



"ROLE OF CONSTITUTIONAL PRESCRIBING IN CASES OF OSTEOARTHRITIS IN THE MIDDLE AGE GROUP OF 40 TO 60 YEARS OF BOTH THE SEX"

Dr. Laishram Bhagat Singh^{1*}, Dr. Arvind D Mahajan², Dr. Sushma S Manhas³

1. Post Graduate Scholar, Department of Homoeopathic Philosophy and Organon of Medicine, Bharati Vidyapeeth (Deemed to be University) Homoeopathic Medical College and Hospital, Pune-Satara Road, India – 411043. Email id- bhagatlaishram21@gmail.com
2. Professor, Department of Homoeopathic Philosophy and Organon of Medicine, Bharati Vidyapeeth (Deemed to be University) Homoeopathic Medical College and Hospital, Pune-Satara Road, India – 411043. Email id- dr.admahajan@gmail.com
3. Professor, Department of Homoeopathic Philosophy and Organon of Medicine, Bharati Vidyapeeth (Deemed to be University) Homoeopathic Medical College and Hospital, Pune-Satara Road, India – 411043. Email id- Sushma.Manhas@bharatividyaapeeth.edu

ABSTRACT

Background- In Homoeopathy constitutional prescribing is a method to identify the constitution of an individual and treating the patient as a whole irrespective of names of the diseases and organs affected. It is mainly based on the totality of all mental and physical reactions.

Aim- To study the role of constitutional prescribing in cases of osteoarthritis in the middle age group of 40 to 60 years of both the sex.

Methods- Total 30 patients of already and newly diagnosed cases of osteoarthritis in the middle age group of 40-60 years of both sexes were selected. Medicines were prescribed after proper case study and repertorization with the help of synthesis repertory using the RADAR software. Response to the treatment was determined by using FIHOA scale and WOMAC INDEX scale before and after treatment score.

Result- Outcome was assessed by comparing before and after treatment score. FIHOA (Functional Index of Hand Osteoarthritis) scale was used for Hand Osteoarthritis and WOMAC INDEX scale for Knee Osteoarthritis. Before treatment osteoarthritis index score was 68.52 ± 7.34 and after treatment osteoarthritis index score reduced to 36.10 ± 5.90 . The mean reduction in Osteoarthritis Index score after intervention was 32.42 ± 4.73 . To check the effectiveness of treatment paired t-test was used and statistical value is 37.52 and p-value (0.000) is very small, it suggests that the study of Constitutional prescribing in cases of Osteoarthritis in the middle age group of 40 to 60 years of both the sex is useful.

Conclusion- The study suggested that Homoeopathic Constitutional Prescribing is effective and has an important role in treating Osteoarthritis in the middle age group of 40-60 years of both the sex.

Keywords- Constitutional Prescribing, Osteoarthritis, Homoeopathy, FIHOA, WOMAC INDEX.

DOI Number: 10.48047/nq.2022.20.22.NQ10031

NeuroQuantology2022;20(22): 434-447

INTRODUCTION

Constitutional diagnosis means the identification of the constitution of an individual. It covers the level of susceptibility, the tendencies, the behavior patterns and the underlying miasms. So, constitutional remedy is used as preventive, curative and prophylaxis^[3]. Homeopathic system of Medicine, is the practice of medicine

that embraces a holistic, natural approach to the treatment of the sick^[8]. Master Samuel Hahnemann has explained regarding chronic diseases in aphorism number 78-81 in Organon of Medicine 6th edition. The term "CONSTITUTION" is derived from the Latin word "CONSTITUERE" which means to set up, establish or make up, to appoint to give being to. Dr.



Hahnemann gives a fair importance of the constitution in aphorism 5 of 6th edition of organon of medicine. In the German text, Dr. Hahnemann used the term "beschaffenheit" when translated to English as 'Constitution'. In 6th edition of Organon of medicine Hahnemann explains about constitution and is related in aphorisms 5, 102, 117, 138 [6]. According to STUART CLOSE, The Constitution is described as the sum of genetic characteristics impacted more or less by the environment, which affects an individual's effective or unsuccessful response to environment stress [2]. Dr. Kent says "The perceptible ailment that follows a disorder in the man's vital power is called physical constitution [10]". According to Philip M. Bailey, Constitutional prescribing means selecting the remedy which covers the totality of the patient's symptoms (both physical and mental) at a given time [1]. When it comes to constitution, Dr. M.L Dhawale says that everyone has a unique characteristic that gives them their personality, which is partly affected by genes and environmental factors throughout their lives [4].

Osteoarthritis (OA):

The most prevalent type of arthritis and a leading cause of pain and impairment. It is marked by articular cartilage loss, subchondral osteosclerosis, osteophyte production at the joint edge, and joint contour remodeling with expansion of afflicted joints [7].

Most frequently involves the joints that bear most of the weight, like the knees or hips and also spine and the joints of hand and fingers. Osteoarthritis refers to a clinical syndrome in the midst of pain of joints in a very varying degrees and functional limitation which reduces the standard of life [11].

Osteoarthritis is an important cause of disability and the second most common musculoskeletal problem in the world (30%) after back pain (50%). Prevalence of OA is 5.8% reported in rural India. Prevalence of knee OA is high in Indians as compared to western ethnicities [9]. The prevalence rises progressively with age and it has been estimated that 45% of all people develop

knee OA and 25% hip OA at some point during life. There is major ethnic difference in susceptibility, the prevalence of hip OA is lower in Africa, China, Japan and the Indian subcontinent than in European countries and that of knee OA is higher [7]. The prevalence of OA rises strikingly with age, being uncommon in adults aged below <40 and highly prevalent in those aged >60. It is commonly found in women than in men [5].

Risk Factor:

Systemic factors affecting joint vulnerability-

Increased age

Female gender

Racial/ethnic factors

Genetic susceptibility

Nutritional factors

Intrinsic joint vulnerabilities-

Previous damage

Bridging muscle weakness

Malalignment

Proprioceptive deficiencies

Use factors acting on joints-

Obesity

Injurious physical activities [5].

Pathophysiology:

OA is a complex disorder with both genetic and environmental components. In most cases the inheritance is polygenic and mediated by several genetic variants which are caused by mutations in the genes that encode components of cartilage matrix. Biochemical factors play an important role related to certain occupations, such as farmers (hip OA), miners (knee OA) and elite or professional athletes (knee and ankle OA). It has been speculated that the higher prevalence of knee OA in the Indian subcontinent and East Asia might be accounted for by squatting. Lower rates of OA have been observed in women who use hormone replacement therapy (HRT) and women who receive aromatase inhibitor therapy for breast cancer often experience a flare in symptoms of OA. Degeneration of articular cartilage is the defining feature of OA, which is also



accompanied by abnormalities in subchondral bone that becomes sclerotic and the site of subchondral cysts. At the joint margin fibrocartilage is produce which under goes endochondral ossification in order to form osteophytes. Bone remodeling and cartilage thinning slowly alter the shape of the OA joint, increasing its surface area^[7].

Clinical Signs:

Pain
Restricted movement
Coarse crepitus
Bony swelling around joint margins
Deformity, usually without instability
Muscle weakness and wasting
Mild or absent synovitis^[7].

METHODS:

Study design:

It is a non-randomized, single blind clinical study.

Study duration:

The study was done for 18 months. The patients who continued the treatment protocol were considered for final analysis of comparisons.

Study settings:

The clinical study was carried out from the outpatient of Bharati Vidyapeeth Homoeopathic Hospital, Pune.

Sample size:

35 cases (5 cases dropped out)

Statistical Method:

The data was analysed by using paired t-test. Data were expressed in n(%), mean ± standard deviation. Statistical significance was considered at P<0.05.

CRITERIA OF ASSESSMENT:

Assessment was done using FIHOA(Functional Index of Hand Osteoarthritis)scale for Hand OA and WOMAC INDEX scale for knee OA. It was done by comparing the scale outcome of the patient from first visit and after intervention.

ETHICAL STATEMENT:

The institutional ethical committee of BVDUHMC, Pune had approved the research clinical study. Patients were explained about the study through informed consent form and was duly documented.

OUTCOME ASSESSMENT:

SAMPLING PROCEDURE:

Minimum of 30 cases with 5 follow ups(as per the case design) taken from the OPD of Bharati Vidyapeeth Homoeopathic Hospital.

SELECTION OF REMEDY:

After careful and detail case study well selected remedy was prescribed on the basis of individual's constitution. The remedy was administered in various potencies.

OUTCOME MEASURES:

The primary outcome measure is the score of the scales (FIHOA & WOMAC INDEX) used after the period of study. The scores were compared with the initial value and the difference was analysed by using student paired t-test statistically and this helps to establish the changes observed before and after treatment were significant or not.



DATA ANALYSIS AND INTERPRETATION

Table: Distribution of patients according to Age.

Age	<i>f</i>	%
40 - 50 years	5	16.67%
50 – 55 years	12	40.00%
55 – 60 years	13	43.33%

Table: Distribution of patients according to gender

Gender	<i>f</i>	%
Male	22	73.33%
Female	8	26.67%

Table: Distribution of patients according to occupation.

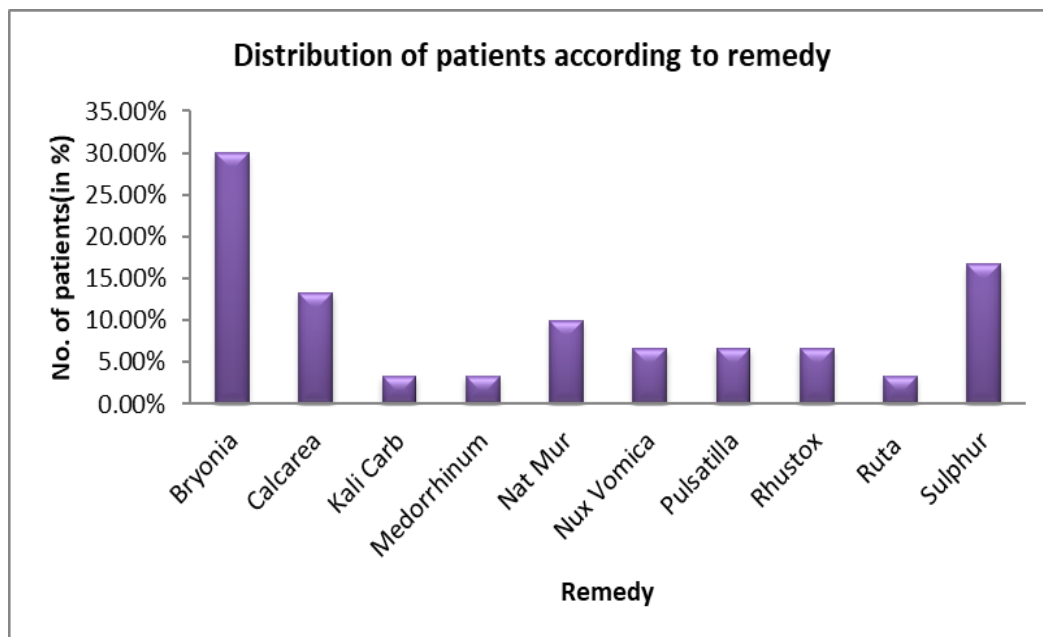
Occupation	<i>f</i>	%
Business	2	6.67%
Housewife	8	26.67%
Security	6	20.00%
Shopkeeper	7	23.33%
Teacher/Traffic Police	2	6.67%
Worker	5	16.67%



Table: Distribution of patient according to diagnosis.

Diagnosis	<i>f</i>	%
OA Left Hand	7	23.33%
OA Right Hand	10	33.33%
OA Right Knee	7	23.33%
OA Left Knee	6	20.00%

Fig: Distribution of patient according to remedy.



WOMAC Index; Minimum score is 0 and maximum score is 96.

FIHOA Index; Minimum score is 0 and maximum score is 30.

For further analysis we will make both scales of equal ranges (0 to 100). After change of scale new index values will be between 0 and 100.

So,

$$\text{Osteoarthritis Index} = \frac{\text{old index value} \times 100}{\text{Maximum value}} \dots \dots \dots \text{old index value} = \text{WOMAC Index or FIHOA Index}$$

Table: Scaling criteria.

Intensity	Osteoarthritis Index(0 to 100)
No	0
Mild	1 to 40
Moderate	40 to 60
Severe	60 to 80
Extremely severe	80 to 100

Table: Improvement criteria.

Improvement	Not expected improvement	Mild improvement	Moderate improvement	Marked improvement
Osteoarthritis index value	≤ 0	1 to 25	25 to 35	≥ 35

Table: Distribution of patients according to the intensity of Osteoarthritis of patients measured by Osteoarthritis index before and after treatment.

Severity	Before treatment		After treatment	
	f	%	f	%
Mild	0	0.00%	23	76.67%
Moderate	4	13.33%	7	23.33%



Severe	24	80.00%	0	0.00%
Extremely severe	2	6.67%	0	0.00%

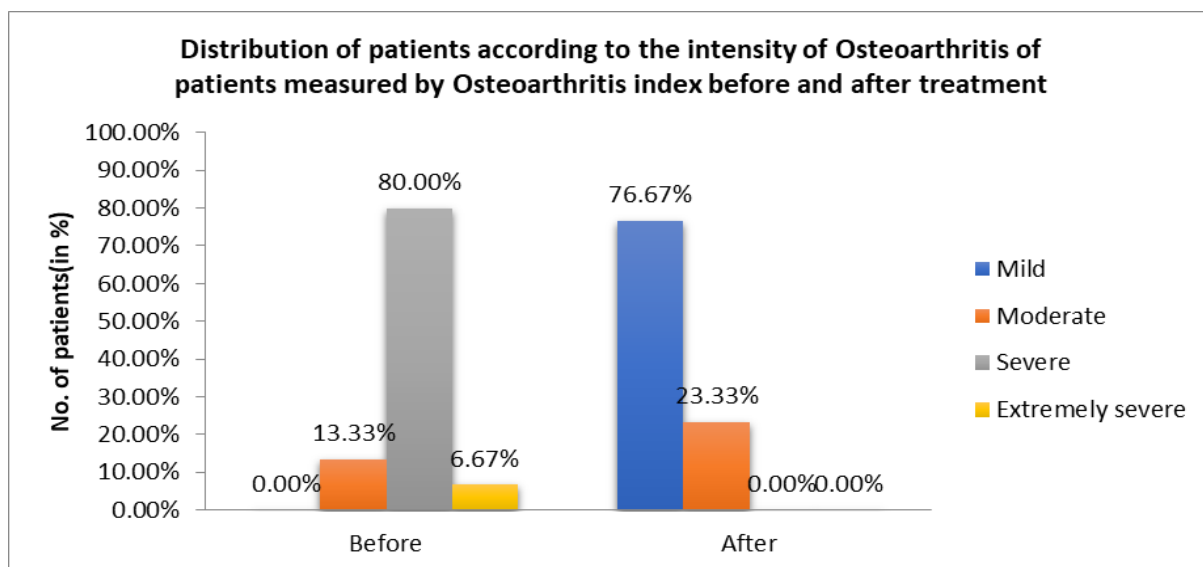


Table: Descriptive statistics of Osteoarthritis Index score before and after intervention.

Osteoarthritis Index	Mean ± SD	T-value	p-value	Decision
Before treatment	68.52 ± 7.34	37.52	0.000**	Reject H ₀
After treatment	36.10 ± 5.90			
Difference	32.42 ± 4.73	Difference is Highly Significant		

Test used: Paired t-test, **: Highly Significant Difference, T-value: Test Statistic value

Fig: Average OA index value before & after treatment.



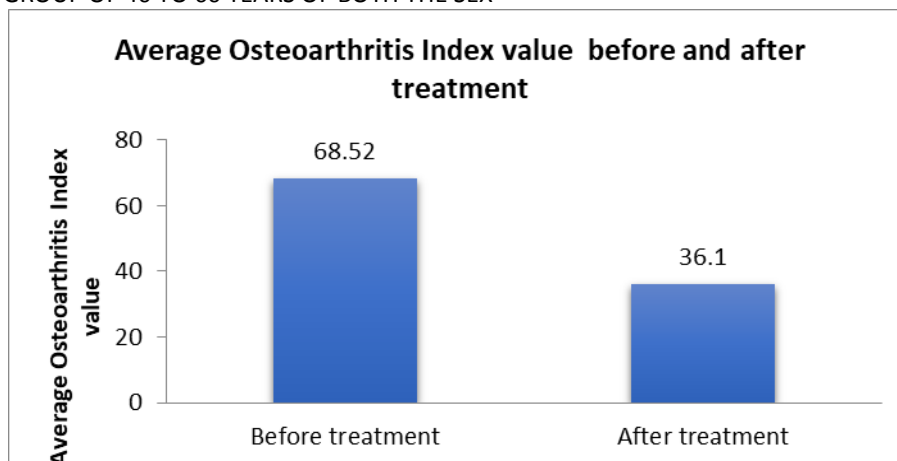


Table: Distribution of patients according to the improvement in condition of Osteoarthritis after treatment.

Improvement in the patients	<i>f</i>	%
Not expected improvement	0	0.00%
Mild improvement	6	20.00%
Moderate improvement	18	60.00%
Marked improvement	6	20.00%

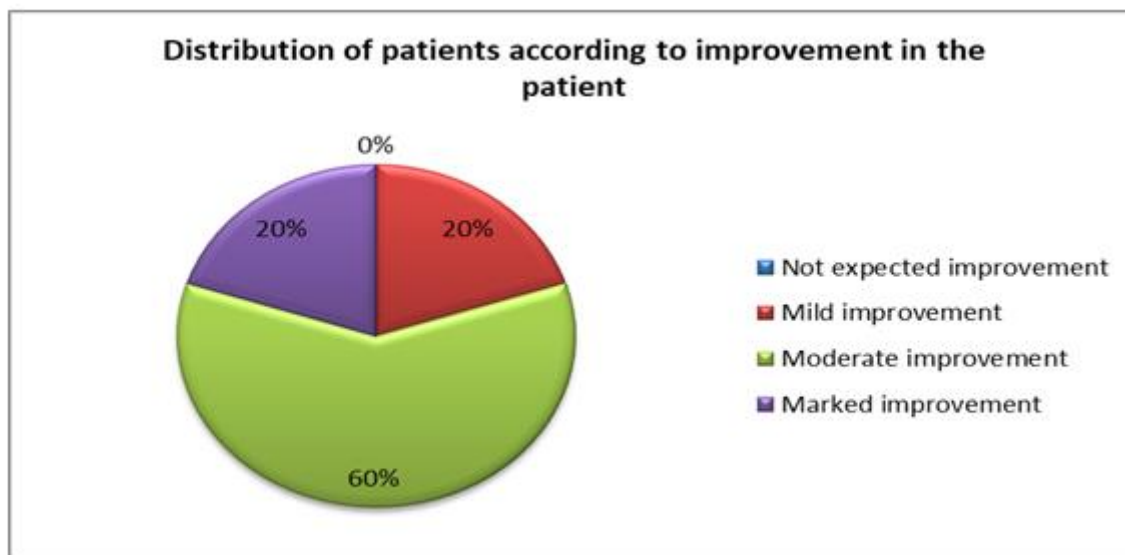


Fig: Distribution of patients according to improvement in the patient.

DISCUSSION:

After getting the scores of before and after treatment of patient it help us to analyzed statistically in the form of chart, graph etc. In



homoeopathy constitutional diagnosis is the identification of the constitution of an individual and treating the man as a whole. In this study we found that 17 cases OA hand and 13 cases OA knee. According to the occupation wise distribution it is found more in the female housewife (26.67%) and in the age class of 55-60 years (43.33%) but according to gender wise distribution males (73.33%) are more affected. The most commonly used medicine in this study are Bryonia, Sulphur, Calcarea Carbonica and Natrium Mur. Distribution of patients according to the diagnosis - OA left hand 7 patients (23.33%), OA right hand 10 patients (33.33%), OA right knee 7 patients (23.33%), OA left knee 6 patients (20%). However, since it is a small sample study over a short period of time, further research based on larger sample size with longer duration of the study needs to be done.

RESULTS:

Total 30 patients (n=30) were selected in the middle age group of 40 to 60 years of both the sex. According to the intensity of the symptoms 2 patients (6.67%) were extremely severe, 24 patients (80%) were severe and 4 patients (13.33%) were moderate. The highest percentage of patients belong to the age class of 55 to 60 years (43.33%) and the lowest below 50 years (16.67%). To check the effectiveness of treatment paired t-test was used. Before treatment OA index score was 68.52 ± 7.34 and after treatment was 36.10 ± 5.90 . The mean reduction in OA index score was 32.42 ± 4.73 . Test static value is 37.52 and p value (0.000) which is very small.

CONCLUSION:

Homoeopathic constitutional prescribing has a significant role in treating osteoarthritis because after the treatment no one had severe or extremely severe symptoms. After the treatment 20% of patients had marked improvement, 60% had moderate improvement and 20% had mild improvement. The study shows that the role of constitutional prescribing in cases of osteoarthritis in the middle age group of 40-60 years of both sex is useful.

REFERENCE:

1. Bailey PM. Homeopathic Psychology: Personality Profiles of the Major Constitutional Remedies. First Indian edition, 2002.
2. Close S. The genius of homoeopathy: lectures and essays on homoeopathic philosophy. Indian Books and Periodical Publishers; 2010.
3. Constitution and Constitutional approaches in Homoeopathy / National Health Portal of India (nhp.gov.in)
4. Dr. Dhawale ML, Practice and Principles of Homoeopathy 3rd edition, 2004.
5. Fauci AS, Hauser SL, Jameson JL, Kasper DL, Loscalzo J, Longo DL. Harrison's Principles of Internal Medicine Volume 2, 20th edition, 2022, p 2624-2626.
6. Hahnemann S. Organon of Medicine. 6th edition. New Delhi, India: Indian Books and Periodical Publishers; 2010.



7. Hobson RP, Penman ID, Ralston SH,
Strachan M. Davidson's Principles and
Practice of Medicine 23rd edition.
Elsevier; 2018, p 1007.

8. <https://homeopathyusa.org/homeopathi-c-medicine.html>

9. Kamath S. API Textbook of Medicine
volume 1, 11th edition Association of
Physicians of India, 2019, p 501.

10. Kent JT. Lectures on homoeopathic
philosophy. Indian Books and Periodical
Publishers; 2003.

11. National Clinical Guideline Centre
(UK). Osteoarthritis: Care and
Management in Adults. London: National
Institute for Health and Care Excellence
(UK); 2014 Feb. PMID: 25340227



APPENDICES:

Appendix 1

WOMAC INDEX (MODIFIED – CRD PUNE VERSION)

STUDY JOINTS: RT KNEE LT KNEE BOTH

	NONE	MILD	MODERATE	SEVERE	SCORE
HOW MUCH PAIN DO YOU HAVE?					
1) IN walking on flat surface	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Going up or down stairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) At night while in bed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Sitting or lying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) Standing upright	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
HOW MUCH IS YOUR STIFFNESS?					
6) After first wakening in the morning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7) After sitting, lying or resting later in the day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8) Descending stairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9) Ascending stairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10) Standing up from a chair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



11) While standing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12) Bending to floor (to pick up object)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13) Walking on flat ground	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14) Getting in and out of autoRickshaw/Bus/Car	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15) Going shopping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16) On rising from bed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17) While lying on bed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18) While sitting on chair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19) Going on/off Indian Western	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20) Doing heavy domestic duties (moving heavy boxes, scrubbing floor, lifting shopping bags)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21) Doing light domestic duties (cleaning room/table cooking/dusting)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22) While sitting cross legged floor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23) Rising from cross legged position	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24) While squatting on floor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
OPTIONAL					
25) While kneeling on floor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26) Rising from kneeling position	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



27) Sit on the floor with legs folded sideways/stretched	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TOTAL					



FUNCTIONAL INDEX OF HAND OSTEOARTHRITIS (FIHOA)

Sr. no.	Question asked	Scoring			
		0	1	2	3
1	Are you able to turn a key in a lock?				
2	Are you able to cut meat with a knife?				
3	Are you able to cut cloth or paper with a pair of scissors?				
4	Are you able to lift a full bottle with the hand?				
5	Are you able to clench your fist?				
6	Are you able to tie a knot?				
7	For women: Are you able to sew? For men: Are you able to use a screwdriver?				
8	Are you able to fasten buttons? 9.10.				
9	Are you able to write for a long period of time?				
10	Would you accept a handshake without reluctance?				

0=possible without difficulty, 1=possible with slight difficulty, 2=possible with important difficulty, 3=impossible.

Total scores indicate hand function. Lower the scores, better the hand function^[1].

