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# A retrospective observational study on the individualized homoeopathic treatment of gout

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#### Abstract

**Background:** The likelihood of an individual developing gout increases with higher serum urate concentration. The severity and duration of hyperuricemia are closely related with the complexities of gout.

**Aim:** To evaluate the effectiveness of individualized homoeopathic treatment in gout patients.

**Objective:** The objective of this study is to compare the variation in serum uric acid levels and Gout assessment (GAQ 2.0) scores of gout patients obtained before and after the individualized homoeopathic treatment.

**Methods:** This was a retrospective observational study guided through the clinical case records of 30 gout patients included with their laboratory reports of serum uric acid levels and GAQ 2.0 scores throughout the treatment from White Memorial Homoeopathic Medical College and Hospital.

**Results:** Mean reduction for serum uric acid (4.57) and GAQ 2.0 score for each set of questions (177.83, 68.3, 68.6, 310, 199) were considerable when compared with the values of the before treatment of gout. Males (73%) were commonly affected when compared with females (27%). The common age group affected was between 28 and 49 years. And the most frequently prescribed medicine was colchicum autumnale (N=7).

**Conclusion:** This study reveals the positive impact on individualized homoeopathic treatment for gout patients after evaluating the significant variation in serum uric acid levels and GAQ 2.0 scores.

**Keywords:** GAQ 2.0 scores, gout, hyperuricemia individualized homoeopathic treatment, retrospective observational study, Serum uric acid levels

## Introduction

Gout is a purine metabolism disorder associated with hyperuricaemia. This is characterised by deposition of crystals of monosodium urate monohydrate in soft tissues especially in and around the joints of extremities resulting in inflammatory gouty arthritis <sup>[1, 2, 3, 4]</sup>. In adults, the normal serum concentration of uric acid generally falls within the range of 3-7 mg/dl. However, in women, the levels are slightly lower by approximately 1 mg compared to men <sup>[4]</sup>. Hyperuricemia, which is a key feature for gout defined as an increased plasma urate concentration exceeding 420 µmol/L (7.0 mg/dL). Gouty arthritis typically manifests as the initial attack after a prolonged period of elevated uric acid levels in the body, lasting anywhere from 20-40 years. The peak age for its onset in men is typically between 40-60 years, while in women, it often occurs after menopause <sup>[5]</sup>. Global estimation of gout occurrence is 2-6 times more in male than females <sup>[6]</sup>. Hyperuricemia is regarded as a hallmark for gout <sup>[7]</sup>.

Gout has a relatively high occurrence rate, affecting approximately 0.3% of the population <sup>[2]</sup>. The occurrence of gout is on the rise, particularly in developed countries, primarily due to dietary changes that involve consumption of purine-rich foods, high levels of saturated fats, fructose-containing beverages, and alcohol. Asian populations are particularly vulnerable to gout as their dietary patterns shift toward a more Western style. Gout predominantly affects men (with a ratio of 10:1) and is rare before young adulthood, except in cases where it indicates a specific genetic abnormality. It is also infrequent in premenopausal females. The majority, around 85-90% of gout cases, are considered idiopathic, meaning their cause is unknown. Men typically have higher levels of uric acid compared to women <sup>[3]</sup>. The initial gout attacks can be spaced apart by as much as 2 years and are typically managed by addressing the symptoms <sup>[11]</sup>.

# Materials and Methods Study design and setting

This is a single arm, retrospective, non-randomised observational study which was conducted on 30 patients with the diagnosis of gout at the outpatient department of White Memorial Homoeo Medical college and Hospital, Attoor. This trial was conducted over a duration of six months.

# Sample size

Minimum of 30 cases were taken as sample size satisfying the inclusion and exclusion criteria.

#### Inclusion criteria

Patient diagnosed with gout having high serum uric acid level (>7~mg/dL).

Age group 20 -70 years.

Patients of both sexes were included.

#### **Exclusion criteria**

Patients with any severe systemic illness were excluded. Patients taking other mode of treatment.

# Methodology

The retrospective study sample of 30 data collections were obtained from the case taking records and laboratory records of White Memorial Homoeopathic Medical college and Hospital, Attoor. Based upon the collected records, patients were both clinically and laboratorically diagnosed with gout. Each patient had a detailed case taking and a suitable homoeopathic medicine was selected by erecting proper totality of symptoms. Dose selection, potency selection and repetition of medicine was done according to the principles laid down in the Organon of medicine. Follow-up was done once in every 2 weeks or as per the need of the patient especially during the acute pain of gout. Pre and post treatment analysis and improvement was compared with the pre and post serum uric acid levels and GAQ 2.0 scores.

# Statistical analysis

Interpretation of the collected data was done using paired t test. Serum uric acid levels and GAQ 2.0 scores of pre and post treatment was compared.

# Discussion

This is a retrospective observational study which signifies effectiveness of homoeopathic treatment for Gout. Follow ups were collected well and observed as a secondary data reserve. Comparison with serum uric acid levels and Gout assessment scores (GAQ 2.0) were done with pre and post score values for over the period of 6 months.

Based on the individualization the totality of symptoms was

collected and around 12 homoeopathic remedies were prescribed. This shows an effective therapeutic use of homoeopathic remedies in reducing the serum uric acid levels as well as the GAQ 2.0 scores which explains the approach of individualized homoeopathic medicine towards pathological and physical well-being of the patients [Table 2 & 3]. By collecting the totality of symptoms and adhering to the fundamental principles of homoeopathy, the holistic system becomes a versatile treatment approach.

# Remedy

In this study, 12 medicines were used for gout, out of which Colchicum autumnale was given to maximum number of patients 23% (7) followed by Natrum sulphuricum 13% (4), Benzoic acidum to 3 cases (10%), Antim crud., Kalmia, Rhododendron, Rhus Tox., Lycopodium, Nat. carb., Urtica urens to 2 cases each (7%) and Causticum and Sulphur in 1 case each (3%).

#### Results

A recent prospective observational trial on gout patients compares the baseline serum uric acid, GAQ 2 and MYMOP 2 scores with values assessed after 3 months shows effective reduction on treating with homoeopathic medicines. Benzoic acid was the most frequent remedy prescribed [12]. In this current study colchicum autumnale was prescribed most based on individualization [figure 4]. Another observational study with 150 gout patients presented with both clinical and pathological improvement after the administration of individualized homoeopathic medicines. Affected age group of the study was 31-45 years which is almost similar to this current study ranges between 28-49 years. The improvement been observed for almost 83% of patients where there was reduction in physical discomfort [13]. Likewise in this current study the improvement is evidently depicted in graphical plot of figure 2 & 3 signifies positive variation of serum uric acid levels and GAQ 2.0 scores. A placebo control study on hyperuricemia shown a statistically effective mean reduction in medicine group compared with controlled group especially in primary gout [14]. Most of the previous studies on gout were common among males than females including the data of this study where males (22)73% are more affected than females (8) 27% whereas the recent report of global burden of disease (GBD) suggests females were becoming more affected than males over 195 countries

Table 1: Gender ratio

Gender	Male	Female
Total	22 (73%)	8 (27%)

Table 2: Pre and Post treatment difference

	Before treatment			After 6 months of treatment		
	N	Mean	SD	N	Mean	SD
Serum uric acid	30	9.83	1.39	30	5.25	1.32
GAQ 2.0 scores						
Gout concern overall	30	287.5	69.54	30	109.6	40.98
Gout medication side effects	30	133	32.6	30	64.6	9.9
Unmet gout treatment need	30	133.6	16.6	30	45	15.9
Well-being during attack	30	396	68.79	30	86	9.7
Gout concern during attack	30	333.6	52.08	30	134.6	25.09

Table 3: Pre and Post treatment difference

	Mean	SD	SE	95% Confidence Interval		t
				Lower	Upper	
Serum uric acid	4.57	1.62	0.29	3.99	5.15	15.75
GAQ 2.0 scores						
Gout concern overall	177.83	48.8	8.92	159.9	195.67	19.93
Gout medication side effects	68.3	32.78	5.9	56.5	80.1	11.4
Unmet gout treatment need	68.6	22.74	4.15	60.3	76.9	16.53
Well-being during attack	310	69.6	12.72	307.4	312.5	24.37
Gout concern during attack	199	50.9	9.3	180.4	217.6	21.3

Table 4: Table shows in frequently prescribed no. of cases in percentage

	Frequently prescribed medicines	No. of Cases	%
1.	Colchicum autumnale	7	23%
2.	Natrum sulphuricum	4	13%
3.	Benzoic acidum	3	10%
4.	Antimonium crudum	2	7%
5.	Kalmia	2	7%
6.	Rhododendron	2	7%
7.	Rhus toxicodendron	2	7%
8.	Lycopodium	2	7%
9.	Natrum carbonicum	2	7%
10.	Utica urens	2	7%
11.	Causticum	1	3%
12.	Sulphur	1	3%

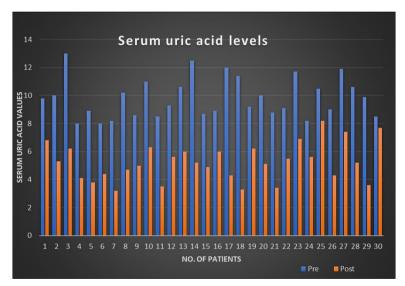


Fig 2: Comparison of pre and post treatment serum uric acid levels

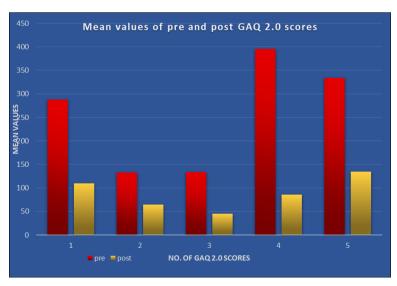


Fig 3: Comparison of mean values of pre and post treatment of GAQ 2.0 score

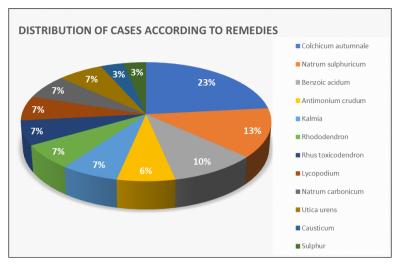


Fig 4: Frequently prescribed medicines

#### Conclusion

This retrospective observational study of gout reveals that the individualized homoeopathic treatment has a strong impact for reducing the physical and pathological abnormality likewise enhancing the general well-being of the patient which in turn improves their mental health from the suffering. Thus, the quality of life for gout can be enhanced by the well systematized homoeopathic treatment.

## **Conflict of Interest**

Not available

## **Financial Support**

Not available

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#### **How to Cite This Article**

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