Effectiveness of rare homoeopathic medicines in the management of knee joint pain in the patients between 45 to 65 years of age

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Abstract
Knee joint pain is the most disabling condition mostly associated with ageing. This study investigates the problem of knee joint pain, its severity in 60 patients of age group 45 to 65 years of age, the therapeutic effect of most simillimum rare homoeopathic medicines repertorised on basis of comprehensive case taking and individualization to reduce pain, improve mobilization and improve quality of life. Aim: To ascertain the Effectiveness of Rare Homoeopathic Medicines in the management of knee Joint Pain in patient between the age group 45 to 65 years of age.

Objective: To evaluate the therapeutic effect of Rare homoeopathic medicines prescribed on symptom similarity to the patients of Knee Joint Pain.

Study Design: A pre- post Study.

Methods: 60 patients were taken up for this study after being diagnosed with knee joint pain with the aid of history taking, clinical examination, investigation and application of rare homoeopathic medicines.

Results: Out of 60 Patients of Knee Joint Pain, 8 cases (13%) showed marked improvement, 34 cases (57%) showed moderate improvement, 14 cases (23%) showed mild improvement, while 4 cases (7%) were in status quo and 0 case showed worsening of symptoms.

Conclusion: Rare Medicines Angustura Vera, Formica Rufa, Arbutus Andrachne, Osteo Arthritic Nodosa, salicylic Acid, Sycotic Bacillus are found effective in treatment of Knee joint pain in patients between the age 45 to 65 years of age.

Keywords: Knee Joint Pain, Rare Homoeopathic medicines, Western Ontario and McMaster Universities Arthritis Index (WOMAC), age 45 to 65 years.

Introduction
Osteoarthritis is the single most common cause of disability in older adults. During a one-year period 25% of people over 55 years have a persistent episode of knee pain, of whom about one in six in the UK and the Netherlands consult their general practitioner about it in the same time period. The prevalence of painful disabling knee osteoarthritis in people over 55 years is 10%, of whom one quarter are severely disabled. Knee osteoarthritis sufficiently severe to consider joint replacement represents a minority of all knee pain and disability suffered by older people. Healthcare provision in primary care needs to focus on this broader group to impact on community levels of pain and disability. Homoeopathy is a system of medicine which is based on the principle Similia Similbus Curantur (like cures like). Vital force which is dynamic and autocratic in nature drives all the sensation. It is the immaterial medicine which is based on the derangement of life maintaining vital force thus manifesting as disease.

In homoeopathic treatment medicines act on this deranged vital force, thus restoring the integrity of the material being by stimulating the immaterial being. Certain diseases, which commence and conclude over a short period of time or are self-limiting are called acute diseases. Chronic diseases are diseases which do not end in short period and sustain themselves for a longer time, such that this deranged vital force is unable to resist it and maintain its autocracy thus leading to helpless suffering of the material being until the organism is completely devastated. With prescriptions given in homoeopathic consultation we normally treat a case by prescribe a constitutional medicine on the basis of individuality and symptom similarity which can provide a certain amount of relief [4-9]. Many of these homoeopathic drugs play an important role in stimulating the vital force thus providing relief in pain symptoms. Therefore, in consultation and guidance from my faculty, I thought to perform a systematic research on knee joint pain with rare homoeopathic medicines.
Homoeopathic Materia Medica has a vast collection of medicines and among these there are certain Homoeopathic medicines such as Angustia vera, Arbutus Andrachne, Formica rufa, Osteo Arthritic nodosa, Salicyclic acid, Sycotic Bacillus which are rare and they have remained unused as they have very few and proved symptoms in our practice. Knee joint pain being one of the most disabling joint condition, prevalent in middle age and elder age group, knee joint pain originates in bony structures of knee joint which includes femur, tibia, fibula, patella, all the four ligaments (ACL, PCL, MCL, LCL) and meniscus of the knee. Symptoms associated with knee joint pain include, stiffness due to inactivity or morning stiffness [10]. Knee osteoarthritis (KOA) is one of the common causes of disability after the fourth decade of life. Pain is the most common symptom of KOA. Most nonsurgical interventions for early-to-moderate KOA include the use of nonpharmacological interventions (NPIs). Many countries have elaborate KOA management protocols. Body balance system is said to be altered in KOA patients. In India, there are many gaps in evidence about the efficacy of NPIs and kinesthesia, balance, and agility (KBA) for KOA patients. NPIs including a set of physiotherapy exercises [11-14], KBA training, meditation, weight reduction advice, and weekly telephonic compliance monitoring. Worldwide 9.6% of men and 18.0% women aged above 60 years have degeneration of knee joint. 80% of patients have limitation of movement. 25% are not able to perform major daily activities of life. Without proper treatment, it can lead to lifelong deformity and disability. Homoeopathy plays a very important role. The comprehensive case taking and Individualization of each patient’s constitution and then selection of the simillium by comparing the symptom totality of patient with symptom totality of selected rare medicines by use of Materia Medica enables the wholistic cure of the patient i.e. all physical, mental and social symptoms are corrected. Homoeopathic medicine chosen correctly, reduces pain and improves the mobility. Articular cartilage being avascular is devoid of any nerve supply, only the muscles, adjacent ligaments, joint capsule, synovium and the surrounding skin are innervated by nerves, so as long the disease is confined to the structure, patient remains asymptomatic that is devoid of any pain. When secondary changes like possible increased intraosseous pressure, synovitis, mechanical strain on ligaments and capsule occur, knee joint pain occurs. In Late stage, with degeneration of cartilage, crepitus occurs and grinding of consecutive bones will lead to severe pain. As pain occurs due to affection of periarticular tissue, thus, it is typically worse by movements and better by rest which occurs initially, later on pain may be present even at rest [15-20].

Knee joint pain is condition where the onset is gradual with a long asymptomatic phase progressing slowly, with intermittent exacerbations and remissions lasting for days weeks and months. Knee joint is the weight bearing joint which is easily affected. Knee joint pain can occur in either single leg or both depending on various factors. Joint pain swelling, stiffness, decreased movements, cracking of joints [21-26].

Material and methods

Inclusion criteria

60 patients of knee joint pain will be included after receiving the informed consent. Patients between the age of 45 to 65 years and both sexes will be considered for study. The patients will be taken in consideration on first come first serve.

Exclusion criteria

Patients below 45 years of age and above 65 years of age are excluded and Non-complying patients who have psychiatric disorders and drug addiction.

Sample

Patients coming in OPD will be considered and studied as per methods described in Organon of Medicine and Sample of 60 patients were taken on basis of first come first serve.

Age and Sex

Patient of age group 45 to 65 years of age and both sexes will be considered.

Informed Assent-cum-Consent document: Attached in both English and Hindi. Rare medicines in Knee Joint pain age between 45 to 65 years

Data collection: Data collection was done on the basis of the simple randomized sampling Method. h.

Duration of study: One Year

Permission to use copyrighted proforma /studies / questionnaire: Will be duly complied with

Study Design: A pre- Posttest only It is a quasi-experimental design that is conducted quite often to evaluate the effectiveness of a treatment. It consists of set of values measured before and after the treatment on one group of subjects.

Selection of tools: Subjects were assessed through the following indices i.e. on the basis of Western Ontario and McMaster Universities Arthritis Index by Western Ontario and McMaster Universities in 1982 which includes 24 items divided into 3 subscales. The test questions are scored on a scale of 0-4. The scores for each subscale are added up, with a possible score range of 0-20 for Pain, 0-8 for Stiffness, and 0-68 for Physical Function. Higher scores on the WOMAC indicate worse pain, stiffness, and functional limitations. The score is the mean of the 24 criteria’s therefore 0 will be controlled and 4 is extremely poor controlled. Hypothesis was tested using ‘t’ table and ‘t’ paired test was used to nullify the null hypothesis and alternate hypothesis was established. Alternate Hypothesis was established by analyzing the data.

Outcome assessment

A case taking proforma was especially designed for the study with approval of the guide. Following parameters were fixed according to the type of the response obtained after the treatment. Status % = Baseline score - score at the end x 100/ Baseline score. O Marked Improvement – Status % > 60 %. O Moderate Improvement – Status % 30 – 60 %. O Mild Improvement – Status % 1 – 30 %. O Status quo – No change in Status %. O Worse – Increase in symptom staging.

Record of work

Case taking Performa as per Organon of Medicine and the topic of dissertation and other records were duly maintained.

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with confidentiality.

**Repertory**
Repertorization according to the symptom similarity of the patient and profile of the medicine used.

**Remedy selection**
Remedies were selected by confirmation from Materia Medica. The remedies were prescribed on the similarity between profile of the remedy and knee joint pain symptoms of the case.

**Placebo**
Placebo was prescribed as indicated in Organon of Medicine.

**Remedy application**
Potency selection, application and repetition of medicine(s) were done according to the case and project work.

**Source of remedy and study:** Pharmacy and College of Sri Ganganagar Homoeopathic Medical College, Hospital and Research Institute, Sri Ganganagar.

**Research hypothesis**
Null hypothesis (H0): Homoeopathic medicine is not effective in the patients of knee joint pain between 45-65 years of age.
Alternative hypothesis (H1): Effectiveness of rare homoeopathic medicine in management of knee joint pain in the patients between 45-65 years of age.

**Statistical Analysis**
For the sole purpose of to study “Effectiveness of rare homoeopathic medicines in the management of knee joint pain in the patients between 45 to 65 years of age,” the important statistical tool paired t- test has been taken into account. In this study sample size 60 was taken, degree of freedom (n-1) is 59 and Significant level is α=0.05.

**Results**
Maximum cases of Knee joint pain were observed in Female patients i.e.36 cases (60 %) in comparison to male patients i.e.24 cases (40%). knee joint pain was observed in the age group 45-51 years i.e. 33 cases (55%), age group 52-58 years have 18 cases i.e. (30%), whereas minimum incidence was in the age group 59-65 years I. e. 9 cases (15%). Less case were found in age group 59-65 years in my study. Maximum number of cases i.e. 31 cases (52%) were observed from Urban areas where as 29 cases (48 %) were from Rural areas. maximum number of patients were observed from lower economical class i.e.27cases (45%) followed by middle economical class i.e. 21 cases (35%), only 12 cases (20%) were from Higher economical class.

Knee joint pain was observed in Housewife i.e. 19 cases (32%) followed by Service Man i.e. 6 cases (27%), Businessman i.e. 9 cases (15%), Farmers i.e.9 cases (15%), worker i.e. 4 cases (6%), other i.e. 3 cases (5%).

Maximum number of patients were given Formica rufa i.e. 19 (32%), Arbutus Andrachne was given in 12(20%), Osteo Arthritic Nodosia was given in 9 (15%), Angustura Vera was given in 8 (13%), Salicylic Acid was given in 7 (12%), Sycotic Bacillus was given in 5 (8%). Out of 60 cases, 17(28%) cases had a family history of Obesity, 14(23%) Cases had arthritis, 9(15%) cases had Diabetes Mellitus, 6(10%)cases had Hypothyroidism, 5(8%) cases had skin complaints, 4(7%)cases had gastric complaints, 4(7%) cases had blood pressure, 1(2%) cases had cancer. out of 60 cases of knee joint pain, Maximum cases had a past history of Tonsillitis i.e. 12 (20%) while 7 (12%) cases had Cystitis, 9 (15%) cases each had past history of Skin diseases, 6 (10%) cases each had a past history of Pharyngitis and Menstrual complaints, 5 (8%) cases had Ulcers, 3 (5%) cases each had a past history of Ovarian cyst, Typhoid and Malaria, 2 (3%) cases each had a past history of Headache and Vaginitis, and 1(2%) cases each had past history of influenza and cholera. all 60 (100%) cases had Knee joint pain & 54 (90%) cases had Stiffness. 22 (37%) cases had Crepitus on active motion, 5 (8%) cases had Swelling and warmth 7 (12%) cases had bony enlargement, 6 (10%) cases had Limitation of movement, no case of deformity was reported. out of 60 cases, before treatment maximum cases were in the WOMAC score group 61-72 with 23 (38%) cases, while no case were in the group below 0-12 and 13-24, and 25-36, 13 (21%) cases in score group 37-48, 20(33%) cases in score group 49-60. After treatment, maximum cases were reported in WOMAC score points above 20 (33%) cases were in score group 25-36, 3(5%) cases in 0-12 group, 8 (13%) case in 13-24, 15 (25%) cases in 37-48 score group, 8 (13%) cases in score group 49-60, 5 (8%) cases in score group 61-72. 1 (2%) Cases in score group 73-84, no case in group 85-96, 8 cases (13%) showed marked improvement, 34 cases (57%) showed moderate improvement, 14 cases (23%) showed mild improvement, while 4 cases (7%) were in status quo and 0 case showed worsening of symptoms. Formica Rufa was given to 19 cases out of which 3 Case showed marked improvement, in 12 cases moderate improvement was seen, 3 cases have mild improvement, while 1 case was Status quo. Arbutus andrachne was given to 12 patients out of which 1 case showed marked improvement, in 6 cases moderate improvement was seen, 4 cases have mild improvement, while 1 case was Status quo. Osteo arthritic nodosa was given to 9 cases out of which 2 patients showed marked improvement, in 5 cases moderate improvement was seen, 1 case has mild improvement, while 1 case was Status quo. Angustura Vera was given to 8 cases out of which 1 case showed marked improvement, in 4 cases moderate improvement was seen, 2 cases have mild improvement, while 1 case was Status quo. Salicylic Acid was given to 7 cases out of which 1 case showed marked improvement, in 4 cases moderate improvement was seen, 2 cases has mild improvement. Sycotic Bacillus was given to 5 cases out of which in 3 cases moderate improvement was seen, 2 cases has mild improvement.

**Discussion**
Knee joint pain being one of the most disabling joint condition which strongly associates with aging, prevalent in middle age and elderly age. The modern lifestyle, sedentary living habits, high fat diet owe to overweighing. Symptoms associated with knee joint pain include, stiffness due to inactivity, cracking in joints, knee joint locking, loss of movement, tenderness of bones and mild swelling is present. Knee joint pain is a chronic condition which tends to occur in age group 45 to 65 years of age, gradual in its course is generally due to overuse of the joint. The present study was undertaken with the view to assess, the effectivenes of rare medicines in the management of knee pain in the patients between 45 to 65 years of age.
joint pain in the patients between 45 to 65 years of age. It is observed that, maximum cases of Knee joint pain were observed in Female patients i.e.36 cases (60 %) in comparison to male patients i.e.24 cases (40%). The observation correlates with the other epidemiological studies which states that females are more affected than males, it is observed that, maximum incidence of knee joint pain was observed in the age group 45- 51 years i.e. 33 cases (55%), age group 52- 58 years have 18 cases i.e. (30%), whereas minimum incidence was in the age group 59- 65 years i.e. 9 cases (15%). Modern lifestyle along with sedentary habits and unhealthy fatty diets tend to lead to being overweight in young middle age. Less cases were in age group 59- 65 years in my study due Rare medicines in Knee Joint pain age between 45 to 65 years to random sampling. It shows that knee joint pain being a progressive degenerative disease is more common in middle ages and elderly group, maximum number of cases i.e. 31 cases (52%) were observed from urban areas where as 29 cases (48%) were from rural areas. Proportionally Urban areas have slightly higher number of cases as gradual knee joint degeneration affecting middle age and elderly in either of the locality, maximum number of patients were observed from lower economical class i.e.27 cases (45%) followed by middle economical class i.e. 21 cases (35%), only 12 cases (20%) were from Higher economical class, maximum number of patients were given Formica rufa i.e. 19 (32%), Arbutus Andrachne was given in 12 cases (20%), Osteo Arthritic Nodosa was given in 9 cases (15%), Angustura Vera was given in 8 cases (13%), Salicylic Acid was given in 7 cases (12%), Sycotic Bacillus was given in 5 cases (8%). In the process to illuminate the therapeutic value of some rare medicines, they were prescribed according to symptom similarity, in maximum number of cases were given Formica Rufa, and minimum number of cases received. Sycotic Bacillus. In the study to analyze the severity of knee joint pain patients age group between 45 to 65 years, Western Ontario and McMaster Arthritic index score is used from the literature. The score ranged from 0 to 96, where 0 score represents no severity of symptoms, while 96 score represents maximum severity of symptoms. For analysis, the score was divided down into groups and cases were compared for their scores before and after the treatment. It is observed that, out of 60 cases, before treatment maximum cases were in the WOMAC score group 61-72 with 23 (38%) cases, while no case was in the group below 0-12 and 13- 24, and 25-36, 13 (21%) cases in score group 37-48, 20(33%) cases in score group 49-60. After treatment, maximum cases were reported in WOMAC score points above 20 (33%) cases were in score group 25-36, 35(5%) cases in 0-12 group, 8 (13%) case in 13-24, 15 (25%) cases in 37-48 score group, 8 (13%) cases in score group 49-60, 5 (8%) cases in score group 61-72. 1 (2%) Cases in score group 73-84, no case in group 85-96. It is observed that, 8 cases (13%) showed marked improvement, 34 cases (57%) showed moderate improvement, 14 cases (23%) showed mild improvement, while 4 cases (7%) were in status quo and 0 case showed worsening of symptoms. It is observed that, Formica Rufa was given to 19 cases out of which 3 Case showed marked improvement, in 12 cases moderate improvement was seen, 3 cases have mild improvement, while 1 case was Status quo. Arbutus andrachne was given to 12 patients out of which 1 case showed marked improvement, in 6 cases moderate improvement was seen, 4 cases have mild improvement, while 1 case was Status quo. Osteo arthritic nodosa was given to 9 cases out of which 2 patients showed marked improvement, in 5 cases moderate improvement was seen, 1 case has mild improvement, while 1 case was Status quo. Angustura Vera was given to 8 cases out of which 1 case showed marked improvement, in 4 cases moderate improvement was seen, 2 cases have mild improvement, while 1 case was Status quo. Salicylic Acid was given to 7 cases out of which 1 case showed marked improvement, in 4 cases moderate improvement was seen, 2 cases has mild improvement. Sycotic Bacillus was given to 5 cases out of which in 3 cases moderate improvement was seen, 2 cases has mild improvement.

Conclusion

We concluded that “Effectiveness of rare Homoeopathic medicines in the management of knee joint pain in the patients between 45 to 65 years of age.” was undertaken with the intension of learning facts about knee joint in age group 45 to 65 years. In my study, it was found that rare medicines such as Angustura Vera, Arbutus andrachne, Formica Rufa, Osteo Arthritic Nodosa, Salicylic acid and Sycotic Bacillus was beneficial in treating cases of Knee joint in age group 45 to 65 years of age. The study was conducted at O.P.D. / I.P.D. Sri Ganganagar Homeopathic Medical College, Hospital and Research Institute, Sri Ganganagar, Rajasthan for duration of 1 year. For the study, 60 cases of Knee joint pain were prescribed Rare medicines. The effect of medicine was observed for a period of minimum interval of 7-14 days. The inference drawn from the study is as follows: Maximum incidence of cases of knee joint pain were observed in the age group 45- 51 years i.e. 33 cases. It shows that knee joint pain being a progressive degenerative disease is more common in middle ages and elderly group. Incidence of females were more than in males as females are more prone to be affected due to lifestyle and hormonal influences. Maximum number of cases was reported from urban area, proportionally urban areas have slightly higher number of cases than rural areas as gradual knee joint degeneration affecting middle age and elderly in either of the locality. Lower socio-economic group were more prone due to their long working hours, heavy lifting works. In this study the patients were mostly housewives as they are more prone to have knee joint pain due to poor lifestyle and habit of continuous work leads to overuse of joint. Maximum cases had Knee joint pain in their Presenting complaints than any other complaints. Maximum cases had Tonsilitis their past history. Maximum cases had found obesity in their family history. Maximum number of cases before treatment were observed in score range 61- 72 i.e. 23 cases whereas, maximum number of cases after treatment were observed in score range 25-36 i.e. 20 cases. Out of 60 cases of Knee Joint Pain, 8 cases showed marked improvement, 34 cases showed moderate improvement, 14 cases showed mild improvement, while 4 cases were in status quo. Out of 60 cases of knee joint, Formica Rufa was given to 19 cases out of which 3 Case showed marked improvement, in 12 cases moderate improvement was seen, 3 cases have mild improvement, while 1 case was Status quo. Arbutus andrachne was given to 12 patients out of which 1 case showed marked improvement, in 6 cases moderate
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