IJAYUSH
International Journal of AYUSH
AYURVEDA, YOGA, UNANI, SIDDHA AND HOMEOPATHY
http://internationaljournal.org.in/journal/index.php/ijayush/

International Journal
Panacea
Research library
ISSN: 2349 7025

Original Research Article | Volume 14 Issue 12 | December 2025

RETROSPECTIVE STUDY TO KNOW THE EFFICACY OF ACTAEA RACEMOSA IN CENTESIMAL POTENCY IN THE PAIN MANAGEMENT OF CERVICAL SPONDYLOSIS

***Dr. Samar Chatterjee[1], Dr. K.L.P. Susmitha[2], Dr. K. Sai Varshini[2], Dr. G. Susmitha[2], Dr. E. Poojitha[2], Dr. N.V. Suresh[2]**

[1]Head of the Department and Professor, Department of Homoeopathic Materia Medica, JIMS Homoeopathic Medical College and Hospital, Hyderabad.

[2]Post Graduate Scholars, Department of Homoeopathic Materia Medica, JIMS Homoeopathic Medical College and Hospital, Hyderabad.

***Corresponding Author's Email ID: doctorsamarchatterjeee@gmail.com**

ABSTRACT:

Background:

Cervical spondylosis is a common degenerative disorder of the cervical spine, often associated with chronic pain, stiffness, and neurological symptoms, significantly impairing quality of life. While conventional treatments provide symptomatic relief, they may have limitations in long-term efficacy and safety. This study explores the therapeutic potential of *Actaea racemosa* in centesimal potency for managing Cervical spondylosis-related pain by using the visual analogue scale (VAS).

Objective:

To evaluate the efficacy of *Actaea racemosa* 200C in reducing pain and improving associated symptoms in patients with cervical spondylosis.

Methods:

A retrospective observational study was conducted on 30 patients diagnosed with cervical spondylosis at the outpatient department of JIMS homoeopathic medical college over a

period of four months. Data were collected from case records, and changes in pain (assessed via the Visual Analogue Scale), mobility, and associated symptoms such as vertigo, radiation, and tingling were documented before and after treatment with *Actaea racemosa* 30C and 200C.

Results:

Post-treatment, 83.33% of patients showed pain reduction to a VAS score of 1–5, compared to 10% pre-treatment. Mobility improved in 96.66% of cases. Neurological symptoms such as radiation of pain (70% pre-treatment) and tingling (36.66%) were notably reduced. The greatest improvement was observed in patients under 30 and in females, with a consistent trend of better outcomes in early intervention.

Conclusion:

Actaea racemosa 200C demonstrated marked effectiveness in the management of cervical spondylosis, particularly in reducing pain and improving functional mobility. These findings support its role as a valuable homoeopathic intervention for CS, warranting further validation through controlled clinical trials.

Keywords:

Actaea racemosa, Homoeopathy, Cervical Spondylosis, Pain Management, Visual Analogue Scale.

1.INTRODUCTION:

Cervical spondylosis is a degenerative disorder of cervical spine (osteophyte formation), intervertebral discs (deformation and disc herniation), ligaments and cartilaginous material.[1,2]

80-90% of people over the age of 50 years have radiological evidence of degenerative changes in the cervical spine, but the vast majority of these are asymptomatic.[2]

The main aetiology of cervical spondylosis is age-related disc degeneration and sedentary occupation. However, there are few exceptions where spinal injuries to the discs can augment the degenerative process in younger patients.[3]

The most common symptoms of cervical spondylosis include intermittent, persistent neck and shoulder pain. The pain is quite often associated with stiffness and numbness and may

radiate to the affected nerve root. Pain may also radiate to the shoulders and occiput. Many patients present with interscapular pain, pain in the arm, forearm and/or hand. The significant radiological changes noted in cervical spondylosis are (a) narrowing of disc space, (b) presence of osteophytes arising from the disc margins and (c) osteoarthritic changes in the posterior zygapophyseal joints.[4]

The nerve root foramina and the spinal canal may be narrowed, and nerve roots and the spinal cord could be compressed. Symptoms include neck pain and frontal headaches, paraesthesia and pain in varying distributions according to which nerve roots are involved, progressive weakness from nerve root compression (radiculopathy), and even paralysis and bowel or bladder dysfunction if the spinal cord is compressed (myelopathy).[5]

Cervical spondylosis is a widely prevalent degenerative disorder affecting the cervical spine, primarily resulting from age-related changes such as disc degeneration, osteophyte formation, and facet joint dysfunction. It commonly manifests with chronic neck pain and stiffness, and in more advanced cases, may present with neurological symptoms like radiculopathy, paraesthesia, and vertigo due to nerve root or spinal cord involvement. The condition is most frequently observed in middle-aged and older adults and can substantially impair functional ability and overall quality of life.

Although conventional treatment modalities—such as NSAIDs, physical therapy, and surgical interventions—are commonly employed, they often yield only short-term relief and may be associated with undesirable side effects. Consequently, there is increasing interest in exploring complementary and alternative therapeutic options, including homoeopathy, as potentially safer and more effective long-term strategies for managing cervical spondylosis.

Actaea racemosa (commonly known as Black Cohosh) is rich in a variety of bioactive compounds, notably **triterpene glycosides**, which are considered the primary contributors to its pharmacological effects. Key triterpene glycosides identified in *A. racemosa* include **actein**, **27-deoxyactein**, and **cimiracemoside A–H**. These compounds have demonstrated significant **anti-inflammatory and analgesic properties**, which are particularly relevant in the management of **cervical spondylosis**—a degenerative condition characterized by chronic inflammation and pain in the cervical spine[6].

The anti-inflammatory action of triterpene glycosides is attributed to their ability to inhibit pro-inflammatory cytokines. For instance, **cimiracemate A** has been reported to suppress

lipopolysaccharide-induced **tumor necrosis factor-alpha (TNF-α)** production in human blood macrophages[7]. This suppression of TNF-α is crucial, as elevated levels of this cytokine are associated with inflammation and pain in degenerative spinal conditions[7].

Additionally, *A. racemosa* contains **phenolic compounds** such as **caffeic acid**, **ferulic acid**, and **isoferulic acid**, which possess **antioxidant properties**. These antioxidants help mitigate **oxidative stress**, a contributing factor in the pathophysiology of cervical spondylosis. By reducing oxidative damage, these compounds may aid in slowing the degenerative processes affecting the cervical spine[8].

Furthermore, certain triterpene glycosides from *A. racemosa* have been found to modulate neurotransmitter systems. For example, **23-O-acetylshengmanol-3-O-β-D-xylopyranoside** has been shown to modulate **GABA_A receptor** activity, leading to **sedative and muscle relaxant effects**[9]. Such neuromodulatory actions can contribute to the alleviation of **muscle tension and pain** associated with cervical spondylosis[9].

Homoeopathic Materia Medica describes *Actaea racemosa* as a remedy acting prominently on the cerebrospinal and muscular systems, particularly effective in conditions involving neck stiffness, muscular tension, and nerve irritation.

Few indications of Actaea racemosa as given in the homoeopathic materia medica are:

Excessive muscular soreness, after dancing, skating, or other violent muscular exertion. Rheumatic pains in muscles of neck and back; feel stiff, lame, contracted; spine sensitive, from using arms in sewing, type writing, piano playing. Rheumatism affecting the bellies of the muscles; pains stitching, cramping.[10]

Cramping in the muscles of the neck on moving the head, first in the left, afterwards in the right side.[11]

Homoeopathy, a system of complementary medicine, has been utilized in managing musculoskeletal disorders, including cervical spondylosis. Several studies have investigated its efficacy:

- A multicentric, double-blind, randomized placebo-controlled trial conducted by Gupta et al. evaluated the effectiveness of predefined homeopathic medicines in cervical spondylosis pain management. The study reported a 56.18% improvement in pain in

the homoeopathy group compared to 46.45% in the placebo group, suggesting a positive trend favoring homeopathic intervention, although the mean improvement between groups was not statistically significant. Commonly prescribed remedies included *Rhus toxicodendron*, *Calcarea carbonica*, *Kalmia latifolia*, and *Paris quadrifolia*.[12]

- Another randomized, double-blind, placebo-controlled trial assessed individualized homoeopathic medicines (IHMs) in cervical spondylosis treatment. While overall improvements were higher in the IHM group, statistically significant differences emerged after two months for specific symptoms like pain ($p < 0.001$), stiffness ($p = 0.024$), and weakness ($p = 0.003$). *Sulphur* was the most frequently prescribed remedy.[13]
- A case report by Sinha demonstrated the effectiveness of individualized homoeopathic treatment in a 39-year-old female patient with cervical spondylosis. The patient showed significant improvement in symptoms following the administration of *Silicea terra*, highlighting the potential of personalized homoeopathic approaches.[14]

2.MATERIAL AND METHODS:

2.1 Study design:

Retrospective study of individuals with cervical spondylosis attending the OPD of JIMS homoeopathic medical college and hospital.

2.2 Study setting:

Cases are taken from the OPD of JIMS homoeopathic medical college and hospital.

2.3 Study population:

Individuals who were suffering from neck pain and attended the OPD of JIMS homoeopathic medical college and hospital.

2.4 Study period:

The study was carried out for a period of 4 months from feb 2025 to may 2025.

2.5 Data collection process:

After receiving the necessary consent from the institutional authorities, data was gathered by reviewing the case record files of the patients who attended the opd with the complaints of cervical spondylosis.

3.RESULTS:

The demographic and socio-economic profile of the participants is summarized in the table 1.

A majority (60%) were aged between 30 and 50 years, followed by 30% above 50 years and 10% below 30 years. Females comprised 70% of the sample, while males accounted for the remaining 30% of the sample.

Regarding socio-economic status, 76.66% belonged to the moderate group and 23.33% to the low group; no participants were classified as high socio-economic status. Occupation-wise, the most common category was homemakers (33.33%), followed by those in agriculture (23.33%), others (26.66%), daily wage labourers (10%), and housekeeping staff (6.66%).

Religiously, the majority were Hindus (83.33%), with Muslims comprising 16.66%. In terms of the duration of complaints, 46.66% reported symptoms lasting 1–5 years, 43.33% had symptoms for less than a year, and 10% had symptoms lasting for more than five years.

The table 2 outlines the symptomatic profile of the participants before and after treatment. Pain intensity, assessed using the Visual Analogue Scale (VAS), showed that prior to treatment, 90% of participants reported moderate to severe pain (VAS 6–10), while only 10% experienced mild pain (VAS 1–5). Post-treatment, a substantial reduction in pain was observed, with 83.33% reporting VAS scores of 1–5 and only 16.66% remaining in the higher pain range (VAS 6–10).

Mobility was restricted in 76.66% of participants before treatment; however, post-treatment assessment revealed improvement in 96.66%, with only one participant (3.33%) showing no change.

Vertigo was present in 6.66% of the sample, while 93.33% reported no such symptoms. Radiation of pain was noted in 70% of individuals, with the remaining 30% not experiencing radiating pain. Tingling sensations were reported by 36.66% of participants, whereas 63.33% were asymptomatic for this feature.

Regarding side affinity of pain, 53.33% experienced bilateral symptoms, 30% had right-sided pain, and 16.66% had left-sided pain. Stiffness was present in 13.33% of individuals, while the majority (86.33%) did not report stiffness.

These findings indicate significant symptomatic improvement following treatment, particularly in pain and mobility outcomes.

Table 1. Demographic and Socio-economic profile of the study participants

S. No.	CRITERIA		N	PERCENTAGE %
1	Age	Less than 30 years	3	10
		30 – 50 years	18	60
		More than 50 years	9	30
2	Gender	Male	9	30
		Female	21	70
3	Socio economic status	Low	7	23.33
		Moderate	23	76.66
		High	-	-
4	Occupation	Agriculture	7	23.33
		Daily wage labourer	3	10
		Homemaker	10	33.33
		House keeping staff	2	6.66
		Others	8	26.66
5	Religion	Hindu	25	83.33
		Muslim	5	16.66
		Christian	-	-
6	Duration of complaints	Less than 1 year	13	43.33
		1 – 5 years	14	46.66
		More than 5 years	3	10

Table 2. Symptomatic profile of the participants before and after treatment

S. No.	SYMPTOMS			N	PERCENTAGE %
1	Pain	VAS before Treatment	1 – 5	3	10
			6 – 10	27	90
		VAS after Treatment	1 – 5	25	83.33
			6 – 10	5	16.66
2	Mobility	Before Treatment	Restricted	23	76.66
			Not restricted	7	23.33
		After Treatment	Improved	29	96.66
			Not improved	1	3.33
3	Vertigo	Present		2	6.66
		Absent		28	93.33
4	Radiation of pain	Present		21	70
		Absent		9	30
5	Tingling	Present		11	36.66
		Absent		19	63.33
6	Side affinity of pain	Right		9	30
		Left		5	16.66
		Bilateral		16	53.33
7	Stiffness	Present		4	13.33
		Absent		26	86.33

STATISTICAL ANALYSIS:

1. Summary by Age Group

This graph shows the average Pain VAS scores before and after treatment and the reduction in pain for different age groups.

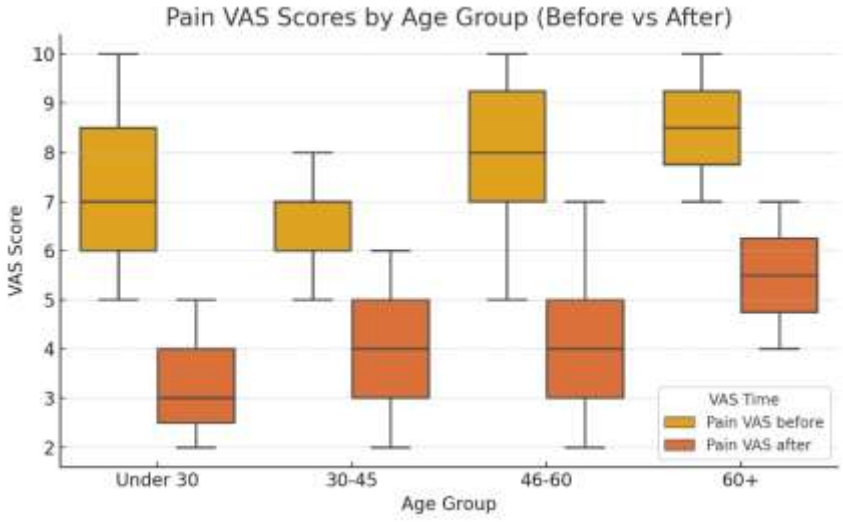

Fig.1. Pain VAS Scores by Age Group (Before vs After)

2. Summary by Gender

This graph shows the average Pain VAS scores before and after treatment and the reduction in pain for different genders.

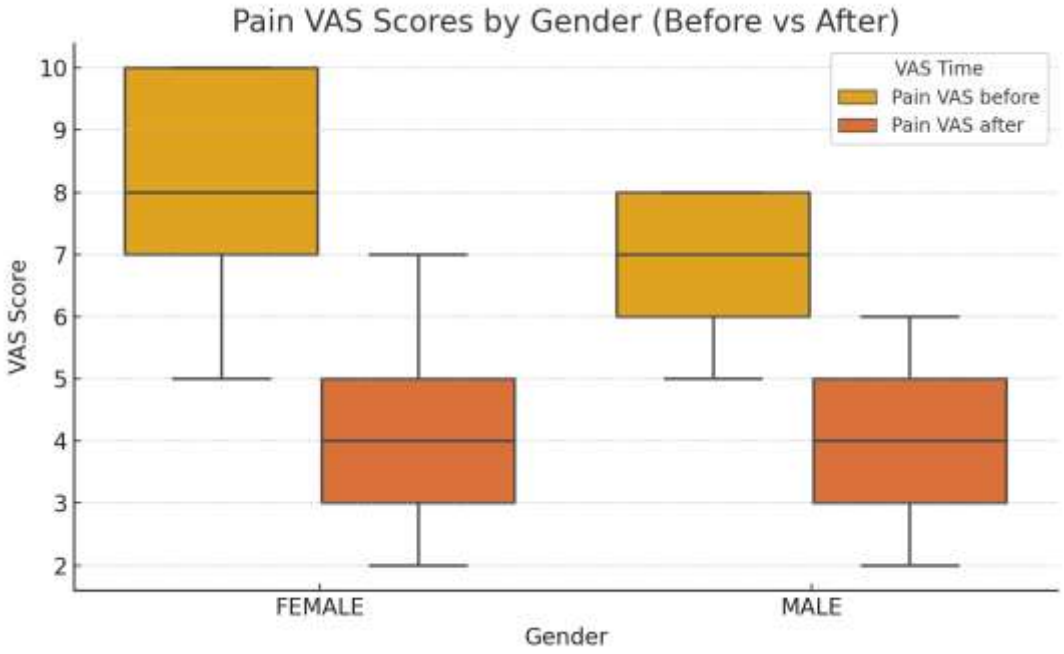

Fig.2. Pain VAS Scores by Gender (Before vs After)

3. Summary by Treatment Duration (Days)

This table shows the average Pain VAS scores before and after treatment and the reduction in pain for different treatment durations in days.

Table.3. Pain VAS Scores by Treatment Duration (Before vs After)

Treatment Duration (Days)	Pain VAS before	Pain VAS after	Pain Reduction
10	6.00	2.00	4.00
28	7.00	4.00	3.00
30	6.50	4.50	2.00
42	8.00	4.00	4.00
45	8.50	4.00	4.50
60	6.40	4.40	2.00
65	10.00	4.00	6.00
80	9.00	3.00	6.00
90	6.00	3.25	2.75
120	8.00	4.00	4.00
150	8.25	3.50	4.75
180	9.00	6.00	3.00
210	6.00	5.00	1.00
330	8.00	7.00	1.00
365	10.00	2.00	8.00
480	10.00	7.00	3.00

4. Summary by Medicine Potency

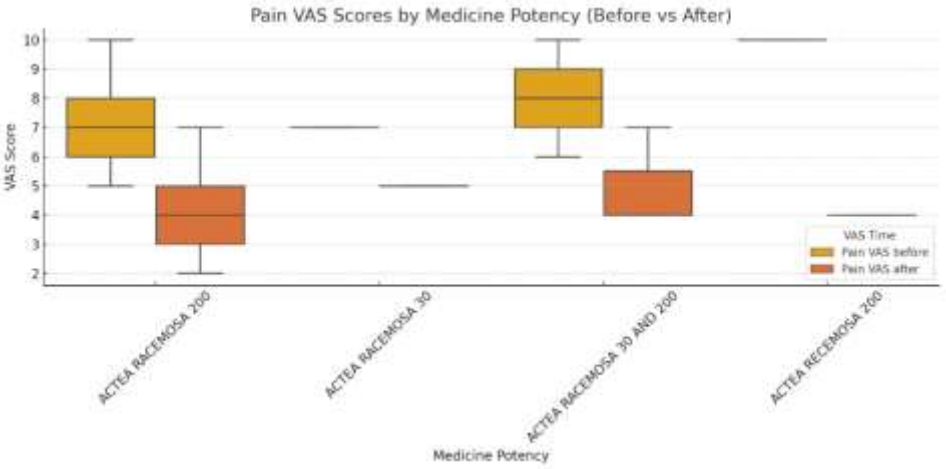

Fig.3. Pain VAS Scores by Medicine Potency (Before vs After)

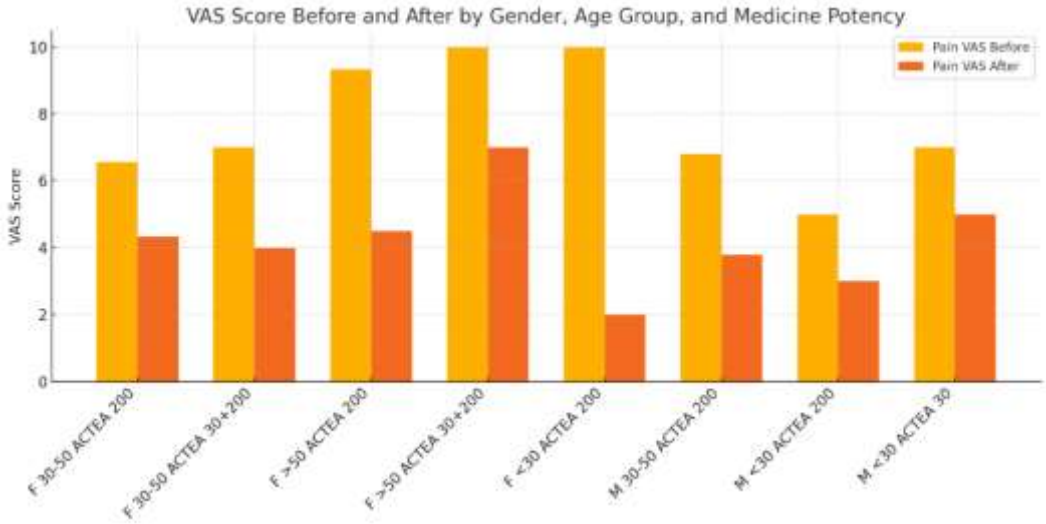

Fig.4. Pain VAS Scores by Gender, Age group and Medicine Potency (Before vs After)

4.DISCUSSION

The present study aimed to evaluate the efficacy of *Actaea racemosa* in the management of cervical spondylosis, with a particular focus on symptomatic relief in terms of pain, mobility, and associated neurological symptoms. The results demonstrated a significant therapeutic benefit following the administration of *Actaea racemosa* in 200C potency.

Pain intensity, assessed using the Visual Analogue Scale (VAS), showed a marked reduction post-treatment. Before intervention, 90% of the participants experienced moderate to severe pain (VAS 6–10). Following treatment with *Actaea racemosa* 200C, 83.33% of subjects reported a reduction to mild pain levels (VAS 1–5), indicating a notable shift in pain perception. This outcome reflects the medicine's analgesic and anti-inflammatory effects,

which are thought to stem from its bioactive constituents, such as triterpene glycosides, that influence inflammatory and neural pathways involved in pain processing.

Improvement in mobility was another key finding, with 96.66% of participants demonstrating enhanced or restored range of movement post-treatment. This suggests not only symptomatic relief but also functional recovery, which is crucial in the management of degenerative cervical conditions.

Additionally, neurological symptoms such as vertigo, radiation of pain, tingling, and stiffness were reduced. Tingling sensations, initially reported by 36.66% of participants, subsided substantially. Pain radiation, present in 70% of subjects, decreased following treatment, further supporting the medicine's efficacy in relieving nerve-root irritation commonly seen in cervical spondylosis. Vertigo was nearly eliminated, and stiffness—a symptom reported by a minority—was alleviated.

Bilateral pain was most prevalent (53.33%), with right- and left-sided pain comprising 30% and 16.66%, respectively. The widespread relief across all these patterns further underscores the broad therapeutic range of *Actaea racemosa* 200C in this clinical context.

The statistical analysis corroborated these clinical findings, showing consistent pain reduction across all age groups and both genders. Interestingly, younger participants and those with a shorter duration of illness showed relatively greater improvement. Female participants also exhibited slightly higher mean pain reduction compared to males, a difference that could be influenced by hormonal or psychosocial factors but requires further exploration.

The selection of the 200C potency in this study is noteworthy. The results suggest that this potency was well-suited for the chronic, degenerative nature of cervical spondylosis, providing a sustained therapeutic response without reported aggravations or adverse effects.

5.CONCLUSION:

In conclusion, *Actaea racemosa* 200C demonstrated significant efficacy in reducing pain, improving mobility, and alleviating associated symptoms in patients with cervical spondylosis. These findings are consistent with prior literature on the remedy's utility in musculoskeletal and neurological conditions. Nonetheless, larger-scale, randomized controlled studies with extended follow-up are recommended to further validate these outcomes and establish standardized treatment protocols.

6. ACKNOWLEDGEMENT:

We are thankful to the Director, Medical Superintendent and Principal of JIMS Homoeopathic Medical College and Hospital for their support. We are especially thankful to Dr. C.V Chandraja, Associate Professor of Research Methodology and Biostatistics. for her valuable guidance. Last but not the least, we are thankful to all the teaching and non teaching staff for their cooperation.

REFERENCES:

1. Belachew DA, Schaller B, Guta G. Cervical spondylosis: a literature review with attention to the African population. *Arch Med Sci.* 2007;4:316-21.
2. Alexander JT. Natural history and nonoperative management of cervical spondylosis. In: Menezes AH, Sonntag VKH, editors. *Principles of Spinal Surgery.* New York: McGraw-Hill; 1996. p. 547-57.
3. Lisha AF. The biomechanics of cervical spondylosis. *Adv Orthop.* 2012;2012:1-6.
4. Kelly JC, Groarke PJ, Butler JS, Poynton AR, O'Byrne JM. The natural history and clinical syndromes of degenerative cervical spondylosis. *Adv Orthop.* 2012;2012:1-5.
5. Young WF. Cervical spondylotic myelopathy: a common cause of spinal cord dysfunction in older persons. *Am Fam Physician.* 2000;62(5):1064-70.
6. Upton R, Graff A, Jolliffe G, et al. *Black Cohosh Rhizome (Actaea racemosa): Analytical, Quality Control, and Therapeutic Monograph.* American Herbal Pharmacopoeia; 2002.
7. Einbond LS, Shimizu M, Maewal A, et al. Aqueous extracts of *Cimicifuga racemosa* and phenolcarboxylic constituents inhibit production of proinflammatory cytokines in LPS-stimulated human whole blood. *Phytomedicine.* 2009;16(5):485-90. doi:10.1016/j.phymed.2008.12.016.
8. Powell SL, Godecke T, Galambosi B. Phytochemistry and pharmacology of *Actaea racemosa. Planta Med.* 2008;74(6):667-75. doi:10.1055/s-2008-1074511.
9. Deng S, Chen SN, Yao P, et al. Neuroprotective and CNS effects of black cohosh extracts and single constituents on GABA-A receptor modulation. *J Agric Food Chem.* 2008;56(24):11718-26. doi:10.1021/jf802220v.
10. Allen HC. *Keynotes and Characteristics With Comparisons of Some of the Leading*

Remedies of the Materia Medica.

11. Allen TF. *The Encyclopedia of Pure Materia Medica.*
12. Gupta J, Bawaskar R, Rao P, et al. Homoeopathic therapy in cervical spondylosis pain management: a randomised, double-blind, placebo-controlled trial. *Indian J Res Homoeopathy.* 2020;14(4):242-50. doi:10.4103/ijrh.ijrh_70_19.
13. Prakash A, Bhowmik NC, Singh S, et al. Efficacy of individualized homeopathic medicines in the treatment of cervical spondylosis: a double-blind, randomized, placebo-controlled trial. *Homeopathy.* 2022;111(1):22-30. doi:10.1055/s-0041-1731383.
14. Sinha S. Cervical spondylosis managed with homoeopathy: a case report. *Homeopathy.* 2022;111(2):143-6. doi:10.1055/s-0042-1742565.