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## A REVIEW: ROLE OF HOMOEOPATHY IN THE MANAGEMENT OF GOUT

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### **ABSTRACT**

The term "gout" is commonly used to refer to painful arthritis, but gouty arthritis is only one manifestation of gout. The accumulation of uric acid in the joints is the cause. Joint inflammation is the result of uric acid build-up. The amount of uric acid in our bodies increases as the number of purines in our diets increases. The creation of uric acid is a result of purines. This contribution aims to offer a straightforward method based on general introduction, the causes, justifications for studying, the efficacy, and the rules of homeopathic medicine. Relevant studies were identified by a comprehensive literature search in electronic databases, a reference list of relevant papers. Randomized controlled trials comparing individualized homeopathic treatment strategy with placebo were eligible and case report. A comprehensive computerized literature search was carried out to find clinical research Articles. Pub med, Cochrane controlled register of trials (CENTRAL), and two specialty databases called Core-Hom and Cam-Quest, Medline, Google scholars, science direct, and Thieme – E-journal of homeopathy were searched extensively. Only human-based clinical trials were included in this review. Animal trials, and pilot studies were not included. Clinical trials (randomized or non-randomized), and observational studies were included in this study. All randomized doubleblind placebo-controlled prospective observational clinical research articles were included. Nine papers met the criteria for my study. The four are randomized trials, three are clinical trials in which two are case reports on hyperuricemia, which are treated with homeopathic medicine & one is an observational trial.

**KEYWORDS:** Alternative medicine, Homoeopathy, Hyperuricemia, Gout, Uric acid.

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# INTRODUCTION:

Extraordinary joint aggravation happens as white blood cells inundate the uric acid crystals, causing pain, heat, and redness of the joint tissues. The term "gout" is commonly used to describe this difficult type of arthritis; however, gouty joint inflammation is only one symptom of gout. Hyperuricaemia is a prerequisite for the deposition of urate in synovial and other tissues.

Uric acid is the end product of purine metabolism. There are two pathways involved in purine synthesis. Gout is the most affective inflammatory arthritis in men than females and appears to be increasing in both prevalence and incidence. These conditions are caused by hyperuricemia and are associated with the deposition of monosodium urate crystals in the periarticular tissues and joints, causing inflammation and eventually tissue damage.

Gout is a well-understood rheumatic disease; management is often less than optimal. Hyper-uricemia, Uric acid and gout both are ending products of the breakdown of exogenous and endogenous purine. Uric acid is measured in the form of sodium urate in plasma, so we called this disease hyperuricemia. These excesses may be caused by urate overproduction or underexcretion.

## **Pathogenesis:**

Inflammatory arthritis is the group of gout i.e., which is prompted by the crystallization of uric acid inside the joints and is constantly connected through hyperuricemia. Acute gout is characteristically

recurrent, starting one of the greatest painful situations. Tophaceous chronic gout commonly develops after years of acute recurrent gout; however, tophi intermittently can be a fragment of the early appearance. In addition to the morbidity, i.e., attributable to gout, this syndrome is linked with disorders such as insulin resistance disorder, nephropathy, hypertension, and syndromes related to increased cell turnover.

## **Diagnosis:**

High Blood Pressure, obesity, chronic renal failure, and diabetes are often linked with this disease. If gout is supposed, the target of the affected joint must be performed to approve the occurrence of intracellular destructively birefringent spike shape crystals by a polarized light microscopic study. The quick onset of action swelling and severe pain within 7–13 hours is extremely indicative of crystal inflammation. Nevertheless, these are not exact for gout. Characteristic pedigree, an association of the first metatarsophalangeal joints, has greater specificity and sensitivity, but it is not conclusive without crystal identification. Identifying crystals of monosodium urate may be probable in inter-critical phases.

Uncertainty-infected arthritis is supposed, gram staining and culture of synovial fluid must be accomplished, even if monosodium urate crystals are present. In certain patients, identification of renal uric acid elimination is beneficial for the management and evaluation. Radiography is not supportive in confirming the diagnosis of the acute and chronic conditions of this disease, while it may be convenient for different diagnoses and it may show some specific changes in chronic gout.

### **Treatment:**

Homeopathy deals with the disease in a holistic way for health and healing. Homoeopathic system of medicine deals with an individual's overall physical, mental, spiritual, and emotional well-being before recommending treatment.

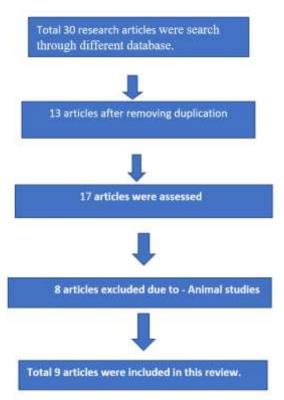


Fig 1: Flow chart of the study

Individualized homeopathy as an adjunct in the treatment of gout Sahani A et al; In a randomized, double-blind, placebo-controlled trial, the effects of individualized homeopathic remedies were compared with placebo medication in 60 patients with mild to moderate pain as a result of gout, as an adjunct to conventional treatment. There were no clinically relevant or statistically significant changes in the active quality of life score. Other subscales, notably those

measuring severity, indicated relative improvements, but the extent of the effects was small. There were no differences between the groups for other measures. placebo in improving the quality of life of patients with gout as an addition to conventional treatment in primary care. Homoeopathy is known to control uric acid diathesis and is also useful in acute attacks.

#### **RESULT:**

Nine studies were found which met the inclusion/exclusion criteria. Data extraction could be performed from all randomized controlled trials (RCTs). The key data of all included studies are summarized as follows

Sabari Rajan et al: In the case of gout Homoeopathic medicines work by reducing the uric acid overproduction by the body and accelerating the removal of this waste product from through the kidneys. It helps in controlling the pain during the acute attack of gout and helps in preventing the recurrence of such episodes. Benzoic acid is found to be one of the best remedies for gout.

According to Dr. Hahnemann miasms are the fundamental cause of every disease so as in the case of hyperuricemia and gout. Miasmas dispose the body towards a certain diathesis. The patient develops hyperuricemia due to uric acid or lithic diathesis. The patient develops a tendency to accumulate uric acid crystals in his body due to his constitutional dyscrasia.

Aman Deep et al: A prospective randomized single-blind placebo-controlled study was conducted to evaluate improvement in the SUA level & VAS score of pain. A total of 162 patient was screened for this study in which 110 patients were enrolled and from this one group is the placebo group (n=55) and the other is indicated homeopathic medicine group (n=55). Patient of both groups was assessed for SUA & VAS score from baseline to the end of every three months. As per the result, the medicinal group was a higher reduction of SUA & VAS scores than the placebo group. The result of this study shows the effectiveness of homeopathic medicine in the management of hyperuricemia in primary gout.

Chintamani Nayak et al: Individualized homeopathic medicines and Urtica urens mother tincture in treatment of hyperuricemia: an open, randomized; The clinical effectiveness of three treatment regimens - individualized homeopathy (IH), Urtica urens mother tincture (UUMT), and both (IH + UUMT) along with lifestyle modifications in a sample of 90 patients with hyperuricemia. Groups were comparable at baseline. Reductions in serum uric acid over 3 months were comparatively higher (p=0.057) in the UUMT group than others, however, the differences were narrowed over 6 months (p=0.119). Per protocol analysis of serum uric acid level revealed a similar trend of significantly higher reduction in the UUMT group than the other two (3 months: p=0.001; 6 months: p=0.007). No significant differences existed in reductions of GAQ2 scores among the three groups. Few significant differences were detected in MYMOP scores over 3 months favoring IH against others (symptom 2, p=0.001 and wellbeing score, p=0.002), and also over 6 months favoring IH + UUMT against others (symptom 1, p<0.001).

Smulders H et al: In order to evaluate how gout patients responded to homoeopathic simillimum treatment, a treatment group was compared to a placebo group in this double-blind study. 30 patients in all were chosen. Each patient had an equal chance of being chosen for either group when they were randomly split into two groups. A box was filled with fifteen pieces of paper labeled "treatment" and fifteen pieces of paper labeled "placebo." Calcarea carbonica, Carcinosinum, Lac caninum, and other medications are used in accordance with each individual's case.

Gautam P et al: A case of a 51-year-old man, the lean, thin man reported in the Outpatient Department of Regional Research Institute for Homoeopathy, Agartala on 6 June 2019, with a complaint of on and off cramping pain in the right groin and burning during micturition in the past 2 weeks with uninterrupted – clear urine flow. The patient was a known case of renal calculi with a history of right-sided renal colic twice in the past 4 months for which he underwent a few investigations on the physician's advice and took conventional treatment also with temporary relief. The patient did not suffer from any other major illness in the past, except for some gastric disturbances. Family history was not significant. The patient was a government employee belonging to a middle-class

socioeconomic group. He consumed alcohol occasionally. The patient was already diagnosed case of hyperuricemia, and serum uric acid was tested again to know about the present status. His investigations revealed the following significant findings: Serum uric acid was 8.0 mg% (21 May 2019). Urine examination revealed 8–10 red blood cells/ high power field (HPF) and trace proteins (25 April 2019). Ultrasonography – kidney, ureter, and bladder were suggestive of right renal tiny echogenic foci (0.28 cm) near the lower pole probably renal calculus (1 February 2019).

After repertorisation, the top medicines were Lycopodium, Nux vom, and Merc. Sol, Pulsatilla, and Sepia. After carefully analyzing the mental and physical generals of a patient, considering the reportorial result, and referring back to homeopathic Materia medica similimum was prescribed. The patient was hot and Lycopodium has uric acid diathesis which further confirmed the selection of medicine. Individualized homeopathic treatment was started with a single dose of Lycopodium 30 followed by a placebo following the law of minimum dose.

First prescription (06 June 2019): Lycopodium 30/1 dose was prescribed on the basis of reportorial analysis.

Improvement in the patient started immediately after medicine in appropriate potency was given to the patient Improvement was subjective in terms of relief in overall signs and symptoms such as burning during defection disappearing completely, marked reduction in bloating and flatulence, as well as objective as evident by the expulsion of calculi within few days followed by a gradual decline of serum uric acid levels from 8.8 mg% to 6.2 mg%.

Sharma SP et al: In clinical research, they were assigned 60 patients to see homeopathic medicine: 1. Colchicum: It is the primary medicine given to gout patients. It is good for the treatment of chronic cases. It is given to patients who suffer from pain in the big toe. The pain is unbearable when the affected area is touched. The region turns, red and swollen. In these patients, the pain usually starts on the left side. 2. Ledum Pal: It is for patients who suffer from gout pain traveling. The pain is likely to start at the patient's feet and travels toward the knees. The patient will not be able to bear external warmth. The patient feels better with the cold application. 3. Benzoic Acid: This medicine is for patients who suffer from gout along with offensive urine. The odour of the urine is intolerable. Sometimes the urine appears unusually brown. There is a cracking sound in the joints. These medicines are helpful in the management of gout cases in homeopathy treatment.

Bala R et al: The case is a one-sided disease, that is, a disease in which symptoms are very few, which got cleared up with antipsychotic drugs. Thuja and Medorrhinum were prescribed at the beginning of the case based on the guidelines for one-sided diseases mentioned in the Organon of Medicine, and the patient later responded very well to Bryonia alba in higher potencies to lower the level of serum uric acid significantly, along with long-lasting improvements in her signs and symptoms.

Saha S et al: An open-label prospective observational trial for assessing the effect of homoeopathic medicines in patients suffering from gout. In a research sum of 55 patients were, to begin with, screened based on passage of no less than one episode of fringe joint or bursal expansion, torment or delicacy, and serum uric acid level of which, 45 were evaluated for qualification. No samples went through radiological assessment or synovial liquid assessment, as they were not accessible at the foundation. After the third month, the ACR EULAR gout score dropped from 8 in 9 patterns to 1.6. Homeopathic drugs were utilized according to the entirety of side effects, at the gauge, Benzoicum Acidum was endorsed in 8 patients (25%) and Lachesis mutes, Lycopodium clavatum, Pulsatilla nigricans, and Rhus Toxicodendron were recommended in 3 patients (9.4%) each. Benzoicum aecidium was also the most commonly used medication in the resulting remedies, followed by Colchicum autumnale.o Benzoicum aecidium is the most well-known. It was seen that many related side effects of the patient, for example, sharpness, restlessness, draining per rectum, clogging, hack, and tingling (MYMOP2, Symptom 2), improved, proposing Homeopathy as an all-encompassing consideration restorative technique. This study evoked the expected impact of individualized homeopathic prescriptions in lessening the serum uric acid as well as progress in action and prosperity of patients with gout

#### **DISCUSSION:**

Randomized, placebo-controlled, double-blind trials and case reports may be the best ways to prove the effectiveness of various therapies. However, if the results of the clinical trials are not reproducible in subsequent clinical trials, then they will not have any clinical significance. Reproducibility is still challenging; there are reasons behind it. Also, the conduct of clinical trials will remain an unending process. Large patient sample sizes and a longer duration of clinical trials can predict the effectiveness of study drug treatments, especially when the disease is chronic. Homeopathic ultra-dilutions are still not understood in current pharmacological concepts. This may lead to disbelief about this therapy among some patients. However, until now, more than 200 homeopathic clinical trial research articles have been published which have provided positive conclusions about the effectiveness of homeopathy. Many clinical trials that had provided positive results earlier failed to produce similar results in subsequent trials. Homeopathic prescriptions differ as per the knowledge and judgment of the prescriber. This will affect the study's results. Also, this is the biggest challenge or limitation in homeopathic clinical trials. Another challenge is the patient's willingness to participate in the trial, as there is always the possibility of receiving a placebo treatment. Every patient would like to get the best possible treatment—is it correct and fair? Yes, it is! And this affects us in the following way. Many times, patients come to a homeopath after exhausting all their treatment resources, or after they have tried many practices of medicine for the treatment of their gout pain. It is challenging to get such a population for clinical trials, even though that population could be the best sample size to see the homeopathic treatment for gout pain. Researchers should focus more on practice-based research studies. Gout cases treated with homeopathy need to be published worldwide with evidence. Openlabel clinical trials should also be conducted. These methods will give new input into homeopathic research/ treatment approaches and will improve the quality of the homeopathic practice of medicine. Sufficiently large sample sizes are a precondition for conclusive results. Guidelines and expert recommendations on the conduct of clinical trials with limited resource and infrastructure, as in individualized homeopathy are available. We should stay close to real homeopathic practice and should try to produce robust results with methodological rigor and thereby show the true effects of this therapy.

## **LIMITATIONS:**

Any individual taking interest in gout sufferings is likely to demonstrate some therapeutic improvement by virtue of apparent interest. However, CAM approaches including homeopathy can demonstrate clinical results clearly. The mechanism by which homeopathy worked could be described as 'systemic'. However, the evidence base contains too few trials as well as trials resulting in contradictory findings which preclude any definitive summary.

#### **CONCLUSION:**

The studies reviewed, overall, showed many flaws in design and there were few studies to review. The present review found that homeopathy was superior to placebo in one randomized clinical trial. In no study was homeopathy found to be less effective than placebo in treating gout, or harmful. Two prospective observational studies demonstrated improvement in patients receiving homeopathic care. Given the insufficient quality and quantity of the literature, further research is warranted to better investigate the effectiveness of homeopathic treatment of gout.

## **CONFLICT OF INTEREST STATEMENT:**

None declared.

# **REFERENCES:**

1.Sahani A, Banerjee A, Kumar A, Kumari S. Individualized homeopathy as an adjunct in the treatment of gout—a randomized placebo controlled trial. Allgemeine Homöopathische Zeitung. 2017 Mar;262(02):R07-03.

- 2. Deep A, Kumar A. Homoeopathic management of hyperuricemia in primary gout: Arandomized single blind placebo controlled study. International Journal of Homoeopathic Sciences 2020.;4:73-7.
- 3. Rajan SS, Shibina K. A case of gout trated with Homoeopathic constitutional remedy. International Journal of Homoeopathic Sciences. 2020;4:365-8
- 4. Nayak C, Pattanaik N, Chattopadhyay A, Misra P, Bhar K, Michael J, Koley M, Saha S. Individualized homeopathic medicines and Urtica urens mother tincture in treatment of hyperuricemia: an open, randomized, pragmatic, pilot trial. Journal of Complementary and Integrative Medicine. 2020 Oct 20;18(3):599-608.
- 5. Smulders H. The homoeopathic simillimum treatment of acute arthritis in primary gout in terms of the illness intrusiveness scale, blood uric acid levels using the uricase conversion method as well as the acupulse homeostat machine
- 6. Gautam P. A case report of hyperuricaemia with nephrolithiasis treated with homoeopathy. Indian J Res Homoeopathy [serial online] 2021 [cited 2022 Aug 19]; 15:147-54. Available from: https://www.ijrh.org/text.asp?2021/15/2/147/319612
- 7. Bala R, Srivastava A. Case Report on Hyperuricemia Presenting as One-Sided Disease. Homœopathic Links. 2019 Jun;32(02):105-11.
- 8. Saha S, Sarkar P, Chattopadhyay R, Saha S. An open-label prospective observational trial for assessing the effect of homoeopathic medicines in patients suffering from gout. Indian J Res Homoeopathy 2019; 13:236-43.
- 9. Sharma SP, Ransing SS. Homeopathic Management of Gout. Journal of Medical and Pharmaceutical Innovation. 2019 Nov 18;6(31).
- 10. Ralston, S. H., Penman, I. D., Strachan, M. W. J., & Hobson, R. (Eds.). (2018). Davidson's principles and practice of medicine (23rd ed.). Elsevier Health Sciences.
- 11. <u>Textbook of Pathology Harsh Mohan</u>
- 12. https://jasn.asnjournals.org/content/17/4 suppl 2/S69.short
- $3. \underline{https://scholar.google.com/scholar?hl=en\&as\_sdt=0\%2C5\&q=Higher+triglyceride+level+predicts}\\ \underline{+hyperuricemia\%3A+A+prospective+study+of+6-year+follow-up\&btnG=}$
- 14.https://journals.lww.com/menopausejournal/Abstract/2014/11000/Aging, not menopause, is ass ociated with higher.9.aspx
- $15. \underline{https://scholar.google.com/scholar?hl=en\&as\_sdt=0\%2C5\&q=Effect+of+Sida+corymbosa+leaf+extract+on+serum+uric+acid\%2C+urea+and+creatinine+levels+of+alloxan-induced+diabetic+albino+wistar+rats\&btnG=$