law of similars, homeopathic medicines were prescribed, with *Rhus toxicodendron* being the most frequently recommended. The Visual Analog Scale (VAS) for pain severity demonstrated a statistically significant improvement after 6 months of treatment (mean decrease of -3.39 on VAS,  $p < .00001$ ). Findings suggest that individualized homeopathic treatment offers a promising alternative for arthralgia management, emphasizing the need for further research and contributing valuable insights to holistic patient care.

**Keyword:** Arthralgia, Analgesics, Homeopathy, Complementary and Alternative Medicine

## INTRODUCTION

Arthralgia serves as the medical term denoting pain and discomfort within the joints. This sensation can occur in various joints throughout the body, such as the knees, hips, ankles, feet, shoulders, elbows, wrists, and hands.<sup>1</sup> Common manifestations of arthralgia encompass sensations like sharp or dull pains, stabbing, throbbing, aching, and burning.<sup>2</sup> While joint pain often accompanies the aging process, individuals aged 40 and above are more prone to experiencing arthralgia.<sup>3,4</sup> Fortunately, various treatment options are available, ranging from lifestyle adjustments and medications to physical therapy, providing avenues for managing and alleviating arthralgia symptoms.<sup>5</sup>

Arthralgia can result from the involvement of various articular and structures, including the synovium, synovial fluid, articular cartilage, intra-articular ligaments, joint capsule, extra-articular ligaments, tendons, bursae, muscles, fascia, bone, nerves, and overlying skin.<sup>6</sup> This symptom is commonly linked with various health conditions, encompassing autoimmune diseases like rheumatoid arthritis and lupus, bursitis, chondromalacia patellae, gout, CPPD arthritis (pseudogout), infections, injuries, osteoarthritis, osteomyelitis, septic arthritis, tendinitis, and instances of unusual exertion or overuse, including strains or

sprains. Understanding the multitude of factors contributing to arthralgia is essential for accurate diagnosis and the development of targeted treatment approaches based on the underlying causes.

Arthralgia significantly diminishes the quality of life and has a substantial impact on the psychosocial well-being of affected individuals, as well as their families, leading to Disability Adjusted Life Years (DALYs). The discomfort stemming from musculoskeletal conditions, causing arthralgia, affects over 1.7 billion people globally, ranking as the fourth leading contributor to the overall health burden worldwide, considering both mortality and disability. Over the past two decades, this burden has seen a 45% increase. Current estimates indicate the prevalence of conditions causing arthralgia, including back pain (632 million), neck pain (332 million), osteoarthritis of the knee (251 million), and other musculoskeletal conditions (561 million).<sup>7</sup> In 2020, an estimated 17.6 million (95% uncertainty interval 15.8–20.3) people had rheumatoid arthritis worldwide. The age-standardized global prevalence rate was 208.8 cases (186.8–241.1) per 100 000 population, representing a 14.1% (12.7–15.4) increase since 1990.<sup>8</sup> According to the Global Burden of Disease Study 2017 (GBD 2017), there are 41 million adults with gout worldwide.<sup>9</sup> Globally, 595 million (95% uncertainty interval 535–656) people had osteoarthritis in 2020.<sup>10</sup>

Homeopathy, guided by the law of similars, sees disease as a response to environmental factors, influenced by constitutional elements. It manifests in emotional, intellectual, and physical symptoms, requiring an individualized approach. This departure from conventional methods focuses on understanding the patient's unique constitution and responses. Studies, particularly in rheumatoid arthritis, show promising results with personalized homeopathic treatments, suggesting hope for those affected.

Rheumatologic problems are frequently encountered by practitioners of complementary and alternative medicine (CAM)<sup>11,12</sup> with patients often turning to CAM therapies, including homeopathy, to manage the pain associated with these conditions.<sup>13,14</sup> However, scientific research has not yet produced robust evidence to firmly support the efficacy of CAM, including homeopathy, as treatment options for rheumatologic conditions such as osteoarthritis (OA).<sup>15</sup> Reviews of the available research have generated contradictory conclusions. While certain low-potency homeopathic combinations in randomized controlled trials have shown significant effects in OA, the effectiveness of individualized homeopathy remains unexplored.<sup>17</sup> Consequently, considering the moderate impact of various symptomatic treatments, conventional medicine, particularly in an individualized approach, continues to be the primary and predominant choice for treatment.<sup>18,19</sup>

In homeopathy, the focus is on individual symptoms rather than specific arthritis diagnosis. For instance, *Rhus toxicodendron* suits joint pains worsened on waking but relieved by movement and heat, especially in restless patients.<sup>20</sup> *Bryonia* is preferred for joint pain worsened by movement and a preference for cold weather. Gout symptoms with sensitivity, heat, and swelling find relief in *Apis mellifica* or *Colchicum*, depending on the temperature aggravation. *Rhododendron* is for those sensing weather changes with joint pains improving on movement, while *Ledum* is effective for chilly individuals preferring cold applications.<sup>21,22</sup> Homeopathic remedies are selected based on individual symptomatology for personalized arthritis management. Thus this clinical intervention was planned to assess the effectiveness of individualized homeopathic treatment compared to conventional methods for managing arthralgia cases.

**Material and methods:**

**Study setting:** The study was conducted at OPD /IPD of Pandit Jawaharlal Nehru State Homoeopathic Medical College & Hospital, Kanpur, U.P.

**Study duration:** 18 months

**Study design:** Prospective, observational study.

**Selection of samples:**

**Sample Size-** 200 patients

**Method of Sampling-** The patients were included on the basis of inclusion and exclusion criteria.

**Data collection :**

200 cases were processed in a standard chronic case record. Data of the cases was obtained from the patients, patient's attendants, and physician's own observations. 20 patients were excluded and finally 180 patients were enrolled in the study. Investigation was done when required. Professional secrecy was maintained at the utmost level. The outcome was assessed at the baseline and end of 6 months of treatment.

**Inclusion criteria-**

180 patients of generalized joint pain were included after receiving the informed consent. Patients above 21 years of the age groups were included and both sexes were considered for study. The patients were taken into consideration on first come first serve.

**Exclusion criteria-**

Patients below 21 years of age are excluded. Pregnant and lactating females, non-complying patients and patients who had psychiatric disorders and drug addiction were also excluded from the study.

**Intervention-**

The patients were enrolled after they fulfilled the inclusion criteria and signed the written consent. The signs and symptoms of the patient were documented in the chronic case taking record. Proper repertorization of each case was performed using the Repertory of Homoeopathic Materia Medica by JT Kent. Thereafter a well selected Homeopathic medicine was administered. Selection of potency, dose and repetition of medicine was as per homoeopathic principles. VAS pain scale was used to analyze the severity of pain. Patients were followed up bi-weekly.

**Data Analysis-**

The data collected was analyzed after the completion of study, the result was represented by using different statistical methods after proper analysis of the result from both descriptive and inferential aspects.

**Statistical Techniques-**

Appropriate statistical methods were used for proper analysis of the result. T test (paired) was conducted using MS EXCEL.

**Ethical Clearance:**

Institutional ethical clearance was obtained.

**Results:**
**Table 1-Distribution of medicine on the basis of number of patients prescribed and its percentage.**

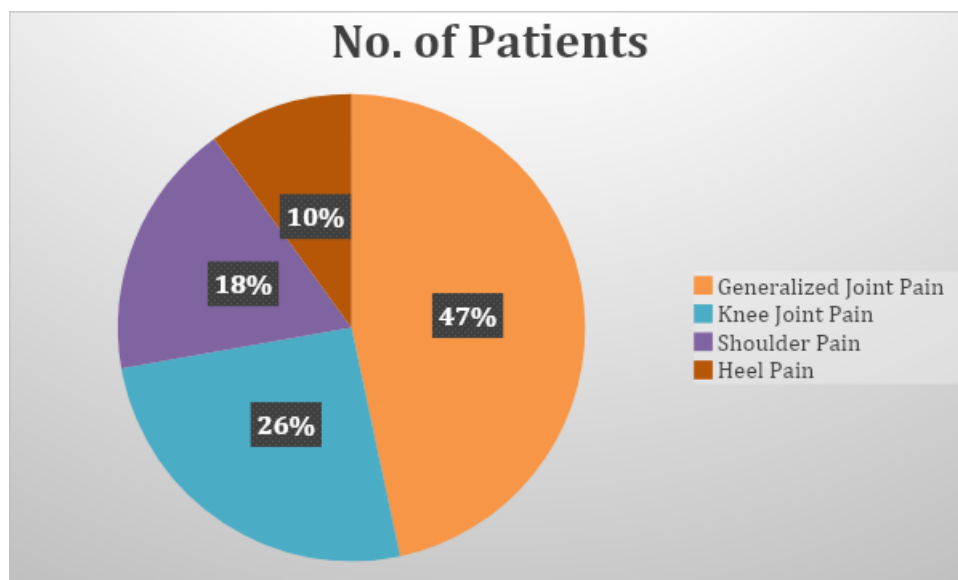
S.No	Medicine	No. of Patients	Percentage
1	Aesculus hip	3	1.66
2	Actea spicata	1	0.5
3	Arsenicum album	3	1.66
4	Arnica montana	15	8.3
5	Aurum met	1	0.5
6	Bellis per	1	0.5
7	Benzoic acid	1	0.5
8	Bryonia alba	15	8.3
9	Calcarea fluorica	3	1.66
10	Calcarea carbonica	8	4.44
11	Carbo vegetabilis	2	1.11
12	Calcarea phos	5	2.77
13	Caulophyllum	1	0.5
14	Causticum	10	6.66
15	Cassia sophera	1	0.5
16	Colchicum autumnale	7	3.88
17	Conium mac	3	1.66
18	China	2	1.11
19	Dulcamara	2	1.11
20	Equisetum	1	0.5
21	Ferrum met	7	3.88
22	Gnaphalium	2	1.11
23	Lycopodium	3	1.66
24	Hypericum	3	1.66
25	Ledum pal	3	1.66
26	Medorrhinum	2	1.11
27	Natrum mur	6	3.33
28	Nux moschata	1	0.5
29	Pulsatilla	2	1.11
30	Rhus toxicodendron	44	24.44
31	Ruta	4	2.22
32	Sanguinaria can	2	1.11
33	Sarsaparilla	1	0.5
34	Sulphur	8	4.44
35	Sticta pulmonale	1	0.5
36	Syphillinum	1	0.5

37	Tabacum	1	0.5
38	Thuja	1	0.5
39	Valeriana	3	1.66

For the sample of 180 cases the medicine was prescribed based on the totality and out of 180 cases 44 cases (24.44%) were prescribed with Rhus toxicodendron, 15 cases each (8.3%) were prescribed with Arnica montana and Bryonia alba, 10 cases (6.66%) were prescribed with Causticum, 8 cases(4.44%) were prescribed with Sulphur and Calcarea carbonica each, 7 cases were prescribed with Colchicum(3.88%), 6 cases were prescribed with Natrum mur (3.33%), 5 cases were prescribed with Calcarea phos (2.77%), 4 cases were prescribed with Ruta(2.22%). 3 cases were prescribed with Calcarea fluor, Conium mac, Lycopodium, Hypericum, Ledum pal and Valeriana each(1.66%) 2 cases were prescribed with Carbo veg, China, Dulcamara, Gnaphalium, Medorrhinum, Pulsatilla and Sanguinaria can each. 1 case each (0.5%) was prescribed with Aurum met, Bellis per, Benzoic Acid, Caulophyllum, Cassia sophera, Equisetum, Nux mos, Sarasaparilla, Sticta pulmonale, Syphillinum, Tabacum and Thuja.

**Table 2- Distribution Of The Number Of Patients On The Basis Of The Joint Involvement And Its Percentage**

S No.	Type of Joint Pain	No. of Patients	Percentage
1	Generalized Joint Pain	84	4.66
2	Knee Joint Pain	46	2.55
3	Shoulder Pain	32	17.77
4	Heel Pain	18	10



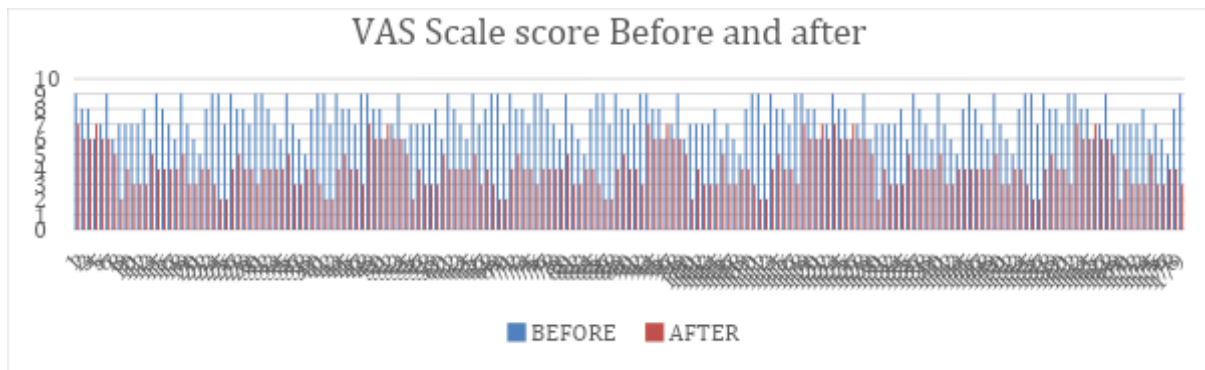
**Figure 1-Graphical representation of the distribution of the number of patients on the basis of the joint involvement and its percentage**

According to the study 84 patients (4.66%) had complaints of Generalized joint pain, while 46 patients (2.55%) suffered from Knee joint pain. 32 patients (17.77%) had complaints of Shoulder pain and 18 (10%) suffered from heel pain.

**Table 3- Distribution of the number of patients on the basis of the potency prescribed**

S No.	Potency	No of Patients
1	30	35
2	200	137
3	1M	8

Out of 180 patients n= 35 were prescribed with 30<sup>th</sup> potency, n=137 were prescribed with 200 potency and n=8 was prescribed with 1M potency.



**Figure 2- Graphical Representation of the Vas Scale before and after treatment**

After calculating the Before and After values on VAS Scale the data was analyzed by using paired T test. The following results were observed.

**Mean:** -3.39

$$\mu = 0$$

$$S^2 = SS/df = 554.4/(179-1) = 3.11$$

$$S^2_M = S^2/N = 3.11/179 = 0.02$$

$$S_M = \sqrt{S^2_M} = \sqrt{0.02} = 0.13$$

**T-value** **Calculation:**

$$t = (M - \mu)/S_M = (-3.39 - 0)/0.13 = -25.67$$

**Significance Level:**

The value of *t* is -25.665139. The value of *p* is < .00001. The result is significant at *p* < .05

The *p* value is < .05 which shows that the results are statistically significant. This study concludes the Effectiveness of Homoeopathic Intervention as an alternative to Analgesics in managing the cases of Arthralgia.

## DISCUSSION:

In this prospective observational study on arthralgia, individualized homeopathic treatments, including *Rhus toxicodendron*, *Arnica montana*, and *Bryonia alba*, demonstrated significant reduction in joint pain, emphasizing homeopathy's potential in enhancing the quality of life. In contrast, the retrospective analysis on rheumatoid arthritis published in 2014 revealed that homeopathic constitutional *similimum* positively impacted RA patients, reducing pain intensity, limiting disability, and improving QoL, thereby reducing the need for analgesics and DMARDs.

Another study on *Curcuma longa* for arthralgia utilized VAS scoring, revealing a significant reduction in pain post-treatment, particularly with the 30th centesimal potency. Symptoms aggravated by motion and cloudy weather improved, showcasing *Curcuma longa*'s efficacy. In comparison, the prospective observational study on arthralgia led to a statistically significant reduction in pain severity, as indicated by a mean decrease of -3.39 on the VAS scale. This emphasizes the potential of homeopathic intervention in alleviating arthralgia-associated pain.

Further in the prospective observational study on arthralgia, individualized homeopathic treatments, including *Rhus toxicodendron*, *Arnica montana*, and *Bryonia alba*, demonstrated significant reduction in joint pain, emphasizing homeopathy's potential in enhancing the quality of life. In contrast, a retrospective analysis on rheumatoid arthritis revealed that homeopathic constitutional *similimum* positively impacted RA patients, reducing pain intensity, limiting disability, and improving QoL, thereby reducing the need for analgesics and DMARDs. formulate a discussion using these three comparisons

However, it is essential to acknowledge certain limitations, including the lack of a control group and potential biases in observational studies. Further research, including randomized controlled trials, is warranted to validate these findings and establish a more robust evidence base. Despite these limitations, the study provides valuable insights into the potential benefits of homeopathy in addressing the challenging issue of arthralgia, offering a promising avenue for holistic and individualized patient care.

## CONCLUSION

In conclusion, this prospective observational study aimed to evaluate the effectiveness of homeopathic intervention as an alternative to analgesics in managing cases of arthralgia. Arthralgia, characterized by joint pain and discomfort, significantly impacts the quality of life and is a major contributor to the global health burden. Various conventional treatments are available, but the study focused on individualized homeopathic approaches guided by the law of *similia*. The study included 200 patients with generalized joint pain, knee joint pain, shoulder pain, and heel pain. Different homeopathic medicines were prescribed based on individual symptoms, with *Rhus toxicodendron* being the most frequently prescribed (24.44%). Other commonly prescribed medicines included *Arnica montana*, *Bryonia alba*, *Causticum*, *Sulphur*, and *Calcarea carbonica*. Potencies varied, with the majority receiving 200 potency.

The effectiveness of the intervention was assessed using the Visual Analog Scale (VAS) for pain severity. The paired T-test analysis revealed a statistically significant improvement in pain scores after homeopathic treatment. The results showed a mean decrease of -3.39 on the VAS scale, with a significant p-value ( $< .00001$ ), indicating a notable reduction in pain severity. The findings suggest that individualized



homeopathic treatment can be effective in managing arthralgia, providing an alternative to conventional analgesics. This aligns with the principles of homeopathy, which emphasizes a personalized approach based on the patient's unique symptoms and constitution. The study contributes to the existing literature by demonstrating positive outcomes in arthralgia management through homeopathic intervention.

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## REFERENCES

1. MedlinePlus. [Arthritis](#).
2. Merck Manual: Professional Version. [Pain in and around a single joint](#).
3. National Institute of Arthritis and Musculoskeletal and Skin Diseases. [Updated estimates suggested a higher number of U.S. adults with arthritis](#).
4. Centers for Disease Control and Prevention. [Joint Pain and Arthritis](#).
5. MedlinePlus. [Joint pain](#).
6. Swash E.M, Glynn M. editors, Hutchison's Clinical Methods-An integrated approach to clinical practice. 22nd ed. Philadelphia, USA:Elsevier Limited, 2007.
7. Mishra M, Srivastava AK, Srivastava VK. Prevalence and risk of musculoskeletal pain in rural homemakers of North India. Med J DY Patil Univ, 10: 138-42. Available from: <http://www.mjdrdypu.org/text.asp?2017/10/2/138/202092>
8. GBD 2021 Rheumatoid Arthritis Collaborators. Global, regional, and national burden of rheumatoid arthritis, 1990–2020, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021. *The Lancet Rheumatology*. October 2023. doi: 10.1016/S2665-9913(23)00211-4.
9. DALYs GBD, Collaborators H. Global, regional, and national disability-adjusted life-years (DALYs) for 359 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018;392(10159):1859–922. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
10. GBD 2021 Osteoarthritis Collaborators. Global, regional, and national burden of osteoarthritis, 1990–2020 and projections to 2050: a systematic analysis for the Global Burden of Disease Study 2021. *Lancet Rheumatol* [Internet]. 2023;5(9):e508–22. Available from: [http://dx.doi.org/10.1016/S2665-9913\(23\)00163-7](http://dx.doi.org/10.1016/S2665-9913(23)00163-7)
11. 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 May;50(5): 911–20.
12. Alvarez-Hernández E, César CasasolaVargas, Lino-Pérez L, Burgos-Vargas R, Vazquez-Melladoa J. Complementary and alternative medicine in patients attending a rheumatology department for the first time: analysis of 800 patients.
13. Witt CM, Michalsen A, Roll S, Morandi A, Gupta S, Rosenberg M, et al. Comparative effectiveness of a complex ayurvedic treatment and conventional standard care in osteoarthritis of the knee—study protocol. *Trials*. 2013 May;14:149.
14. Fouladbakhsh J. Complementary and alternative modalities to relieve osteoarthritis symptoms. *Am J Nurs*. 2012 Mar;112(3 Suppl 1):S44–51.



15. Ernst E, Posadzki P. Complementary and alternative medicine for rheumatoid arthritis and osteoarthritis: an overview of systematic reviews. *Curr Pain Headache Rep.* 2011;15(6):431–7. 12. Jonas WB, Linde K, Ramirez G
16. Jonas WB, Linde K, Ramirez G. Homoeopathy and rheumatic disease. *Rheum Dis Clin North Am.* 2000 Feb;26(1):117–23.
17. Long L, Ernst E. Homeopathic remedies for the treatment of osteoarthritis: a systematic review. *Br Homeopath J.* 2001 Jan;90(1):37–43.
18. Ernst E. Musculoskeletal conditions and complementary/alternative medicine. *Best Pract Res Clin Rheumatol.* 2004 Aug;18(4):539–56.
19. Soeken KL. Selected CAM therapies for arthritis-related pain: the evidence from systematic reviews. *Clin J Pain.* 2004 Jan–Feb;20(1):13–8.
20. Weiner DK, Ernst E. Complementary and alternative approaches to the treatment of persistent musculoskeletal pain. *Clin J Pain.* 2004 Jul–Aug;20(4):244–55.
21. Sarzi-Puttini P, Cimmino MA, Scarpa R, Caporali R, Parazzini F, Zaninelli A, et al. Osteoarthritis: an overview of the disease and its treatment strategies. *Semin Arthritis Rheum.* 2005 Aug; 35(1 Suppl 1):1–10.
22. Ernst E. Complementary or alternative therapies for osteoarthritis. *Nat Clin Pract Rheumatol.* 2006 Feb;2(2):74–80.