

## EFFICACY OF CALCAREA CARBONICA 30C IN THE MANAGEMENT OF OSTEOARTHRITIS OF KNEE JOINT

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### ABSTRACT

Osteoarthritis knee is the most common form of arthritis and a major cause of pain and disability in the elderly population. 80 % of the people have radiographic evidence of osteoarthritis, but only 25-30% are symptomatic. In India 22% to 30% of the population suffers from Osteoarthritis knee, the second most common rheumatologic problem. Osteoarthritis Knee was estimated to be the 10<sup>th</sup> leading cause of non-fatal burden. More common in women than in men, nearly 45% of women over the age of 65 years have symptoms of osteoarthritis. A 62-year-old female has been suffering by drawing pain in both knee joints for the last 6 years, they complain worse by walking, ascending stairs, cold exposure, pressure, and working in water; feels better during sitting (rest). From the totality of the patient, Calcarea carbonica 30C was prescribed. Then gradually had improved knee pain and quality of life.

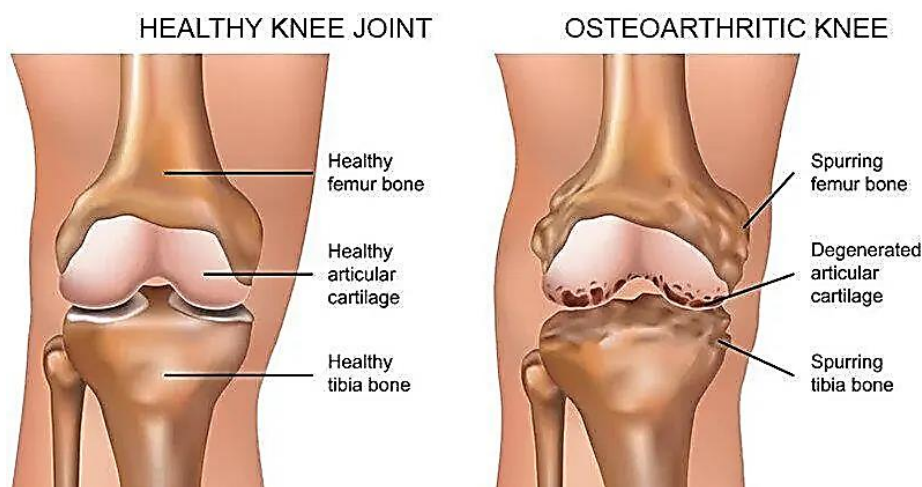
**KEYWORDS:** Osteoarthritis of Knee, Calcarea carbonica 30C, Case study, KOOS scale assessment, Homoeopathic Treatment.

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## INTRODUCTION

Osteoarthritis knee is the Chronic degenerative disorder of multi factorial etiology characterized by the loss of articular cartilage, hypertrophy of bone at the margins, subchondral sclerosis and range of biochemical and morphological alterations of the synovial membrane and joint capsule.<sup>(1)</sup>

Among the arthritis, osteoarthritis knee (**Figure 1**) is the most common form of arthritis and major cause of pain and disability in elderly population. 80 % of the people have radiographic evidence of osteoarthritis, but only 25-30% are symptomatic.<sup>(2)</sup> The global prevalence of osteoarthritis knee is 22.9% in individuals aged 40 and over. There are 654.1 million individuals affected with osteoarthritis knee in 2020 worldwide. And incidence is more in women.<sup>(3)</sup> In a community based survey, the incidence and prevalence of osteoarthritis is increased 2 to 10 fold from 30 to 65 years of age.<sup>(4)</sup>



**Figure 1: Knee Osteoarthritis**

Normal adult articular cartilage is made up of extracellular matrix (water, collagen, proteoglycans and a very small component of calcium salt) and chondrocytes. Osteoarthritis results from failure of chondrocytes to maintain homeostasis between synthesis and degradation of these extracellular matrix components. Osteoarthritic cartilage is characterized by an increase in anabolic and catabolic activity. Initial degenerative changes in the articular cartilage lead to cartilage softening, fibrillation zone of the superficial layers, fissuring and

diminished cartilage thickness, but these changes become more pronounced with time, when articular cartilage thins to total destruction, eventually leaving the underlying subchondral bone plate completely exposed. All these changes in the articular cartilage are referred to as chondropathy.<sup>(5)</sup> It leads to alteration of the structure of knee leads to decrease in the patients quality of life. The altered properties of the synovial fluid in osteoarthritis, the decrease in molecular size and concentration of Hyaluronic acid lead to reduced rheologic properties.<sup>(6)</sup>

Prevalence of Osteoarthritis is increasing in many developing countries due to westernization of diet, obesity, aging and other detrimental lifestyle changes. India may become the Osteoarthritis capital of the world with over 60 million cases by 2025. Doctors say osteoarthritis is the most prevalent form of arthritis in India, affecting over 15 million adults every year.<sup>(7)</sup> Osteoarthritis leads to complete disability of the Knee joint. If the pain is not relieved by medication or physiotherapy for long, a person may be bedridden in the long run.<sup>(8)</sup>

Knowing that OA is a progressive condition, it is of great importance to assess for early signs of OA. This can be done by screening patient-reported outcomes, such as pain, function and quality of life, clinical findings such as joint tenderness and crepitus, objective measures of physical activity, and various imaging modalities, such as X-ray, along with biochemical markers.<sup>(9)</sup>

## **MATERIALS AND METHODS**

### **Case Report**

A 62 years old female patient came to OPD with a complaint of drawing pain in both knee joint since last 6 years, complaints worse by walking, ascending stairs, cold exposure, pressure and working in water; feels better during sitting (rest). Due to knee pain not able to do work. Swelling on both knee joint which increases after walking and evening.

### **History of presenting complaints**

The patient complaints of drawing pain in both knee joint since last 6 years. Increased for last 3months. Complaints worse by walking, ascending stairs, cold exposure, pressure and working

in water; feels better during sitting (rest). Initially she took Allopathic treatment (Took pain killers) had temporary relief. Doctor told to do surgery or put injection in knee. So she did not go to that hospital and took native medicine and applied oils. Now came for Homoeopathic treatment.

### **History of Previous Illness with Treatment Adopted**

Since 5 years – Mild Hypertension – Under allopathic medication (Irregular intake of tablets)

### **GENERAL SYMPTOMS:**

#### **General features:**

Appetite – Normal

Thirst - Normal

Sleep – Disturbed due to pain, touching of both knee increases more pain

Stool - regular, but little difficult to pass

Urine- normal

Sweat – Little more, all over body, more during walking and if not fanned.

#### **Mental Generals:**

Tension about her knee problem.

Not like to do work(works slowly) due to pain.

#### **Physical Generals:**

Desire: Cold season (Hot season sweat more), But knee pain will increase. Need fanning (Otherwise sweat more)

Desire: All foods, especially fish and egg.

### **PHYSICAL EXAMINATION**

- Obese

- Oedema: In both knee joints
- Blood pressure: 122/74 mm of Hg

### SYSTEMIC EXAMINATION:

**Inspection:** Swelling present both knee joint.

**Palpation:** Local warmth present in both knee joint. Tenderness present in both knee joint.  
Crepitus present in both knee joint.

### Investigation

**X-ray knee joint:** AP and Lateral view shows reduced in space and osteophytes seen.

**KOOS(Knee Injury and Osteoarthritis Outcome Score) Scale: 87**

### Final diagnosis:

Osteoarthritis of Both Knee Joint

### Totality of symptoms:

Anxiety about her problem; works slowly; desire fanning; drawing type of pain in knee joint  
<walking, ascending stairs, cold season; > rest, Obesity.

### PRESCRIPTION:

R<sub>x</sub>

Calcarea carbonica 30C/ 14 dose, OD (Morning)

Sac Lac 14 dose, OD (Night)

**Table 1: Follow-up**

Sl. No	Date	Symptoms	Remedy	Inference
1.	28/02/2024	Knee pain slightly feels better < walking, night, standing. Swelling of both knee persist, no change	Rx 1.Calcarea carbonica 30C/ 14 dose, OD (Morning) 2.Sac Lac 14 dose, OD	Complaints persist.

		Crepitus present in both knee	(Night)	
2.	13/3/2024	Knee pain decreased when comparing with previous visit, but still persist < walking, night, standing. Swelling of both knee persist, no change < standing, walking Generals: No change Crepitus present in both knee	Rx 1.Calcarea carbonica 30C/ 14 dose, OD (Morning) 2.Sac Lac 14 dose, OD (Night)	Complaints better, but persist
3.	27/3/2024	Knee pain decreased, can able to stand for more time < standing, night, cold exposure, >Rest Swelling of knee persists Generals: No change Crepitus present	Rx 1.Calcarea carbonica 30C/ 14 dose, OD (Morning) 2.Sac Lac 14 dose, OD (Night)	Complaints better, but swelling persist
4.	10/04/2024	Knee pain decreased, can able to stand for more time and do work, going to temple by walking < after long walking cold exposure, >Rest Swelling of knee decreased in morning < after long standing Generals: sleep improved Can pass stool freely Crepitus present	Rx 1.Calcarea carbonica 30C/ 14 dose, OD (Morning) 2.Sac Lac 14 dose, OD (Night)	Complaints better, swelling also reduced
5.	01/05/2024	Knee pain decreased then past, can able to walk and do work, Swelling of knee also decreased, no local warmth Crepitus better than past	Rx 1.Calcarea carbonica 30C/ 14 dose, OD (Morning) 2.Sac Lac 14 dose, OD (Night)	Feels better

**Table 2: KOOS scale assessment**

Sl. No	Date	Total score
1	28/02/2024	87
2	13/03/2024	87
3	27/03/2024	80
4	10/04/2024	72
5	01/05/2024	49

## DISCUSSION

The prescription was based upon the presentation of symptoms by patient and by physical examination of the doctor. At first patient not got much response, but after every case taking totality matched with Calcarea carbonica, so Calcarea carbonica 30 prescribed in daily dose then patient shows good improvement in symptoms. The following are the indications as given in homoeopathic literatures.

### Calcarea Carbonica

1. Cracking sound in knee while walking. 2. Knees hot and swollen. 3. Very sensitive to touch < night. 4. Weakness in knees as if sprained, has to straighten it before walking. 5. Drawing or stinging pain in knee while sitting or walking. 6. Complaints < exertion. 7. Complaints generally aggravates by exposure to cold. 8. Desire eggs. 9. Obesity 10. Excessive perspiration in general.

## CONCLUSION:

At first this patient was treated with Rhus toxicodendron based on acute totality and as acute medicine, in spite of frequent repetition there was no improvement. Then prescribed Calcarea carbonica 30 C, it gave very good improvement in patient. Thus constitutional medicine Calcarea carbonica is effective in treatment of Osteoarthritis of Knee joint.

## REFERENCES

1. Silman.A.J, Hochberg.C.M. Epidemiology of Rheumatic disease. Second edition, published: 20 December 2001.

2. Boon A Nicholas, Colledge R Nicki, Walker R Brain, Hunter A.A.John. Davidson's Principles and Practice of Medicine. 20<sup>th</sup> edition. India: Churchill livingstone Elsevier; 2006.
3. Cui Aiyong, Li Huiz, Wang Dawai. Global regional prevalence, incidence and risk factors of knee osteoarthritis in population based studies. November 26,2020. [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(20\)30331-X/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(20)30331-X/fulltext)
4. Olivera S A, Felson DT, Reed JI, Cirillo PA, Walker AM,. Incidence of symptomatic hand, hip and knee osteoarthritis among patients in a health maintenance organization. *Arthritis rheum.* 1995;38:1134-141
5. GS Man, G Mologhianu. Osteoarthritis pathogenesis – a complex process that involves the entire joint. *Journal of Medicine and Life.* 25 march 2014. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3956093/>.
6. Migliore Alberto, Granata Mauro. Intra- articular use of Hyaluronic acid in the treatment of osteoarthritis. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2546480/>
7. India may have 60 million osteoarthritis cases by 2025. Updated july 13, 2017. <https://food.ndtv.com/health/india-may-have-60-million-osteoarthritis-cases-by-2025-1231464>.
8. Peace health, health information library. 31.12.2012. <https://www.peacehealth.org/medical-topics/id/hn-2246008>
9. Emery, C.A.; Whittaker, J.L.; Mahmoudian, A.; Lohmander, L.S.; Roos, E.M.; Bennell, K.L.; Toomey, C.M.; Reimer, R.A.;Thompson, D.; Ronsky, J.L.; et al. Establishing outcome measures in early knee osteoarthritis. *Nat. Rev. Rheumatol.* **2019**, *15*, 438–448. [Google Scholar ][Cross Ref ] ([https://scholar.google.com/scholar\\_lookup?](https://scholar.google.com/scholar_lookup?)
10. Hering C. The guiding symptoms of our Materia medica. Reprint edition. Delhi. B.jain publishers Pvt.Ltd. 1997.
11. Clarke JH. A Dictionary of Practical Materia Medica. Student edition. India: B.Jain publishers(P) ltd. 2006.