

TO STUDY THE EFFECTIVENESS OF HOMOEOPATHIC MEDICINES IN 'LM' POTENCY IN CASES OF OSTEOARTHRITIS

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ABSTRACT

Background-Osteoarthritis (OA) is a chronic, degenerative disorder of synovial joints that increasingly affects the aging population, leading to pain, stiffness, restricted mobility, and disability. Conventional therapies often offer only symptomatic relief and may produce long-term adverse effects. Homoeopathic LM (50 millesimal) potencies, as introduced in the Sixth Edition of the Organon of Medicine, are known for their gentle, deep, and individualized therapeutic action with minimal aggravations. However, scientific literature regarding their effectiveness in OA remains limited, necessitating clinical evaluation.

Aim-To study the effectiveness of individualized Homoeopathic medicines in LM potency in cases of Osteoarthritis.

Methodology-An open-label, prospective clinical study was conducted on 100 cases of osteoarthritis aged 40 years and above, attending the OPD/IPD of Sri Ganganagar Homoeopathic Medical College Hospital & Research Institute. Patients were selected based on inclusion and exclusion criteria, and written informed consent was obtained. Individualized remedies in LM potencies were prescribed after detailed case taking, repertorization, and MateriaMedica confirmation. WOMAC (Western Ontario & McMaster Universities Osteoarthritis Index) was used to assess pain, stiffness, and physical function before and after treatment. Data were statistically analyzed using paired t-test via SPSS software (ver.16).

Results-Highly significant improvement was observed in all components of the WOMAC score. The mean difference between pre- and post-treatment scores was 4.57, with a standard deviation of 4.367. The calculated t-value was 10.481, with $p < 0.001$, indicating strong statistical significance and rejecting the null hypothesis. Commonly indicated medicines included *Rhustoxicodendron*, *Ruta*, and *Bryonia*, corresponding to the dominant miasmatic patterns (*Psora* and *Sycosis*).

Conclusion-Individualized Homoeopathic medicines in LM potency demonstrated significant therapeutic benefits in cases of osteoarthritis, reducing pain, stiffness, and functional disability as reflected in improved WOMAC scores. The findings support the clinical usefulness and safety of LM potencies as an effective complementary approach for osteoarthritis management.

Keywords: Osteoarthritis, Homoeopathy, LM Potency, 50 MillesimalScale, WOMAC, Individualized Medicine, Clinical Trial.

INTRODUCTION

Osteoarthritis is one of the most prevalent chronic joint disorders worldwide, characterized by progressive degeneration of articular cartilage, subchondral bone changes, osteophyte formation, and varying degrees of synovial inflammation. It primarily affects weight-bearing joints such as the knees and hips and is strongly associated with aging, obesity, trauma, and mechanical stress. Females exhibit a higher prevalence, with severity increasing considerably after the age of 55. Globally, OA ranks among the leading causes of disability, significantly impairing mobility, daily functioning, and quality of life, while imposing a considerable socioeconomic burden.

Modern understanding recognizes OA as a whole-joint disease involving cartilage, bone, ligaments, synovium, and surrounding tissues. Despite advances in medical research, no definitive disease-modifying therapy exists in conventional medicine. Homoeopathy provides individualized, holistic treatment aimed at stimulating the body's natural healing mechanisms. LM potencies, being highly refined and gentle, offer flexibility in dosing and are aligned with Hahnemann's principle of rapid, mild, and permanent cure. Given the limitations of current therapeutic options and the insufficient research on LM potencies in OA, this study was undertaken to evaluate their clinical effectiveness.

Aim

To study the effectiveness of Homoeopathic medicines in LM Potency in cases of Osteoarthritis.

Objectives

- i. To analyze the causative factors, clinical features and miasmatic predominant of Osteoarthritis.
- ii. To explore the usefulness of WOMAC scale (The Western Ontario and McMaster Universities Osteoarthritis Index) to assessment of Osteoarthritis.
- iii. To evaluate a group of most effective Homoeopathic medicines in treatment and management of Osteoarthritis.

METHODOLOGY

a. Inclusion criteria:

- i. Individuals within ascertain age group (40 years and above).
- ii. Diagnosed/Undiagnosed cases of Osteoarthritis who came to the OPD/IPD.
- iii. Patients who have provided written consent to participate in the study.

b. Exclusion criteria:

- i. Patient with serious health issues that interfered with the study or pose risks.
- ii. Often pregnant women and lactating females were excluded due to potential risks.
- iii. Patients who have not provided their written consent and not be able to follow the study protocol.

c. Withdrawal criteria:

- i. If the participants want to withdraw anytime of the study period, they were allowed to withdraw.
- ii. If any emergency situation arises, where the continuation of the study is not further possible for the participant, they were exempted from the study.

d. Population/Sample: 100 cases of Osteoarthritis from OPD and IPD of Sri Ganganagar Homoeopathic Medical College Hospital and Research Institute were included.

e. Age and Sex: 40 years and above age group of all sexes.

f. Duration of study: 12 months

g. Permission to use copyrighted proforma/studies/questionnaire: duly complied with.

h. Plan to withdraw standard therapy during conduct of research: NO

i. Study Design: An Open Label Prospective Clinical Trial.

j. Selection of tools: (i) Case study proforma (Appendix-I) (ii) Library (iii) Organon of Medicine (iv) Materia Medica (v) Repertories (vi) Encyclopedia (as necessary) (vii) Equipped laboratory (viii) Electronic search tools (ix) Statistical software (x) Assessment scales- "WOMAC" scale (The Western Ontario and McMaster Universities Osteoarthritis Index) (Appendix-II)

k. Expected outcome: Homoeopathic Medicines in LM Potency is effective in the treatment of Osteoarthritis.

l. Ethical outcome: To approach Institutional Ethics Committee of Sri Ganganagar Homoeopathic Medical College, Hospital and Research Institute, Sri Ganganagar for ethical guidance.

m. Place of work: Hospital wing of Sri Ganganagar Homoeopathic Medical College, Hospital and Research Institute, Sri Ganganagar, Rajasthan.

n. Record of work: Case taking proforma as per Organon of Medicine and the topic of dissertation and other records were duly maintained with confidentiality.

o. Repertory: Repertory were used according to the case/study.

p. Remedy selection: Remedy was selected after repertorization and confirmation by Materia Medica in LM-potency.

q. Placebo: Placebo were prescribed as indicated in Organon of Medicine.

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

s. Remedy application: Potency selection, application and repetition of medicines were done according to the case and project work.

t. Investigation: All necessary investigations were done at this institute. If special investigations are needed, patients were referred to higher laboratories at the cost of the patient without any reimbursement.

u. Research hypothesis:

1- Null Hypothesis (H₀)- Homoeopathic Medicines in LM potency are not effective in the treatment of Osteoarthritis.

2- Alternate Hypothesis (H1)-Homoeopathic Medicines in LM potency are very effective in the treatment of Osteoarthritis.

v. Whether any work on this project has started or not: not any known.

Data Collection

- Pre & post WOMAC scoring
- Demographic and clinical details
- Miasmatic interpretation
- Remedy distribution

Statistical Technique

- Paired t-test applied using SPSS ver. 16
- Outcome measure: WOMAC score differences

Observations
The data obtained was sorted out in the form of followings charts –

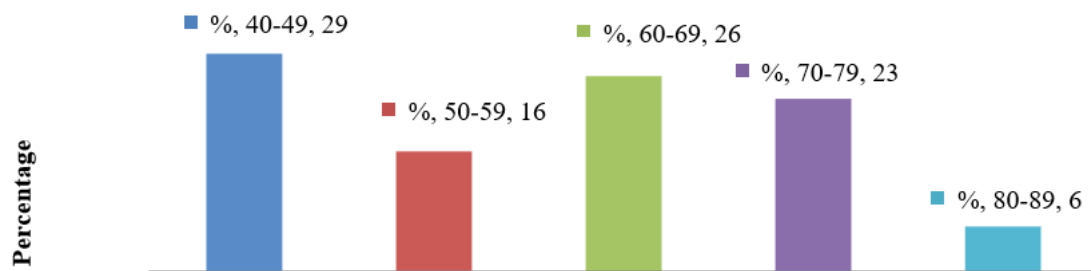


Chart No. 1. Percentage distribution of 100 cases of Osteoarthritis acc. to Age.

As shown in above chart out of 100 cases, incidence of Osteoarthritis was reported maximum among 40-49 yrs age group i.e. 29%, followed by 60-69 yrs age group i.e. 26%, 70-79 yrs age group i.e. 23%, 50-59 yrs age group i.e. 16%, whereas minimum was reported among 80-89 yrs, i.e. 6%

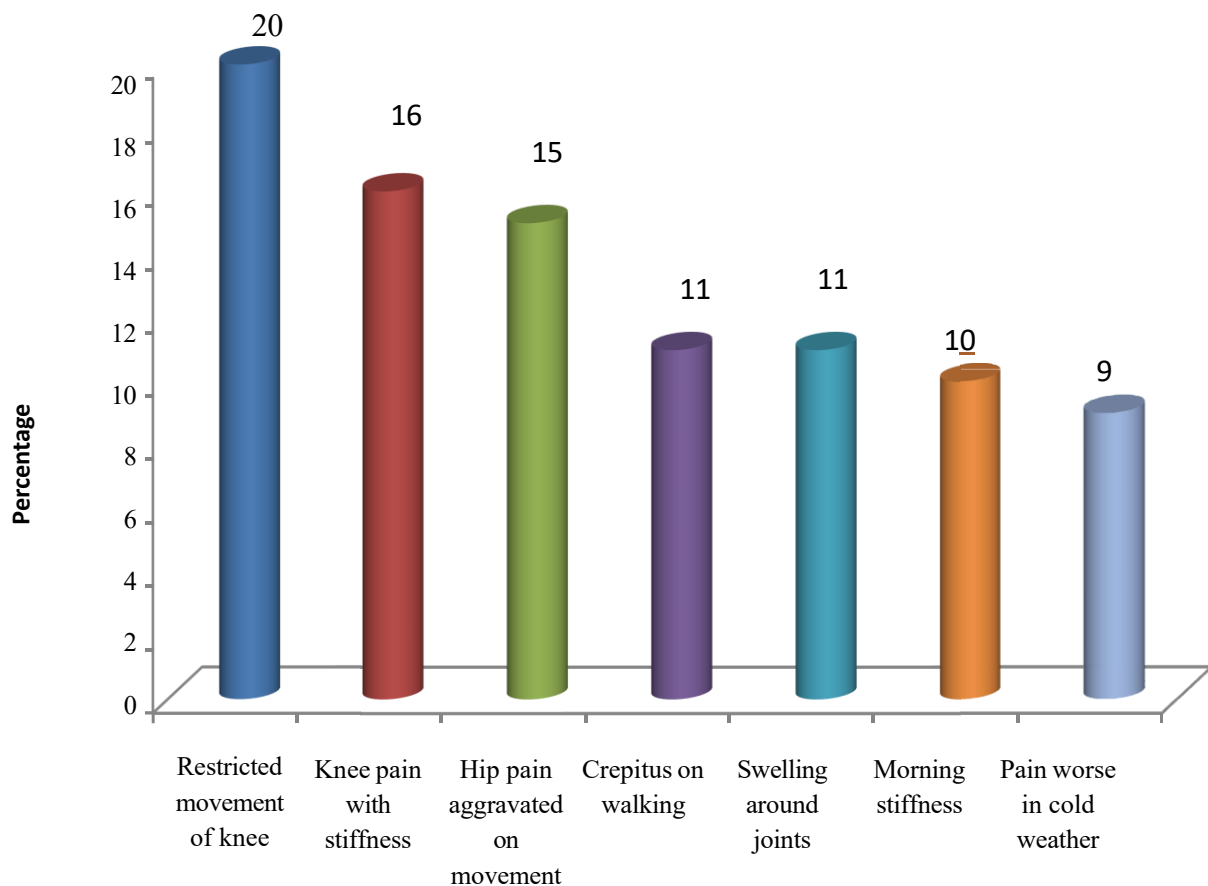


Chart No. 2. Percentage distribution of 100 cases of Osteoarthritis acc. to the prevalence of the presenting complaints.

As shown in above chart out of 100 cases, Restricted movement of knee was the most common presenting complaint found in 20% cases, followed by knee pain (16%), hip pain (15%), swelling around joints (11%), crepitus (11%), morning stiffness (10%), pain worse in cold weather (9%), as compared to difficulty climbing stairs which was found only in 8% cases.

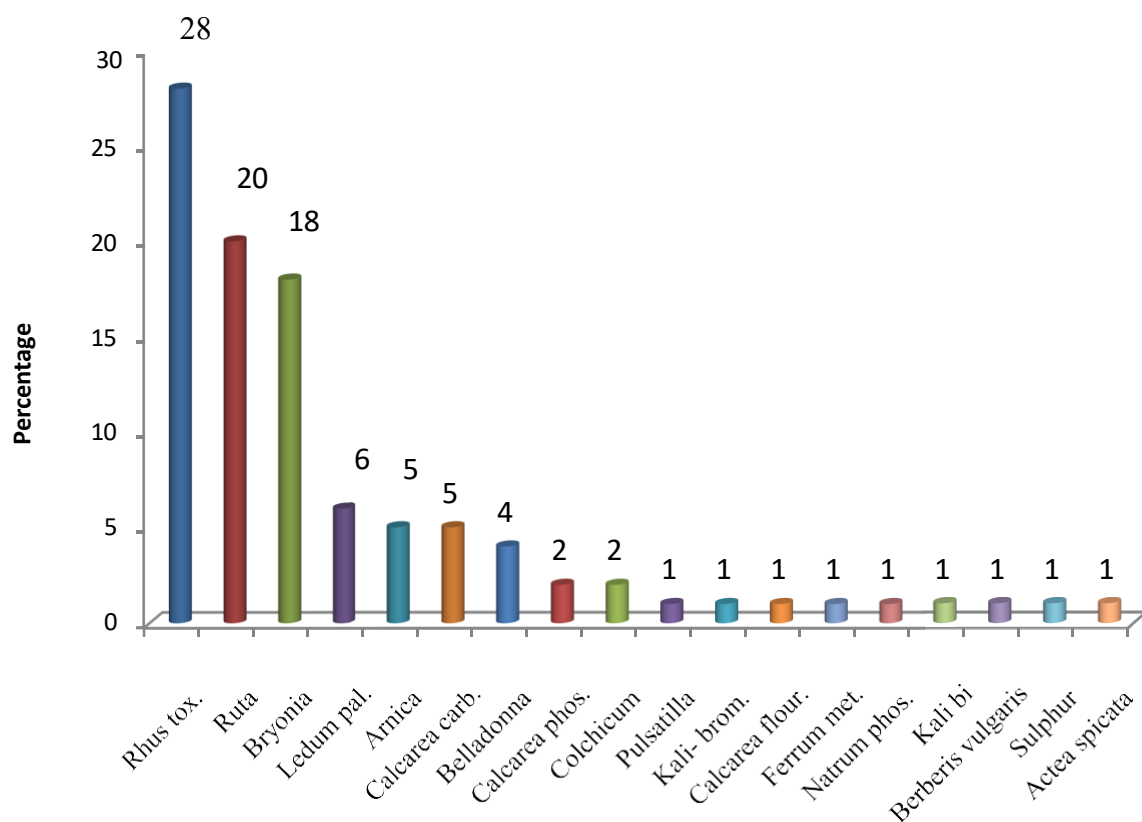


Chart No. 3. Percentage distribution of 100 cases of Osteoarthritis acc. to the prescribed medicine. As shown in above chart out of 100 cases, it was clearly indicated that Rhustox. Was the highly prescribed medicine given in 28% cases among the other medicines, followed by Ruta (20%), Bryonia (18%), Ledum pal (6%), Calcarea carb (5%), Arnica (5%), Belladonna (4%), Calc. phos. and Colchicum 2% each, Puls., kali- brom., Clac. flour., Fer. met., Nat. phos., kali- bi., Berberis vulg., Sulphur and Act. spicata 1% each.

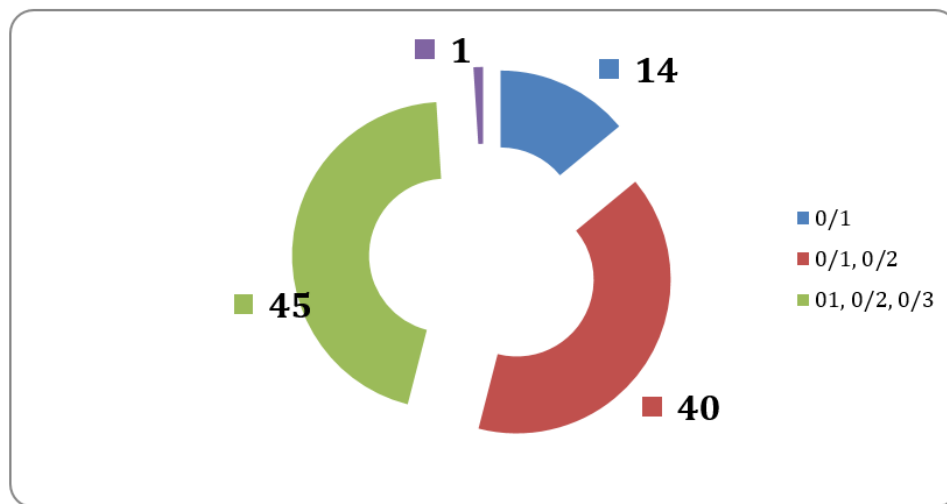


Chart No. 4. Percentage distribution of 100 cases of Osteoarthritis acc. to the potency used.As shown in above chart out of 100 cases, it was found that to achieve the improvement LM potencies were highly repeated till 0/3 in 45% cases, followed by till 0/2 in 40% cases, till 0/1 in 14% cases and least till 0/4 in only 1 case.

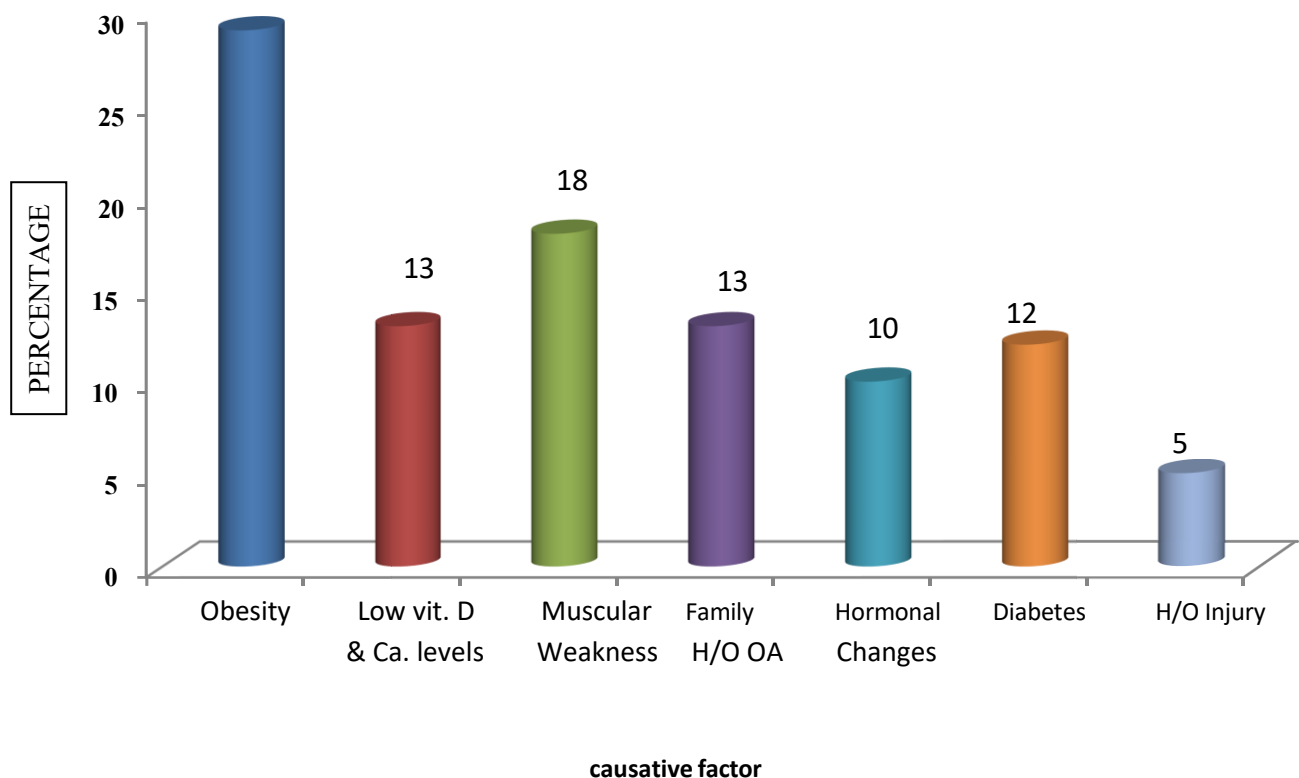


Chart No. 5. Percentage distribution of 100 cases of Osteoarthritis according to their causative factors.As shown in above chart out of 100 cases, it was clearly indicated that obesity was found in highest number of cases (30%) as causative factor, followed by muscular weakness (18%), low vit. D & ca. levels (13%), family H/O OA (13%), diabetes (12%), and least as H/O previous injury (5%).

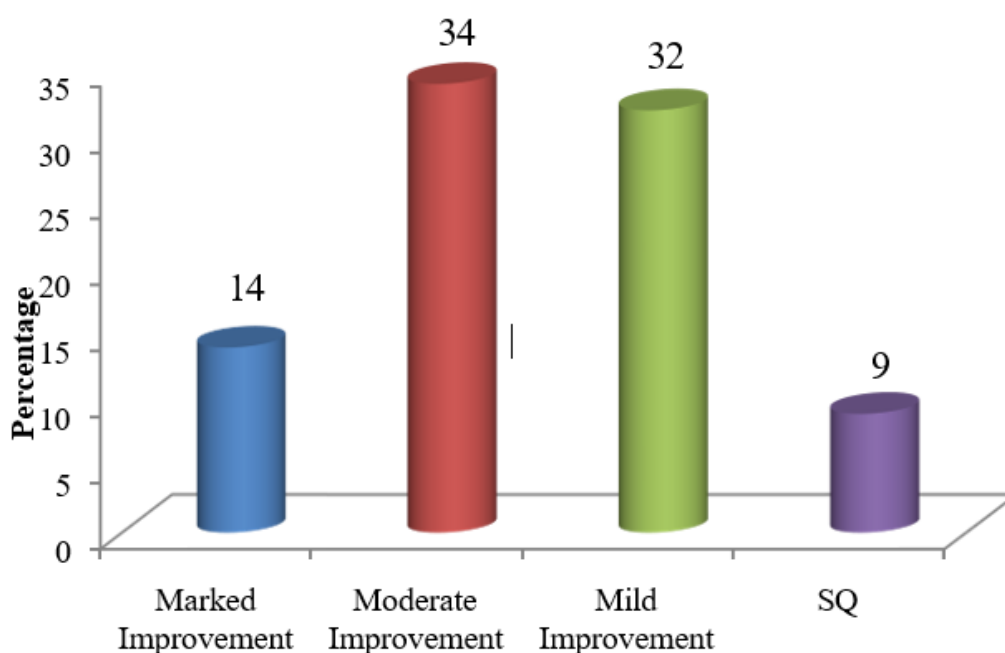


Chart No. 6. Percentage distribution of 100 cases of Osteoarthritis according to outcome assessment as per WOMAC. As shown in above chart out of 100 cases, 34 cases (44%) showed mild improvement, 32 cases (32%) showed moderate improvement, 14 cases (14%) showed marked improvement and 9 cases (9%) showed SQ, at the last follow-up.

STATISTICAL ANALYSIS & RESULTS

For assessing the improvement WOMAC – Western Ontario and McMaster Universities Osteoarthritis Index was used. Scores before treatment and after treatment of studied group was compared. The analysis was conducted through the software SPSS (ver.16) applying Paired-t test.

A paired t-test was conducted to ascertain the effectiveness of homoeopathic medicines in treatment of osteoarthritis from the age of 40 and above via comparing before & after scores collected from the studied sample.

	Paired Differences					
	Mean	Std. Deviation	Std. Error Mean	t	df(n-1)	P value
Pair Before - After	4.57	4.367	0.436	10.481	99	0.001

Here the Calculated value of t-statistics is 10.481 while its tabulated value at 5% level of significance for 99 degree of freedom is 2.00 where P value less than 0.001. Since calculated value of t statistic i.e. 10.481 is greater than its tabulated value, null hypothesis stands rejected while alternative hypothesis is accepted, at 5% level of significance & P value 0.001. Hence, Homoeopathic medicines in LM potency are effective in the treatment of Osteoarthritis from the age of 40 or above.

Discussion:

This discussion on various aspects observed and recorded in the study has been given below-

Age Group incidence: In this study out of 100 cases, incidence of Osteoarthritis was reported maximum among 40-49 yrs age group i.e. 29%, followed by 60-69 yrs age group i.e. 26%, 70-79 yrs age group i.e. 23%, 50-59 yrs age group i.e. 16%, whereas minimum was reported among 80-89 yrs, i.e. 6%

Presenting Complaints: In this study out of 100 cases, restricted movement of knee was the most common presenting complaint found in 20% cases, followed by knee pain (16%), hip pain (15%), swelling around joints (11%), crepitus (11%), morning stiffness (10%), pain worse in cold weather (9%), as compared to difficulty climbing stairs which was found only in 8% cases.

Prescribed medicine: In this study out of 100 cases, it was clearly indicated that Rhustox. Was the highly prescribed medicine given in 28% cases among the other medicines, followed by Ruta (20%), Bryonia (18%), Ledum pal (6%), Calcarea.carb(5%), Arnica (5%), Belladonna(4%), Calc. phos. and Colchicum 2% each, Puls., kali- brom., Clac. fluor., Fer. met., Nat. phos., kali- bi., Berberis vulg., Sulphur and Act. spicata 1% each.

Potency Used: In this study out of 100 cases, it was found that to achieve the improvement LM potencies were highly repeated till 0/3 in 45% cases, followed by till 0/2 in 40% cases, till 0/1 in 14% cases and least till 0/4 in only 1 case.

Causative factors: In this study out of 100 cases, it was clearly indicated that obesity was found in highest number of cases (43%) as causative factor, followed by muscular weakness (18%), low vit. D & ca. levels (13%), family H/O OA (13%), diabetes (12%), and least as H/O previous injury (5%).

Outcome on the basis of % of improvement:In this study out of 100 cases, 34 cases (44%) showed mild improvement, 32 cases (32%) showed moderate improvement, 14 cases (14%) showed marked improvement and 9 cases (9%) showed SQ, at the last follow-up.

Conclusion

This study demonstrates that individualized homoeopathic treatment using LM potencies can produce significant improvements in osteoarthritis symptoms, including pain reduction, improved joint mobility, and enhanced functional ability. The combined role of miasmatic interpretation, individualized remedy selection, and LM potency repetition appears to play a crucial role in achieving favorable outcomes. Homoeopathic medicine *Rhustox* is found the most frequently indicated medicine. These findings support the integration of homoeopathy as an effective, safe, and holistic therapeutic option for managing osteoarthritis.

Future References

This study should be conducted with sufficiently large sample size for considerably long duration.

References

1. Harrison's principles of internal medicine. New York: McGraw-Hill, Cop; 2012
2. Vinay Kumar, Abul K Abbas, John C Aster. Robbins Basic Pathology. 9th ed. Vol. 1. Canada: Elsevier; 2019. 1 vols.
3. Panel GP Dobson *et al.* Defining the osteoarthritis patient: back to the future. *Osteoarthritis and Cartilage*. Volume 26, Issue 8, August 2018, Pages 1003-1007.
4. Abramoff B, Caldera FE. Osteoarthritis. Medical Clinics of North America. 2020 Mar; 104(2):293–311. doi:10.1016/j.mcna.2019.10.007.
5. Dennis McGonagle, Ai Lyn Tan *et al.* The anatomical basis for a novel classification of osteoarthritis and allied disorders. Journal of Anatomy. 2010 Jan 7; 216(3):279–291. doi: [10.1111/j.1469-7580.2009.01186.x](https://doi.org/10.1111/j.1469-7580.2009.01186.x)
6. Dopson GP. Defining the osteoarthritis patient: back to the future. Osteoarthritis and Cartilage. Volume 26, Issue 8, August 2018, Pages 1003-1007
7. Springer BD. Management of the Bariatric Patient. What Are the Implications of Obesity and Total Joint Arthroplasty: The Orthopedic Surgeon's Perspective? J Arthroplasty. 2019 Jul;34(7S):S30-S32. [PubMed]
8. Elsiwy Y, Jovanovic I, Doma K, Hazratwala K, Letson H. Risk factors associated with cardiac complication after total joint arthroplasty of the hip and knee: a systematic review. J Orthop Surg Res. 2019 Jan 11;14(1):15. [PMC free article] [PubMed]
9. Lundgren-Nilsson Å, Dencker A, Palstam A, Person G, Horton MC, Escorpizo R, Küçükdeveci AA, Kutlay S, Elhan AH, Stucki G, Tennant A, Conaghan PG. Patient-reported outcome measures in osteoarthritis: a systematic search and review of their use and psychometric properties. RMD Open. 2018;4(2):e000715. [PMC free article] [PubMed]
10. Manlapaz DG, Sole G, Jayakaran P, Chapple CM. Risk Factors for Falls in Adults with Knee Osteoarthritis: A Systematic Review. PM R. 2019 Jul;11(7):745-757. [PubMed]
11. GBD 2019: Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. <https://vizhub.healthdata.org/gbd-results/>.
12. Kisand K, Tamm AE, Lintrop M, Tamm AO. New insights into the natural course of knee osteoarthritis: early regulation of cytokines and growth factors, with emphasis on sex-dependent angiogenesis and tissue remodeling. A pilot study. Osteoarthritis Cartilage. 2018 Aug;26(8):1045-1054. [PubMed]
13. Collins NJ, Hart HF, Mills KAG. Osteoarthritis year in review 2018: rehabilitation and outcomes. Osteoarthritis Cartilage. 2019 Mar;27(3):378-391. [PubMed]
14. Afzali T, Fangel MV, Vestergaard AS, Rathleff MS, Ehlers LH, Jensen MB. Cost-effectiveness of treatments for non-osteoarthritic knee pain conditions: A systematic review. PLoS One. 2018;13(12):e0209240. [PMC free article] [PubMed]
15. Alrushud AS, Rushton AB, Bhogal G, Pressdee F, Greig CA. Effect of a combined programme of dietary restriction and physical activity on the physical function and body composition of obese middle-aged and older adults with knee OA (DRPA): protocol for a feasibility study. BMJ Open. 2018 Dec 14;8(12):e021051. [PMC free article] [PubMed]
16. Long H, Liu Q, Yin H, Diao N, Zhang Y, Lin J *et al.* Prevalence trends of site-specific osteoarthritis from 1990 to 2019: Findings from the global burden of disease study 2019. Arthritis Rheumatol 2022; 74(7): 1172-1183.

17. Cieza A, Causey K, Kamenow K, Wulf Hansen S, Chatterji S, Vos T. Global estimates of the need for rehabilitation based on the Global Burden of Disease study 2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet*. 2020 Dec 19; 396(10267): 2006–2017.
18. Mahajan A, Verma S, Tandon V; Update Article; journal of association of physician of India •VOL. 53 • JULY 2005;www.japi.org p;636-41.
19. Majoosi A I, KamilusSanah. (Urdu translation by Kantoori GH) New Delhi: IdaraKitabusShifa. 2010; 543-46.
20. Razi Z. Kitab al-Hawi. Vol 11th. Central Council for Research in Unani Medicine, New Delhi,2004; 75.
21. orreia W, Reis JH, Pires E Albuquerque RS, de Paula Mozela A, de Souza EB, Maia PV, Barretto JM. Outcomes after knee arthroplasty in extra-articular deformity. *IntOrthop*. 2019 Sep;43(9):2065-2070. [[PubMed](#)]
22. Tashjian RZ, Chalmers PN. Future Frontiers in Shoulder Arthroplasty and the Management of Shoulder Osteoarthritis. *Clin Sports Med*. 2018 Oct;37(4):609-630. [[PubMed](#)]
23. Motiwala, F.F.: Kundu, Tapas; Bagmar, Kamlesh; Kakatkar, Vijay: Dhole, Yogesh:. Effect of Homoeopathic Treatment on Activity of Daily Living (ADL)in Knee Osteoarthritis: A Prospective Observational Study, *Indian Journal of Research in Homoeopathy*, ISSN number- 0974-7168, E-ISSN number 2320- 7094, Volume number-10. Issue number-3, July-September 2016, Published by CentralCouncilforResearchin Homoeopathy, NewDelhi, India, Pagenumber - 182 to 187.
24. Rajgurav, Atul B.; Aphale, Parth To Study the Efficacy of Rhustox in Management of Cases of Osteoarthritis of Knee Joint, *International Journal of Research in Orthopaedics*, ISSN number 2455-4510. January-February 2017, Volume number-3, Issue number-1. Published by Medlip Academy, Page number-54 to 60.
25. Singh,Kumar,Atul,Dr.;Bhindra,Ashok,Dr.,Meena,Ajay,Dr.;The Efficacy of Homoeopathic Medicines in Management of Osteoarthritis with the help of Repertories, *Advancements In Homoeopathic Research*, ISSN number - 2456-3688,Volumenumber-3,Issuenummer-1,February2018-April2018, Published by HFY Enterprises, New Delhi-110002, Page number-30 to 43.
26. Bhattacharyya S, ChatterjeeC, Saha S, NaskarS, Bhattacharya P, AlamSM, Sengupta S, Ahamed S, Shaikh AR, Koley M, Ghosh P, Mukherjee SK. Individualized Homeopathic Medicinesin the Treatment ofKnee Osteoarthritis: Double-Blind, Randomized, Placebo-Controlled Feasibility Trial.*PubMed*, *Homeopathy*.2023Sep25.doi:10.1055/s-0043-1771025.ISSNNo.1475-4916, PMID:37748512.
27. Kumar N, Iyer N. An observational study on the effect of individualised homoeopathic medicine administered based on totality of symptoms vis-à-vis personality in cases of osteoarthritis knee. *Indian J Res Homoeopathy*, ISSN number- 0974-7168,E-ISSNnumber2320-7094,Volume15,IssueNO2(2021), 2021;15(2):103-112.doi:10.4103/ijrh.ijrh_86_19.
28. L De Schepper. LM potencies: one of the hidden treasures of the sixth edition of the Organon. *Br Homeopath J* 1999; 88(03): 128-134 DOI: 10.1054/homp.1999.0309
29. U. C. Adler, A. T. Cesar, M. S. Adler, A. Alves, E. N. Garozzo, W. M. P. Galhardi , A. E. Padula, I. C. Souza. LM or Q Potencies- Review of Their Use Over a Fifteen-Year Period. *Homœopathic Links* 2005 (Posology); 18(2): 87-91. DOI: 10.1055/s-2005-837714.
30. Patel RP. My experiments with 50 millesimal scale potencies: 5th Edition. Hahnemann Homoeopathic Pharmacy: Dr. Ramanlal P. Patel; 1998.