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To study the role of centesimal potency in reducing pain of patients with osteoarthritis of knee joint

Dr. Amrutha Manoharan

Abstract

The most common joint disorder, the most common cause of pain and disability in the older age group. Chronic knee pain, painful movements are the major symptoms. Homeopathic medicine can provide a palliative and more effective and long lasting relief to the patient. By the system of homoeopathy the old age people can get an affordable and effective way of treatment.

Keywords: Osteoarthritis of knee joint, centesimal potency, homoeopathy

Introduction

Osteoarthritis is one of the most common degenerative joint disease, mainly affecting older age group. It comes under ICD -10 under degenerative joint diseases. In this study, my aim is to find out the efficacy of the centesimal potency in the management of osteoarthritis of the knee joint. Osteoarthritis or degenerative joint disease is the most common joint disorder. The main feature is degeneration of the articular cartilage. Osteoarthritis is clinically presented as joint pain and crepitus in the elderly age group. It is radiologically characterized by decrease joint space, osteophytes and a variety of deformities that develop as the disease progress. Osteoarthritis mainly affects the weight bearing joints. As it is a degenerative joint disorder most of the old persons are suffering from this disease.

Need For the Study

In our modern society large number of patients are suffering from Osteoarthritis of knee joint, many pain relieving balms and pain killers are being used by the patient. • Homeopathy has an excellent role in treating osteoarthritis of the knee joint and mainly reducing the pain and swelling. • And one of the greatest advantages of homeopathic medicine is that it is having no side effects and is cost effective.

Review of Literature

Osteoarthritis or degenerative joint disease is the most common joint disorder. The fundamental manifestation is degeneration of the articular cartilage ^[26] characterized by a decreased joint space, osteophytes and a variety of deformities that develop as the disease progresses. The disease mainly affects the weight bearing joints. The relative risk is 1.9 for men and 3.2 for women ^[1]. Homoeopathy medicines are really valuable in reducing pain and symptoms of osteoarthritis of knee with significant improvement noted in VAS scale ^[33]. The term osteoarthritis was coined by John Spendon ^[14].

Epidemiology

The Indian Journal of Orthopaedics conducted a study, which showed the overall prevalence of knee OA was found to be 28.7%. According to WHO, OA is the second commonest musculoskeletal problem (30%) in the world population [45].

Incidence

The incidence of osteoarthritis of the knee joint is found to be 28.7% and was highest in South India [40].

Risk Factors

Endogenous – age, sex, heredity, ethnic origin and post-menopausal changes. Exogenous – macrotrauma, repetitive microtrauma, overweight, resistive joint surgery and lifestyle factors (alcohol, tobacco).

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Pathological Changes [32].

- Osteoarthritis of knee mostly affects the synovium of knee joints.
- The initial structural changes in osteoarthritis include enlargement, proliferation and disorganization of the chondrocytes in the superficial part of the articular cartilage.
- By fibrillation and cracking of the matrix the superficial layer of the cartilage is degraded.
- The underlying cancellous bone becomes sclerotic and thickened.
- Subchondral bone into the joint forming loose bodies articular joint mice.
- Osteophytes develop at the margins of the articular surface
- Basic calcium phosphate and calcium pyrophosphate dehydrate crystals are present microscopically in most joints with end stage OA [15].

Symptoms and signs of osteoarthritis [49].

- Pain may be severe or moderate in knee while resting, day or night.
- The patient has bonny crepitus from the affected compartment [2].
- Crepitus or crackling during movement of the joint.
- Warmth over the joint.
- Limited range of movement.

Investigation and Lab Tests

- X Ray of knee joint.
- Blood tests: To rule out any other causes of joint pain such as Rheumatoid Arthritis.
- ARTHROSCOPY In this procedure, a tiny camera is used to visualize the interior of the joint and abnormality inside the joint is noted ^[23].
- Joint fluid analysis examining and testing the fluid from the joint can determine if there is any inflammation and if pain is caused by gout or infection

Differential Diagnosis of Osteoarthritis of Knee Joint [11].

- Recurrent dislocation of the patella many reasons are for the dislocation of patella. Of these, anatomical abnormalities such as genu valgum and poor development of the ridge on the lateral femoral condyle should be cited first. Of the other causes, weakness of the vastus medialis and lax ligaments may lead to recurrent dislocation of the patella.
- 2. Acute pyogenic arthritis The knees become swollen and show all signs of inflammation. The joint is very much tender. 7
- 3. Tuberculosis of the knee this is a part of generalized affection and infection and is mainly blood borne and settles in synovium or in the metaphysis or epiphysis of the femur or the tibia. Limb and aching are the early symptoms. Soon there will be a swelling of the joint with a slight flexion deformity.
- **4.** Cysts about the knee

Osteoarthritis of the knee joint – homoeopathic aspect [19]

According to homoeopathic principles and homoeopathic classification of disease, Osteoarthritis comes under chronic disease and Master Hahnemann mentioned about chronic disease clearly in aphorism 72. "They are disease of such a character that, with small often imperceptible beginnings, dynamically derange the living organism, each in its own peculiar manner and cause it gradually to deviate from the healthy condition, in such a way that the automatic life energy called vital force, whose office is to preserve the health, only opposes to them at the commencement and during their progress imperfect, unsuitable, useless resistance, but is unable of itself to extinguish them, but must helplessly suffer (them to spread and) itself to be ever more and more abnormally deranged, until at length the organism is destroyed; these are termed as chronic disease. They are caused by infection with a chronic miasm."

Miasmatic analysis of symptoms of osteoarthritis of knee ioint [3].

Psora Sensations - Numbness with tingling. Modalities - Aggravation during winter season requires warmth both externally and internally, aggravation during winter season and requires warmth both externally and internally. 12 Character - Rheumatism of functional and inflammatory type of rheumatism. Sycosis Sensations - Pain is stitching, pulsating, shooting, wandering and tearing. Modalities - Aggravation during storm, damp weather, on beginning to move and amelioration by motion, rubbing and pressure. Character - Stiffness, soreness, lameness and easy spraining. Syphilis Sensations - Burning, bursting and tearing type of pain. Modalities - Aggravation at night, sunrise, movement and warmth. Character - Joints weak and fall easily.

Homoeopathic medicines for osteoarthritis [22].

There are many medicines for osteoarthritis in homoeopathy and the main medicines are mentioned below.

Bryonia Alba Pain with inflammation, which is aggravated by movement and relieved by moderate pressure and rest. There is inflammation of joints which are hot and swollen. Stiff knees and painful, joints red, swollen, hot, with stitches and tearing, with movement aggravates. Painful spot on pressure [7]. Worse, warmth, any motion, morning, eating, hot weather, exertion, touch. Pressure and rest relive the symptoms. Pain in serous membranes and joints. RHUS Toxicodendron There is restlessness and the pains are worse on first motion, better by continued motion. The joints are hot, painful and swollen. Tearing pains in tendons, ligaments and fascia. Limbs stiff paralyzed. The cold fresh air is not tolerated; it makes the skin painful [7]. It acts on cellular ligaments and fibrous joints [8]. Tenderness about the knee-joint. Complaints increased during sleep, cold, wet rainy weather and after rain; at night, during rest, and relieved by warm, dry weather, motion; walking, change of position, rubbing, warm applications, from stretching out limbs. Kali Carbonicum The nature of pain is stitching, stabbing and burning character which is relieved temporarily by cold application and not by rest or motion. The patient shrieks on account of pain. Pain is tearing in nature in limbs with swelling. The complaint increased in cold weather from soup and coffee, better in warm weather. The pains are sudden and so sharp which make the patient cry. 17 Arnica Montana Arthritis which is of a chronic nature with a feeling of bruised soreness can indicate a need for this remedy. Sprained and dislocated feeling. Soreness after over exertion. Rheumatism begins low down and works up. Rheumatism begins low down and works up. The complaint aggravated during least touch, motion, rest, wine

and damp cold. And better, lying down. Recent and remote affections from injuries, especially contusions or blows. Ruta Graveolens Arthritis with a feeling of great stiffness and lameness, worse from cold and damp, and worse from exertion often is relieved by this remedy. Tendons and the capsules of the joints may be affected. Arthritis may have developed after overuse, from repeated wear and tear. APIS Mellifica This remedy is mostly used in acute conditions with redness, tenderness and swelling. Joints feel hot and have stinging pain. Warmth can aggravate the symptoms and cool applications bring relief. The complaint got aggravated from heat in any form touch, pressure, late in the afternoon, after sleeping, in closed and heated rooms and relived by open air, uncovering, and cold bathing [28]. Calcarea Carbonica Arthritis in a person who is flabby or overweight, and easily tired by exertion. Swelling of knees in fatty constitution with sweats on the head and hands worse in cold and damp weather [28]. Aggravated from exertion, mental or physical, ascending, cold in every form, water, washing, moist air, wet weather, during full moon, standing. Better, dry climate and weather; lying on painful side. Sticta Pulmonaria The main action reduces fluid in the joints. Housemaid's knee. Shooting pain in knees. Joints and neighbouring muscles red, swollen, painful. Rheumatic pains precede catarrhal symptoms [7]. Worse with sudden changes of temperature. Mainly curative in inflammatory rheumatism of the knee joint. It is very sudden in its attacks and unless promptly relieved by strict will go on to the oxidative stage and become chronic in character. Peculiar symptom legs felt as if floating in the air, or felt light and airy as if not resting on the bed [39]. Elaterium Pain in the knees, toe thumb and fingers worse cold and damp weather.

Materials and Methods

A sample of 30 cases was selected among the patients with Osteoarthritis of knee joint was taken Sampling Technique: Random Sampling.

Summary of Findings

- Out of 30 patients studied, 22 patients (73.33%) were females and 8 patients (26.66%) were males.
- The age group distribution was 14 patients (46.66%) were from 45 55 years and 11 patients (36.66%) is from 56-65 years of age; 5 (16.66%) is from 66 75 Years of age; 0 case (0%) belongs to 76 80 years of age. Maximum number of cases, 14 patients (46.66%) are from 45- 55 years of age and 11 cases (36.66%) belongs to 56 65 years.
- When observed about the distribution of occupation of the study group, the result was the maximum number of cases were housewives 18 (62%), then 5 (16%) was coolie and followed by 3 (10%) were fisherman and 1 (3.33%) was police, 1 (3.33%) was doing business, 1 (3.33%) was carpenter and remaining 1 (3.33%) was retired employee.
- The medicine selected in most of the cases was Bryonia Alba in 16 cases (53%) followed by Rhus Toxicodendron in 11 cases 36%, and the rest of the cases by Pulsatilla, Arnica and Calcarea Carb with 1 case (3.33%).
- According to BMI distribution 15 cases (50%) belong 25-29.2; 8 cases (26%) belong to 18.5 – 24.9 and 7 cases (24%) belong to BMI 30 and above.

- Based on improvement, 18 cases (60%) have marked improvement, 8 cases (26%) have moderate improvement and 3 cases (10%) have mild improvement.
- Based on past illness, 16 cases (53.3%) have no past illness relevant to case, 9 cases (31%) have a history of Chikungunya, 3 cases (10%) have a history of dengue fever and 2 cases (6.6%) cases have a history of trauma.

Statistical Analysis

The critical ratio t follows a distribution with n -1 degrees of freedom, the tabled value at 5% significance level is 2.045 for 29 degrees of freedom. Since the calculated value 17.6 76 is greater than the tabled value at 5% significance level. Thus the null hypothesis is rejected.

Inference - This study shows significant reduction in the pain of patients with osteoarthritis of knee joint. Therefore, this study shows that Homoeopathic medicines in centesimal potency were effective in reducing the pain of patients with osteoarthritis of knee joint.

Discussion

The most common degenerative joint disorder affecting older age, osteoarthritis. This study was conducted on the patients who attended IPD, OPD and rural health centres of Sarada Krishna Homoepathic Medical college. Both sexes were taken for the study.

- A total of 30 cases were selected for the study, which were followed during a minimum duration of 3 - 6 months.
- The assessment of improvement criteria was based on VAS scale. For statistical analysis T" test was applied. Out of 30 patients studied, 22 patients were females.
- Most of the age group of persons was from 45 55 years, about 14 cases. The occupation of most patients was analyzed and majority of them were housewives, 18 cases about (62%), 5 (16%) was coolie followed by 3 (10%) were fisherman and 1 (3.33%) was police, 1 (3.33%) was doing business carpenter, 1 (3.33%) was retired employee.
- In this study the remedy used in most cases was Bryonia Alba in 16 cases with a percentage of (53%), followed by Rhus Toxicodendron in 11 cases 36%, and the rest of the case by Pulsatilla, Arnica and Calcarea Carb with 1 case (3.33%).
- Based on the weight of the patient there was a significant number of patients who are obese who developed osteoarthritis. According to BMI distribution 15 cases (50%) belong 25-29.2 kg/m2, 8 cases (26%) belong to 18.5 24.9 kg/m2 and 7 cases (24%) belong BMI 30 kg/m2 and above.
- Assessment based on the improvement criteria and based on improvement, 18 cases (60%) have marked improvement, 8 cases (26%) have moderate improvement and 3 cases (10%) have mild improvement.

Conclusion

- Females are affected more. In the study 73% were females
- The patients with age group 45-55 years were affected more.
- The housewives are affected more due to their heavy work.

- Patients with BMI in the range of 25 29.2 kg/m2 are affected more.
- In the study, 60% cases showed marked improvement of complaint.
- Past history of dengue and chikungunya increases the risk of osteoarthritis of the knee joint.
- Homoeopathic medicines given in centesimal potency have a great role in reducing pain of patients suffering with osteoarthritis of the knee joint.
- The medicines that were commonly used in the study are Rhus Toxicodendron and Bryonia Alba.

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