



# “Effect of Homoeopathic treatment on Activity of Daily Living (ADL) in Knee Osteoarthritis: A prospective observational study”

## 1. Name - Dr Ratneshwar R. Dhanure -MD (Homoeopathy)

Prof & HOD Anatomy,

Designation-Vice principal,

Address- Mauli Homoeopathic College & Research Institute, Tondar-Udgir.

## 2. Dr. Nishikant Rushikesh Thape MD. ( Homoeo)

Professor and H.O.D. Dept. Of Anatomy

Gondia Homieopathic Medical College, Gondia.

## 3. Name - Dr Prashant N Bharbat

Qualification- MD ( Homoeo)

Dept. - Homoeopathic Materia Medica

Designation - Principal

Antar Bharti Homoeopathic Medical College and Hospital (Dabha) Nagpur 440023

### Abstract:

The most commonly affected osteoarthritis is knee joint. OA the 10th leading cause of nonfatal burden. To study the effect of Homoeopathic medicines in improving ADL by Reducing pain, Stiffness and Limiting the disease progress. The study is conducted as per Criteria and result were drawn. It can be concluded that Homoeopathic medicines are potential enough to improve the ADL of patients.

### Introduction

Osteoarthritis (OA) is a slow, progressive, degenerative disease affecting the articular cartilage of the joints and ultimately causing its destruction leading to disability.

The most commonly affected joint is knee.

**Epidemiology:**

OA the 10th leading cause of nonfatal burden. The prevalence increasing due to population ageing and related factors such as obesity.

As per UN by 2050 people aged over 60 will account for more than 20% of the worlds populations.

Of that 20%, a conservative estimate of 15% will have symptomatic OA, and 1/3 of these people will be severely disabled.

According to WHO 9.6% of men and 18.0 % of women aged over 60 have symptomatic osteoarthritis and 80 % of those have limitation in movement and 25% cannot perform daily activity of life.

India has a prevalence of 22% to 39% of the total population suffering from OA .

**Research Question:**

Is Homoeopathic medicine effective in improving ADL in Knee Osteoarthritis ?

**Hypothesis:**

Homoeopathic medicine is effective in improving ADL in Knee Osteoarthritis.

**Objective:**

To study the effect of Homoeopathic medicines in improving ADL by

1. Reducing pain,
2. Stiffness and
3. Limiting the disease progress.

**Materials and Method:**

**Study design: A prospective observational study**

**Location of Study:** Ratnesh Homeopathic clinic Latur.

**Duration of Study:** 3 years

**Sample size:** 143 Cases

**Sampling technique:** Consecutive Samples

**Data collection :** As per

Standard Case Record Format

The WOMAC OA Index LK3.1 (IK) survey form Numerical Rating Scale (NRS)

**Inclusion Criteria:**

1. Age 35 years and above
2. Patients diagnosed with OA clinically by two orthopedic physicians based on the symptoms of pain, stiffness, and swelling.
3. Patients presenting with crepitus, osteophytes, restricted range of motion (ROM), joint line tenderness, and deformity (varus/ valgus/ fixed flexion deformity) on clinical examination.

**Exclusion Criteria:**

1. The patients with raised levels of serum uric acid, positive rheumatoid factor, and C-reactive protein (CRP).
2. The Patients with clinical evidence of psoriatic arthritis.

Statistics:

Pair	Paired Samples	N	Mean	Std. Deviation	Std. Error Mean
	Age	131	54.62	10.07	0.88
Pair 1	Pain Before	131	10.50	3.39	0.30
	Pain After	131	5.48	2.67	0.23
Pair 2	Stiffness Before	131	4.55	1.57	0.14
	Stiffness After	131	2.18	1.16	0.10
Pair 3	ADL Before	131	35.85	9.42	0.82
	ADL After	131	19.08	8.86	0.77
Pair 4	NRS Before	131	6.34	1.30	0.11
	NRS After	131	3.77	1.08	0.09
Pair 5	ESR Before	131	29.93	9.78	0.86
	ESR After	131	25.65	7.64	0.67
Pair 6	S.uric acid Before	131	4.79	0.68	0.06
	S.uric acid After	131	4.61	0.60	0.05

Pair	Paired Differences	Descriptive Statistics of paired differences			95% CI of the Diff.		Paired Samples t test		
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t test value	df	p value
Pair 1	Pain (Before - After)	5.023	2.561	0.224	4.58	5.466	22.44	130	0.0001***
Pair 2	Stiffness (Before - After)	2.366	1.437	0.126	2.118	2.615	18.85	130	0.0001***
Pair 3	ADL (Before - After)	16.771	8.407	0.734	15.318	18.224	22.83	130	0.0001***
Pair 4	NRS (Before - After)	2.565	1.171	0.102	2.363	2.767	25.07	130	0.0001***
Pair 5	ESR (Before - After)	4.282	7.41	0.647	3.002	5.563	6.61	130	0.0001***

**Result:**

Individualized homoeopathic medicines prescribed as per law of similia improved

the mean ADL from 35.85 to 19.08 (p-.0.0001).

Mean pain on WOMAC Osteoarthritis Index survey form improved from 10.50 to 5.48 (p-0.0001).

The mean pain score on NRS improved from 6.34 to 3.77 (p-0.0001) and the mean morning stiffness also improved from 4.55 to 2.18 (p-0.0001).

**Discussion**

The literature was confirmed by observing the increased prevalence of the disease among females (82%) than males (18%).

Highest numbers of patients, i.e., 37% were found among the age group between 50 and 60 years, which is considered as the postmenopausal age of a female.

This correlates the incidence of the disease with menopause or impaired calcium metabolism.

34.35% of patients found to have condition of preobesity, 40.45% of patients found to belong to Class I obesity, and 3.8% of patients had Class II obesity, Whereas 5.34% of patients were overweight.

This shows the higher incidence of the disease in people having obesity. Moreover, only 16.03% of people had normal BMI.

The patients were followed up for 3 years which is a small period to assess the progress of disease as disease progression in OA is a slow process and occurs over years or decades.

The rate of progression is variable between individual, and many patients with clinical evidence of OA may not suffer appreciable progression either by symptoms or radiographic changes.

**Conclusion**

Homoeopathic medicines are potential enough to improve the ADL of patients, by reducing pain and stiffness and limiting progress of the disease without any adverse, systemic effect and can safely be employed as a comprehensive health-care therapeutic.

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