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# **ORIGINAL ARTICLE**

# Navigating The Effectiveness of Homoeopathic Individualization in Cervical Spondylosis: A Prospective Interventional Study

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#### **ABSTRACT**

Cervical Spondylosis is the degenerative condition of the cervical vertebra & intervertebral discs due to ageing, trauma or rheumatoid disease. "Spondylo" is a Greek term meaning vertebra & "Spondylosis" generally means changes in vertebral joints. The management of cervical spondylosis is very much effective with homoeopathic medicine. The project site of this research study was Jawaharlal Nehru Homoeopathic Medical College and Hospital, Vadodara, Gujarat. The research design was prospective interventional study. The sampling technique was non-randomised convenient sampling. The samples were 40 obtained from Jawaharlal Nehru Homoeopathic Medical College and Hospital. The study was clinically assessed by neck Disability index scale. The data analysis was planned on the basis of objective of the study using statistical analysis in consideration with hypothesis of the research study.

**KEY-WORDS:** Cervical Spondylosis, Prospective Interventional Study, Neck Pain, Neck Disability Index Scale, Homoeopathic Individualization

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## INTRODUCTION

Cervical spondylosis is a degenerative condition of the cervical spine and it is found almost universally in persons over 50 years of age. It occurs early in persons pursuing 'white collar jobs' or the those susceptible to neck strain due to keeping the neck constantly in one position while reading, writing etc.

According to The Global Burden of Disease 2015 Study report suggest that, "low back and neck pain as the leading cause of years lived with disability (YLD) and fourth leading cause of disability adjusted life years. (DALYs)" [2]

According to WHO (World Health Organisation), There are ICD-11(International classification of Disease) has listed spondylosis under the code ME84.0as per follow:

ME84.0 : Cervical spondylosis

FA8Z : Degenerative condition of spine -unspecified

FA80 : Cervical disc degeneration

FA81 : Spondylosis

8B93.8 : Radiculopathy due to spondylosis

FA8Y : Other specified degenerative condition of spine

MG30.02: Chronic Primary Musculoskeletal Pain

MG30.3 : Chronic Secondary Musculoskeletal Pain [3]

According to WHO estimates, 1 in 10 adult patients are diagnosed with chronic neck pain each year and 1 in 5 persons worldwide experience some form of pain at some point in their lives.[4]

The point prevalence of neck pain is between 0.4% and 41.5% in the general population, the 1-year incidence is between 4.8% and 79.5%, and the lifetime prevalence could reach 86.8%. The most commonly affected levels are C6-C7, followed by C5-C6.[5]

In cervical spondylosis, evaluation of the effect of biological factors such as ageing, gender and genetic factors on the progression of the neck pain and neck pain is the most prevalent musculoskeletal disorders, having an age-standardised prevalence rate of 27 per 1000 population in 2019.[6]

Cervical spondylosis is more prone to occur in persons pursuing white collar job and those who are susceptible to neck strain because of keeping the neck posture constantly in one position and working in a computer for a prolong hours.[7]

In differential diagnosis of cervical spondylosis, the following condition should be taken into account: pan coast tumour, carpal tunnel syndrome, spinal cord tumours tuberculosis of the spine, other causes of neck pain such as, tumours, infection, cervical disc prolapse.[1] In physical examination of cervical spondylosis, there are Spurling test, Hoffman's sign, Lhermitte's sign and Shoulder abduction relief sign.[8] Dr. Kent's view about Homoeopathic individualization, "The substitution of one remedy for another cannot be thought of, or entertained in homoeopathy." [9]

Master Hahnemann narrated individualization based on characteristic totality mentioned in aphorism: 153, Organon of medicine. According to aphorism:153, "To cure a natural disease the more striking, singular, uncommon and peculiar (characteristic) sign and symptoms of the case of the disease are chiefly and most solely to be kept in view." [10]

Dr. Richard Hughes indicated that "he final selection of a simillimum remedy should be based on individual similarity, and peculiar characteristics features, especially in those diseases that affect every subject in their way."[11]

## MATERIAL AND METHODS

The research study was conducted at after taking ethical approval from Jawaharlal Nehru homoeopathic medical college and hospital, Waghodia, Vadodara. The Study design was Prospective Interventional Study. The sample size was 40 cases. The sampling technique was non-randomised convenient sampling technique. The informed consent was taken from the participants and procedure of the study was explained.

**Null Hypothesis:** There is no significant effectiveness of Homoeopathic individualization to assess the patient in management of cervical spondylosis.

**Alternative Hypothesis:** There is a significant effectiveness of Homoeopathic individualization to assess the patient in management of cervical spondylosis.

# **Criteria for sample selection:**

# (A) Inclusion criteria:

- Samples collected on above 18 years of age and below 70 years of age.
- Diagnosis based on pre-diagnosed clinical presentation.

# (B) Exclusion criteria:

- Cases with malignant diseases and Trauma
- Cases complicated with systemic disorders.
- Life –threatening complications are excluded in this study.
- Pregnant and lactating women.

# Cervical Spondylosis Assessment Scale for study:

• Neck disability index scale (NDI SCALE)

This scale has been designed to give us information as to how your neck pain has affected your ability to manage in everyday life.

# STATISTICAL ANALYSIS

This study was conducted in 40 participants of different age-groups, gender and occupations. The research outcome of the study was measured by the Neck Disability Index Scale. T- test was used to determine effectiveness of the Homoeopathic individualization to assess the patient in management of cervical spondylosis.

## RESULT

This study showcases the discoveries and consequences obtained from  $40\ cases$ .

TABLE 1: DISTRIBUTION OF CASES ACCORDING TO GENDER

Gender	Cases	Percentage
Male	17	42.5%
Female	23	57.5%
Total	40	100%

Table 1 reveals the distribution of cervical spondylosis cases among a total of 40 instances. Within this dataset, it is observed that there are 17 cases specifically attributed to males, representing 42.5% of the total cases. On the contrary, when considering the gender distribution, it is evident that female contribute to 23 cases, which constitutes about 57.5% of the total case recorded.

TABLE 2: DISTRIBUTION OF CASES ACCORDING TO AGE GROUP

AGE	CASES	PERCENTAGE
18-24	01	2.5%
25-31	02	5.0%
32-38	06	15%
39-45	09	22.5%
46-52	17	42.5%
53-59	04	10%
60-66	01	2.5%
67-73	00	00
Total	40	100%

According to the information presented in Table 2, the distribution of cervical spondylosis cases across distinct age brackets is evident. The largest proportion of cases falls within the age range of 46 to 52, accounting for 42.5% of the total. Subsequently, the age group of 39-45 displayed a notable presence, encompassing 22.5% of the cases. Furthermore, the age classification of 32-38 contributed to 15% of the cases. It is noteworthy that no cervical spondylosis cases were documented within the 67-73 age bracket. 4 cases (10%) were found in 53-59 years age group, 2 cases (5%) in 25-31 years age group. Both the 18-24 and 60-66 age categories displayed equivalent proportions of cases, each contributing 2.5% to the overall totally.

TABLE 3: DISTRIBUTION OF CASES ACCORDING TO AGE AND GENDER

Age	Ma	Male		Female		
Group	Cases	Percentage	Cases	Percentage	Cases	Percentage
18-24	01	5.8%	00	00	01	2.5%
25-31	01	5.8%	01	4.3%	02	5%
32-38	02	11.7%	04	17.3%	06	15%
39-45	04	23.5%	05	21.7%	09	22.5%
46-52	06	35.2%	11	47.8%	17	42.5%
53-59	02	11.7%	02	8.6%	04	10%
60-66	01	5.8%	00	00	01	2.5%
67-73	00	00	00	00	00	00
TOTAL	17	100	23	100	40	100

According to the information in Table 3, the data pertaining to cervical spondylosis cases uncovers intriguing trends and disparities among various age groups and genders. In the age group of 18-24, there were a total of 1case, with males representing 1 case (5.8%). Similarly, in the 25-31 age bracket, there were 2 cases in total, with males accounting for 1case (5.8%) and females for 1 case (4.3%). The 32-38 age range saw a total of 6 cases, with males contributing 2 cases (11.7%) and females 4 cases (17.3%). For the age group 39-45, the total cases were 9, divided into 4 cases for males (23.5%) and 5 cases for females (21.7%). For the age group 46-52, the total cases were 17, divided into 6 cases for males (35.2%)

and 11 cases for females (47.8%). For the age group 53-59, the total cases were 4, divided into 2 cases for males (11.7%) and 2 cases for females (8.6%). In the 60-66 age category, there was a single case among males (5.8%), while no cases were reported among females. The 67-73 age groups had no reported cases for either gender.

TABLE 4: DISTRIBUTION OF CASES ACCORDING TO OCCUPATION

OCCUPATION	CASES	PERCENTAGE (%)
Housewife	11	27.5%
Tailor	04	10%
Student	03	7.5%
Teacher	05	12.5%
Labour worker	02	5%
Retired Person	02	5%
Clerk	01	2.5%
Farmer	02	5%
Engineer	06	15%
Business Person	04	10%

As shown in table 4; distribution of cases according to occupation. Out of 40 cases, 11 cases (27.5%) are of housewives, 04 cases (10%) are of tailors, 3 cases (7.5%) are of students, 5 cases (12.5%) are of teachers and 2 cases (5%) each of labour workers, retired persons and farmers, 1 Case (2.5%) of clerk, 6 cases (15%) of engineers and 4 cases (10%) of business persons.

TABLE 5: DISTRIBUTION OF CASES ACCORDING TO RESIDENCE

Residence	Cases	Percentage
Urban	16	40%
Rural	24	60%
Total	40	100%

As shown in table 5, maximum cases of cervical spondylosis disease were found from Urban locality i.e. 24 cases (60%) and 16 cases were found from Rural locality i.e. 40%.

TABLE 6: DISTRIBUTION OF CASES ACCORDING TO REMEDY PRESCRIBED

Medicine	Cases of Cervical Spondylosis	Marked	Moderate	Mild
		Improvement	Improvement	Improve-ment
NUX-V	3	2	1	-
BRY	4	2	1	1
LYC	2	2	-	-
NAT-M	1	1	-	-
CAL-CARB	2	2	-	-
CIMIC	2	2	-	-
CAUST	3	1	1	1
HYPER	2	2	-	-
SIL	3	2	1	-
SULPH	1	-	-	1
CALC-P	1	-	1	-
COCCL	3	3	-	-
BELL-P	1	1	-	-
RHUS-T	2	2	-	-
RUTA	3	1	2	-
RHOD	2	1	-	1
AGAR	1	-	1	-
ZIN	1	1	-	-
KALM	2	1	1	-
GUAI	1	1	-	-
TOTAL	40	27	9	4

According to table 6, the effectiveness of various medicines in its treatment reveals interesting findings. Among the medicines listed, Bryonia alba has been prescribed for maximum cases i.e. 4 cases. Out of

those 4 cases where Bryonia alba has been prescribed, 2 cases show marked improvement, 1 case results into moderate improvement and another 1 case results into mild improvement. 3 Cases of Cocc. shows marked improvement.

Nux-v and Silicea has been prescribed in 3 cases each, from which both medicines show marked improvement in 2 cases and each medicine gives mild improvement in 1 case. Causticum and Ruta has been prescribed in 3 cases each, from which both medicine shows marked improvement in 1 case, Ruta gives moderate improvement in 1 case and Causticum gives moderate improvement in 2 cases.

Lycopodium, Cal-carb, Cimicifuga, Hypericum and Rhus-tox has been prescribed in 2 cases and each medicine gives marked improvement in 2 cases. Nat-mur, Bell-p, Zin, Guaiacum has been prescribed in 1 case each, from which every medicine shows marked improvement in 1 case. Sulphur, Rhod, Causticum and Bryonia demonstrated mild improvement in one case each.

,	ISTRIBUTION OF CASES ACCORDING TO RESULT OB				
	Result	Cases	Percentage (%)		
	Marked improvement	27	67.5%		
	Moderate improvement	9	22.5%		
	Mild improved	4	10%		
	Total	40	100%		

TABLE 7: DISTRIBUTION OF CASES ACCORDING TO RESULT OBTAINED

Table 7 states that out of the 40 cases examined, a significant marked improvement was observed in 27 cases, accounting for 67.5% of the total. Additionally, 9 cases (22.5%) demonstrated a moderate improvement, while 4 cases (10%) demonstrated mild improvement. These findings provide valuable insights into the effectiveness of the treatment approach in addressing the symptoms of the condition. The study underscores the importance of considering individual responses and tuiloring treatment plans accordingly to optimize patient outcomes.

## DISCUSSION

In this research study, the objective is to highlight several noteworthy observations and key points for analysis based on study of 40 cases.

The table 1 highlights the distribution of cases by gender, providing insights into the gender-based distribution within the sample.

According to the data presented in Table 2, the distribution of cervical spondylosis cases among various age groups were analyzed. The highest proportion of cases was observed in the age group of 46-52, representing 42.5% of the total cases. Following closely behind was the age group of 39- 45, accounting for 22.5% of the cases.

In Table 3, The findings underscore the relationship between age, gender, and the occurrence of cervical spondylosis within the studied population.

Table 4 provides distribution of cases according to occupation. Table 5 presents the distribution of cases according to residence.

The finding from table 6 highlight the effectiveness of various medicines in the treatment of cervical spondylosis. Table 7 presents the results of examining 40 cases, highlighting the effectiveness of the treatment approach in addressing the improvement criteria by result of the study.

# **CONCLUSION**

This work has been an attempt to discover the effectiveness of Homoeopathic individualization to assess the patient in management of cervical spondylosis. The objective of this study was to clinically assess treatment outcome of cervical spondylosis using neck disability index scale and to know the effectiveness of Homoeopathic Individualization in treatment of cervical spondylosis. Placebo-controlled study (single-blind, double-blind) can be used to conduct a comparative study for further research study.

## CONFLICT OF INTEREST

The authors declare that there is no any conflict of interest.

# ETHICAL STATEMENT

As the study conducted on human approval from Jawaharlal Nehru Homoeopathic Medical College & Hospital institutional ethics committee for human research was obtained before commencement of the

study. This study is registered in Clinical Trials registry-India (CTRI). The CTRI number of this study is CTRI/2023/09/057285.

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