Research Article

Comparative efficacy of Cimicifuga racemosa 1000cH and Rhododendron chrysanthum 1000cH in patients with trapezitis: a randomized comparative clinical study

Dr. Sumi T. S[1], Dr. Neha V Jadhavrao[2*]

[1*]PG Scholar, Department Of Homoeopathic Materia Medica, Bharati Vidyapeeth (Deemed to be University) Homoeopathic Medical College and Hospital,Pune,411043,Maharashtra, India., Email : sumithankamony@gmail.com ; ORCID : 0009-0001-3182-2061

[2*]Dr. Neha V Jadhavrao, Assistant Professor, Department Of Homoeopathic Materia Medica, Bharati Vidyapeeth (Deemed to be University) Homoeopathic Medical College and Hospital,Pune,411043,Maharashtra, India. Email : neha.jadhavrao@gmail.com ; ORCID ID : 0009-0003-7937-2383

Abstract

Background: Trapezitis is a musculoskeletal condition characterized by pain, stiffness, and restricted movement, which can affect quality of life. Clinical evidence regarding the efficacy of Cimicifuga racemosa and Rhododendron chrysanthum in high dilutions in trapezitis is limited.

Aims: To compare the clinical outcomes of Cimicifuga racemosa 1000cH and Rhododendron chrysanthum 1000cH in patients aged 20–50 years with trapezitis.

Methodology: In this randomized comparative clinical study, 52 participants aged 20–50 years were allocated to two groups of 26 participants each. Group A received Cimicifuga racemosa 1000cH and Group B received Rhododendron chrysanthum 1000cH. Pain intensity was assessed using the Visual Analogue Scale (VAS 0–10) before and after treatment. Symptom-wise improvement was recorded. Within-group changes were analysed using paired t-tests and between-group differences using unpaired t-tests.

Results: Mean VAS decreased from 7.62 ± 1.06 to 1.73 ± 1.64 in Group A and from 7.38 ± 1.10 to 3.62 ± 2.37 in Group B. Within-group reductions were statistically significant in both groups ($p < 0.0001$). The between-group difference was significant for post-treatment VAS ($p = 0.0017$) and mean VAS change ($p = 0.0020$). Mean VAS reduction was 77.68% in Group A and 49.08% in Group B. Symptom-wise improvement was recorded for pain in the neck, stiffness, headache, numbness and limitation of range of motion in both groups.

Conclusions: Both treatment groups showed improvement in VAS and recorded symptoms. In this study population, the reduction in VAS was greater with Cimicifuga racemosa 1000cH than with Rhododendron chrysanthum 1000cH. Interpretation is limited by the study design and requires confirmation in adequately registered, blinded, larger controlled trials.

Keywords: Trapezitis; Neck pain; Visual Analog Scale; Homeopathy; High dilution.

Introduction

Trapezitis is described as a painful inflammatory condition involving the trapezius muscle and associated with pain, stiffness and muscle spasm. Neck and shoulder complaints are common among working age populations and may be associated with repetitive work, forceful exertion, prolonged static loading and awkward postures [1-3].

The trapezius is a large superficial muscle extending between the posterior neck, thoracic spine, clavicle and scapula. Its superior, middle and inferior fibres contribute to scapular elevation, retraction and depression respectively, and participate in upward rotation of the scapula [4].

Trapezius-region pain may be associated with myofascial trigger points and sustained muscular contraction. Proposed mechanisms described in the literature include local metabolic changes, vascular compression, nociceptor activation and inflammatory mediator release [5-7].

Management of trapezius-region pain may include exercise and physiotherapy, manual or trigger-point techniques, and pharmacological treatment such as non-steroidal anti-inflammatory drugs and muscle relaxants [8-10].

In homoeopathic literature, Cimicifuga racemosa is described in relation to neck stiffness and muscular complaints,

including complaints associated with overuse [11-13]. Rhododendron chrysanthum is described in relation to stiffness, including neck stiffness, and symptoms influenced by cold or damp weather [12]. The present study was undertaken to compare the outcomes of these two highly diluted homoeopathic preparations in patients with trapezitis.

The rationale for the present comparison was therefore based on the reported clinical indications of the two preparations in homoeopathic materia medica and the need for comparative clinical data in patients with trapezitis.

Aim And Objectives

Aim: To compare the efficacy related clinical outcomes of Cimicifuga racemosa 1000cH and Rhododendron chrysanthum 1000cH in patients with trapezitis.

Primary objective: To assess symptomwise improvement in patients with trapezitis receiving Cimicifuga racemosa 1000cH & Rhododendron chrysanthum 1000cH.

Secondary objective: To assess change in pain intensity using the Visual Analogue Scale (VAS).

Materials And Methods

Study design and setting

This was a randomized comparative clinical study involving 52 participants aged 20–50 years. Participants were recruited from the outpatient department of Bharati Vidyapeeth Medical Foundation and Homoeopathic Hospital and from peripheral, rural and urban camps conducted by the hospital. The study duration was approximately 18 months.

The original study record states that 70 participants were screened and that a minimum of 52 cases were enrolled. The exact numbers excluded at each stage, reasons for exclusion, withdrawals are losses to follow-up and numbers analysed.

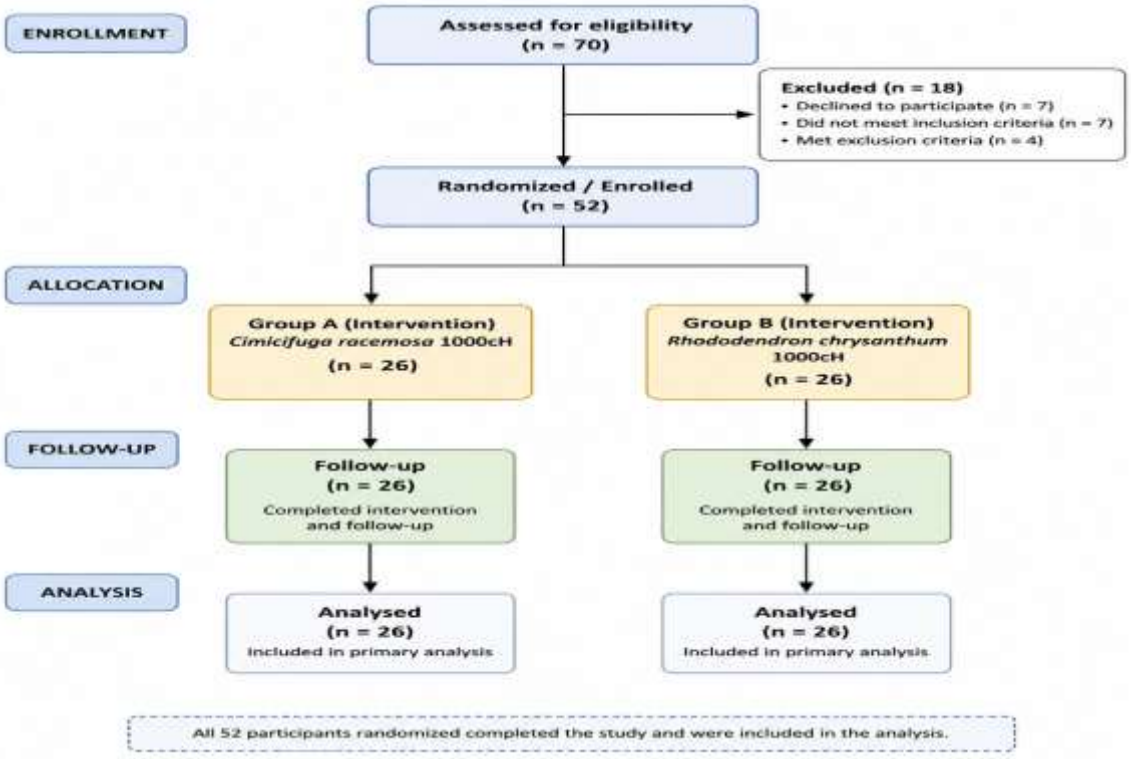


Figure 1. CONSORT flow diagram of participant recruitment, allocation, follow-up and analysis.

Participants

Participants were men and women aged 20–50 years who fulfilled the study case definition and were willing to provide informed consent were included in the study.

Inclusion criteria were age of 20–50 years, both sexes, willingness to provide consent, and fulfilment of the study case definition.

Exclusion criteria were age below 20 or above 50 years, pregnancy or lactation, and a history of other musculoskeletal disease, malignancy or HIV infection.

Case definition

Both previously diagnosed and newly diagnosed patients with Trapezitis were considered for the study.The clinical features included Neck pain , Headaches involving the temples or base of the skull, neck stiffness, an inflamed or aching shoulder, Limited range of motion of the affected part,Tingling, numbness, or weakness at the site without any complications are taken for the study.

Randomization and allocation

Participants were assigned to two groups by a chit method with 26 participants allocated to each group.

Interventions

Group A received Cimicifuga racemosa 1000cH. Group B received Rhododendron chrysanthum 1000cH one dose then four pills of SL twice daily in each group. The medicines were prepared from standard homoeopathic pharmacy which are GMP certified as per norms of homoeopathic pharmacopoeia (HPI)be used.

Follow-up

Patients were followed at 15-day intervals, with symptomatic clinical changes and visual analogue scores are recorded at follow-up.

Outcome measures

Primary outcome: Symptom-wise improvement in pain in the neck, stiffness, occipital headache, numbness and limitation of range of motion was recorded.

Secondary outcome: Pain intensity was assessed using the Visual Analogue Scale (VAS) scored from 0 (no pain) to 10 (worst possible pain). VAS was recorded before and after treatment. Reduction in VAS was interpreted as improvement in pain intensity.

Sample size

The study record states that 70 participants were screened and 52 were enrolled, with 26 participants in each treatment group.

Statistical Analysis

Participant flow and baseline characteristics

Seventy participants were screened and 52 participants were enrolled and randomized, with 26 participants in each group.

The groups were comparable in age and baseline VAS. Group A included 14 males and 12 females, while Group B included 7 males and 19 females. Mean age was 32.3 ± 8.7 years in Group A and 29.0 ± 8.0 years in Group B (p = 0.159). Baseline VAS was 7.62 ± 1.06 in Group A and 7.38 ± 1.10 in Group B (p = 0.445).

Table 1. Baseline demographic and clinical characteristics.

Characteristic	Cimicifuga racemosa 1000cH (n=26)	Rhododendron chrysanthum 1000cH (n=26)	p-value
Age, mean ± SD (years)	32.3 ± 8.7	29.0 ± 8.0	0.159

Age range (years)	20–50	20–50	—
Male / Female	14 / 12	7 / 19	—
Baseline VAS, mean ± SD	7.62 ± 1.06	7.38 ± 1.10	0.445
Baseline VAS range	5–9	5–9	—
Baseline VAS median	8.0	7.5	—

Primary outcome: symptom-wise improvement

The number and percentage of participants showing improvement in each assessed symptom at the end of treatment are shown in Table 2.

Table 2. Symptom-wise improvement after treatment.

Symptom	Cimicifuga racemosa 1000cH	Rhododendron chrysanthum 1000cH
Pain in neck	24/26 (92.30%)	22/26 (84.61%)
Stiffness	23/26 (88.46%)	17/26 (65.38%)
Occipital headache	20/26 (76.92%)	20/26 (76.92%)
Numbness	26/26 (100%)	25/26 (96.15%)
Limited range of motion	23/26 (88.46%)	19/26 (73.07%)

Cimicifuga racemosa 1000cH showed a higher proportion of participants with recorded improvement in four of the five assessed symptoms. The proportions were equal for occipital headache (76.92% in each group).

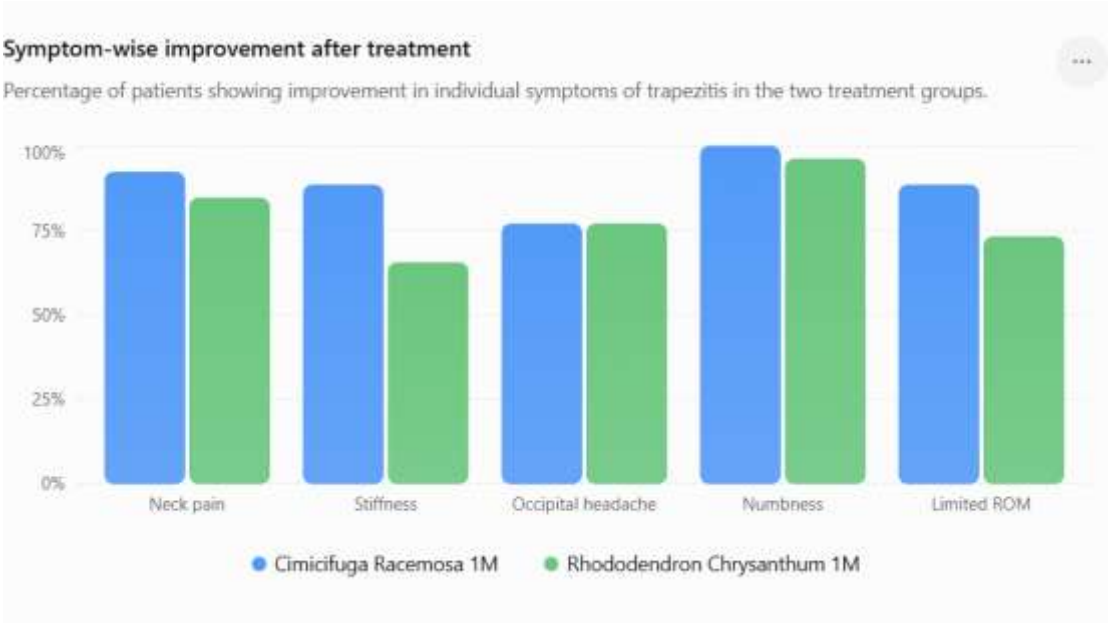


Figure 2 : symptomwise improvement after treatment

Secondary outcome: Visual Analogue ScaleWithin-group analysis(paired t test)

Table 3. Within-group VAS comparison before and after treatment.

Group	Before treatment, mean ± SD	After treatment, mean ± SD	Paired t	p-value
Cimicifuga racemosa 1000cH	7.62 ± 1.06	1.73 ± 1.64	17.364	<0.0001
Rhododendron chrysanthum 1000cH	7.38 ± 1.10	3.62 ± 2.37	6.924	<0.0001

Group A (Cimicifuga Racemosa 1000cH): VAS score reduced dramatically from 7.62 ± 1.06 to 1.73 ± 1.64 — a mean reduction of 5.88 points (–77.68%). This is highly significant (t = 17.364, p < 0.0001), with an exceptionally large t-value indicating a consistent and powerful treatment effect across all 26 patients.
Group B (Rhododendron Chrysanthum 1000cH): VAS score reduced from 7.38 ± 1.10 to 3.62 ± 2.37 — a mean reduction of 3.77 points (–49.08%). Also highly significant (t = 6.924, p < 0.0001), but with a considerably larger residual pain burden and greater variability in response than Group A.

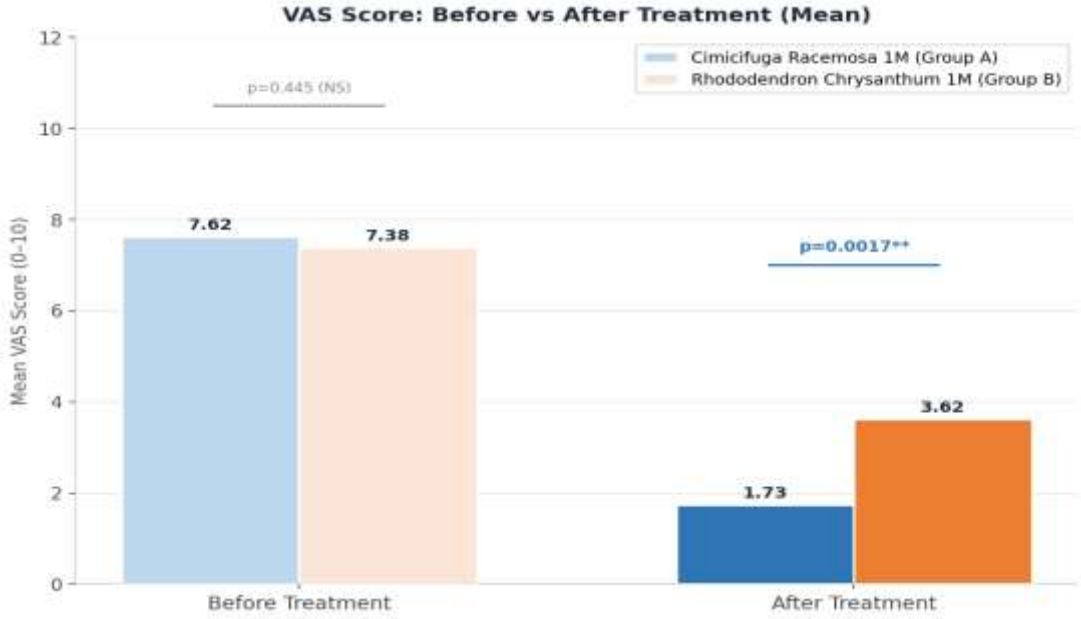


Fig 3 Mean VAS Score Before and After Treatment – Group A vs Group B (Post-treatment between-group p = 0.0017)**

Between-group analysis(unpaired t test)

Table 4. Between-group comparison of baseline VAS, post-treatment VAS and mean VAS change.

Comparison	Group A (Cimcifuga Racemosa)	Group B (Rhododendron Chrysanthum)	t- value	p-value
Baseline VAS (Mean ± SD)	7.62 ± 1.06	7.38 ± 1.10	0.771	0.445 (NS)
Post-Treatment VAS (Mean ± SD)	1.73 ± 1.64	3.62 ± 2.37	–3.337	0.0017 **
Mean VAS Change (After	–5.88 ± 1.73	–3.77 ± 2.78	–3.299	0.0020 **

– Before)				
Mean % VAS Reduction	77.68%	49.08%	—	—

Post-Treatment VAS: Group A achieved a significantly lower post-treatment VAS (1.73 vs 3.62; t = –3.337, p = 0.0017), indicating markedly superior pain relief.
Change Score: The mean VAS reduction in Group A (–5.88 points) was significantly greater than in Group B (–3.77 points; t = –3.299, p = 0.0020). This 2.11-point difference on a 10-point scale represents a clinically meaningful and statistically significant advantage for Cimicifuga Racemosa 1M.
Percentage Reduction: Group A achieved a 77.68% mean VAS reduction versus 49.08% in Group B — a difference of 28.6 percentage points, underscoring the superior analgesic efficacy of Cimicifuga Racemosa 1M in trapezitis.

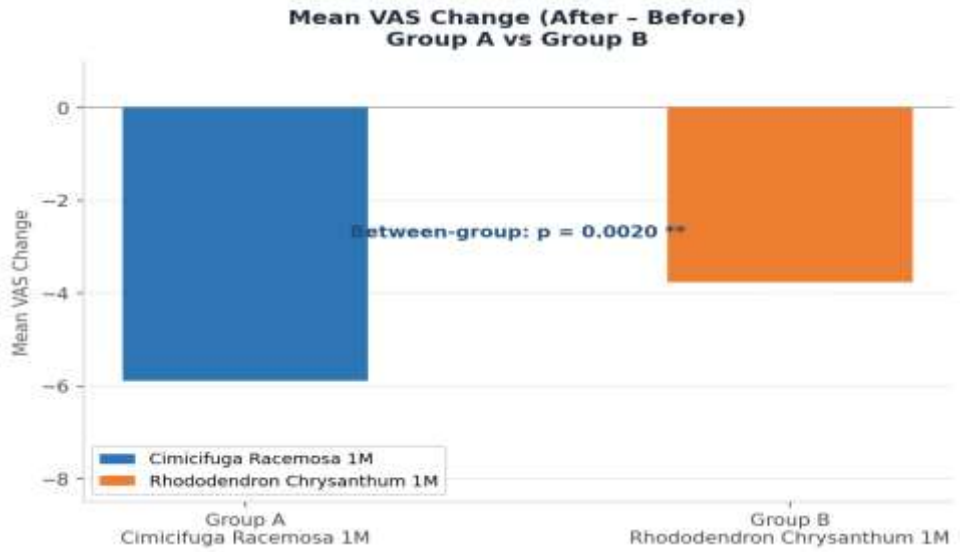


Figure 4: Mean VAS Change (After – Before) – Group A vs Group B (Between-group p = 0.0020)**

Clinical Assessment Categories
The source analysis categorized participants according to percentage VAS reduction. These categories were defined as marked improvement (≥50% reduction), moderate improvement (25–49%), mild improvement (<25%) and no improvement (0%).

Table 5. Clinical assessment categories according to percentage VAS reduction

Category	Cimicifuga racemosa 1000cH	Rhododendron chrysanthum 1000cH
Marked improvement (≥50%)	23/26 (88.5%)	10/26 (38.5%)
Moderate improvement (25–49%)	1/26 (3.8%)	6/26 (23.1%)
Mild improvement (<25%)	2/26 (7.7%)	8/26 (30.8%)
No improvement (0%)	0/26 (0%)	2/26 (7.7%)
Any improvement	26/26 (100%)	24/26 (92.3%)

The proportion classified as having marked improvement was higher in Group A (88.5%) than Group B (38.5%). Critically, no patient in Group A showed zero improvement, whereas 2 patients in Group B showed no improvement

at all.

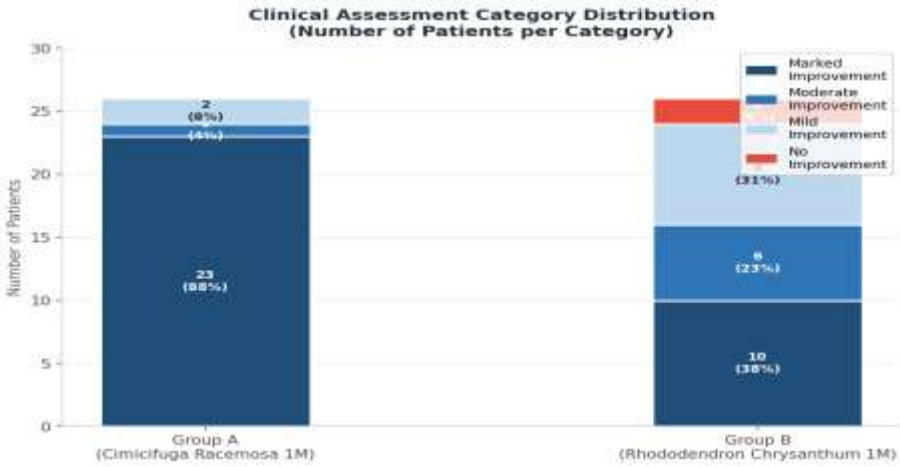


Figure 5. Distribution of clinical assessment categories.

Discussion

The present randomized comparative clinical study evaluated the outcomes of Cimicifuga racemosa 1000cH and Rhododendron chrysanthum 1000cH in 52 participants with trapezitis. Both groups demonstrated statistically significant reductions in Visual Analogue Scale (VAS) scores following treatment. However, the between-group comparison showed a significantly greater reduction in pain intensity in the Cimicifuga racemosa group, suggesting comparatively better outcomes with this preparation in the present study.

The mean VAS score decreased from 7.62 to 1.73 in the Cimicifuga racemosa group (77.68% reduction), compared with 7.38 to 3.62 in the Rhododendron chrysanthum group (49.08% reduction). Baseline VAS scores were comparable between groups ($p = 0.445$), while significant differences were observed in post-treatment scores ($p = 0.0017$) and mean VAS change ($p = 0.0020$). These findings indicate a greater reduction in pain intensity in the Cimicifuga racemosa group.

Symptom-wise analysis demonstrated higher proportions of improvement in neck pain, stiffness, numbness, and restricted range of motion in the Cimicifuga racemosa group. Improvement in occipital headache was identical in both groups. These findings indicate variation in symptom-specific outcomes and support the importance of evaluating both pain intensity and individual clinical manifestations of trapezitis.

The selection of both preparations was based on their respective descriptions in homoeopathic materia medica. Cimicifuga racemosa is traditionally associated with muscular pain and neck stiffness, whereas Rhododendron chrysanthum is described in relation to stiffness and weather-related aggravations [11–13]. These traditional indications provide a rationale for their selection but do not independently establish clinical efficacy.

Experimental studies have reported anti-inflammatory or pain-related biological activities associated with extracts or constituents of Cimicifuga and Rhododendron species [14,15]. However, findings involving plant extracts or isolated constituents cannot be directly extrapolated to homoeopathic preparations at 1000cH. Further clinical research is required to confirm these findings and investigate the clinical outcomes and possible mechanisms associated with these preparations.

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Strength Of The Study :

- Randomization: Random allocation of participants helps reduce selection bias.

- Blinding: Participants and outcome assessors were blinded to treatment allocation, which helps reduce bias.
- Standardized assessment: The Visual Analogue Scale (VAS) was used to assess pain before and after treatment.
- Equal group sizes: Both groups had 26 participants who completed the study.\
- Defined study population: Participants were restricted to the 20–50-year age group, making the study population more specific.
- Clinical relevance: The study addresses a practical musculoskeletal condition encountered in clinical practice.
- Potential to contribute to evidence: It provides preliminary comparative clinical data on two medicines for which clinical evidence in trapezitis is limited.
- Equal potency: Both medicines were used in 1000cH potency, helping maintain consistency in the comparison.
- Follow-up assessment: Repeated follow-ups over five visits allowed changes in pain scores to be monitored over time.

Limitations.

- It did not include a placebo or untreated control group, so within-group improvement cannot by itself distinguish treatment effects from natural history, regression to the mean, expectation effects or other nonspecific influences.
- The sample size was modest, follow-up was limited, and the supplied manuscript does not provide sufficient documentation of the blinding procedure, trial registration, ethics approval number, formal sample-size calculation, or a complete participant flow. These issues should be resolved and transparently reported before submission.
- The study also relied on VAS as the principal quantitative measure. Although VAS is useful for pain intensity, additional validated measures of disability or cervical function could strengthen future trials.
- Larger, prospectively registered, appropriately blinded and controlled studies would be needed to confirm the comparative finding.

Conclusion

In this randomized comparative clinical study involving 52 patients with trapezitis, both treatment groups demonstrated a reduction in Visual Analogue Scale (VAS) scores following treatment. The Cimicifuga racemosa 1000cH group showed a greater mean reduction in VAS scores compared with the Rhododendron chrysanthum 1000cH group. Between-group analysis revealed statistically significant differences in post-treatment VAS scores and mean VAS changes, favouring the Cimicifuga racemosa group.

Symptom-wise assessment also showed higher proportions of recorded improvement in most assessed symptoms in the Cimicifuga racemosa group, while improvement in occipital headache was equal in both groups.

These findings indicate comparatively greater improvement in the Cimicifuga racemosa group under the conditions of this study. However, the absence of a placebo or untreated control group, limited sample size and follow-up, and methodological limitations restrict definitive conclusions regarding treatment efficacy. Further adequately powered, prospectively registered and appropriately controlled clinical studies are required to confirm these findings.

Declarations

Funding

No external funding was received for this study.

Conflict of interest

The authors declare that there is no conflict of interest.

Consent for publication

Not applicable. No individually identifiable participant information or images are presented in this manuscript.

Competing interests

The authors declare that they have no competing interests.

Author contributions

Dr.Sumi T.S contributed to the study conception and design, participant recruitment, data collection, data interpretation, and preparation of the manuscript.

Dr. Neha V Jadhavrao contributed to study supervision, clinical guidance, interpretation of the findings, and critical revision of the manuscript.

Both authors reviewed and approved the final manuscript.

Artificial intelligence statement

Artificial intelligence-assisted tools were used during manuscript preparation for language refinement, organization of text, and editorial assistance. The authors reviewed and verified the manuscript content and remain responsible for the accuracy, integrity, and interpretation of the reported data and conclusions. No AI tool was used to generate, alter, or fabricate the study data or statistical results.

Ethics and informed consent

The study protocol was approved by the Institutional Ethics Committee of Bharati Vidyapeeth (Deemed to be University) Homoeopathic Medical College and Hospital, Pune, Maharashtra, India (Protocol No. BVDUHMC/2024/12).

The trial was prospectively registered with the Clinical Trials Registry–India (CTRI/2024/11/076855) prior to participant enrolment. Written informed consent was obtained from all participants before enrolment. Consent forms were provided in English, Hindi, and Marathi to facilitate participant comprehension.

The study was conducted in accordance with the ethical principles of the Declaration of Helsinki.

Data availability

The datasets generated and or analysed during the current study are not publicly available because they contain participant-level clinical information. Data may be made available from the corresponding author on reasonable request, subject to applicable ethical and institutional requirements.

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