A Comparative Study of Effectiveness of Colchicum autumnale 30 and Individualized Homeopathic Medicine in cases of Hyperuricemia.

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Abstract-

Hyperuricemia is a metabolic disorder in which serum uric acid level elevate above 7.0 mg/dl in men and 5.7 mg/dl in female. Hyperuricemia is results from increased uric acid production, decreased excretion, or a combination of both processes. This study was carried out with the objective to see the comparison between the effect of individualized Homeopathic medicine and colchicum autuamnale 30 in reducing the serum uric acid level .**Materials and methods:** - 46 patients with raised serum uric acid were selected on the basis on inclusion and exclusion criteria. Serum uric acid level was estimated before the study and at the end of 6th follow up. **Result:-**. According to Unpaired 't' Test Null Hypothesis is accepted as calculated 't' value 0.753621753 is smaller than table value 2.02 at 0.05 l.o.s. Unpaired 't' test reflects that there is no difference in effectiveness of Colchicum autumnale 30 and Individualized Homoeopathic Medicine in cases of Hyperuricemia. Pair t test was applied for Group A whose calculated value is 13.0161995 l.o.s (table t value 2.07). This represents colchicum is effective in reducing Hyperuricemia. The most frequently prescribed Homoeopathic medicines were Natrum mur(5), Rhus tox(3), Bryonia alba(3) , Arsenic album(2) & Lycopodium(2). Maximum cases of Hyperuricemia were observed in females (57%) than males (43%).**Conclusion:-** Colchicum autumnale 30 and Individualized Homeopathic medicines are effective in reducing serum uric acid level along with associated symptoms.

Keywords: Comparative, Colchicum autumnale 30, Individualized Homeopathic medicine, Hyperuricemia

Introduction -

Hyperuricemia is a metabolic disorder in which serum uric acid level increased above 7.0 mg/dl for men and 5.7 mg/dl for women. It may be primary or secondary caused due to increased production and decreased excretion of uric acid or combination of both[(1)]Characterized by symptoms such gouty arthritis (Inflammation around tophi , low grade fever ,decreased mobility, pain and swelling of great toe followed by other joints), nephrolithiasis , urate nephropathy, uric acid nephropathy. Hyperuricemia and gout appears as closely related but both are different entities. 80-90% of patients with raised serum uric acid level do not have clinical gout which means asymptomatic Hyperuricemia. Gout is an inflammatory condition of joints associated with Hyperuricemia which further leads to deposition of monosodium urate monohydrate crystals in joints [(1)].It is more common in middle aged men and post menopausal women[(2)].

Conventional line of treatment is available for Hyperuricemia, but it has certain side effects (e.g. Allopurinol has gastric and renal side effects) and patients has to take medicine for long period of time. Hyperuricemia causes gouty arthritis and renal pathologies [(3)].

Prevalence of gout is 1-4% of general population. 2-6 time more common in men than in female [(4)]. In India, Study from Vellore shows that 15.8% of affected patient are less than 30

years of the age. Population from Urban India more prevalent than Rural due to high prevalence metabolic syndrome in young people [5].
It may be primary or secondary depending cause whether it is innate or acquired disease[6].
Uric acid is formed from purine metabolism. Under normal physiological pH (7.4) uric acid circulates in ionized form of urate. Two third of uric acid excreted in kidneys, and one third is excreted in intestine. Urate production is accelerated by diet which is rich in purine, endogenous purine production and high cell breakdown. Urate excretion primarily occurs in kidney responsible for elevated uric acid level 90% of individuals. Hyperuricemia leads to the formation of monosodium urate crystals which further deposited in tissues and around the joints.[7]
Gout is inflammatory condition of joints characterized by deposition of MSU crystals in tissues and around the joints. Symptoms such as pain in affected joints, swelling tenderness, redness, hot sensation in affected joints. Local inflammation around tophi decreased mobility and discomfort. [7]
Location- Great toe, Wrist, Ankle, Hand , Finger joint.
Investigation-
Blood – Serum uric acid level (Normal 6.8mg/dl) ,Complete blood count,
X- ray
Renal Ultrasound in patients of uric acid nephrolithiasis[7].

Dietary Management-
Avoid food rich in purine such as red meat , spinach, cheese, beans , peas, gram mushroom, cauliflower, alcoholic beverages .
Drink plenty of water, eat dairy products.[8]

Allopathic management –
Allopurinol - Commonly used XO inhibitor. Gastric and renal side effects are common with long term of anti-inflammatory agents .
NSAIDS such as naproxen 250 mg. , febuxostat[9]
Colchicine- Alkaloid which is used for gout treatment, long term side effects are neuropathy, neutropenia and vacuolar myopathy.
Corticosteroids- Used in treatment of acute gout, side effect such as diabetes mellitus ,hypertension, osteoporosis[10].

Homoeopathic Management: Homoeopathic management has significant role in not only reducing serum uric acid in hyperuricemia but also a significant role in improving the wellbeing and reduce the tendency to accumulation of uric acid [11]. Miasms are fundamental cause of disease, in cases of hyperuricemia all joint pains are Sycotic in origin, it includes conditions such as gout , tophi , deposition in joints , osteoarthritis and rheumatism . Miasms disposed body toward certain diathesis and patient develop hyperuricemia due to lithic and uric acid diathesis. There by develop the tendency to accumulate uric acid crystals in body and develop the conditions like gouty arthritis.
Homoeopathic Medicines for Hyperuricemia-
Benzoic Acid, Lycopodium clavatum, Pulsatilla nigricans, Lachesis, Rhus Tox, Urtica urens[12].
Colchicum autumnale: Affects mainly the muscular tissue , periosteum, and synovial membrane of joints. Having power of relieving the gouty attacks. Affected parts are red, hot, swollen, there is tearing pain. Aggravated in evening,touch, at night. Joints are stiff and shifting rheumatism. Inflammation f great toe present gout in heel. Tingling in the finger

nails[13].It should be given in 3rd to 30th attenuation[13]. Used in high uric acid, affected portion may be puffy and very warm to touch. It Should be administered in inflammatory disorder of gout. Colchicine is an alkaloid derived from Colchicum autumnale[14].
Chemistry- Colchicine is main active principle, dried leaves and flowers of Colchicum autumnale contain same concentration of colchicine as that of fresh parts.
Pharmacology - . Its antirheumatic effects are highly effective for gout complaints. Effective in crystal induced inflammation. Little effect on non gouty arthritis[15].

Materials and methods-

Non randomized comparative study was carried out for 6 months and 6 follow up were taken after 15 Days in medical camp, outpatient department of Motiwala National Homeopathic Medical Collage and Hospital, Nashik. Ethical clearance was obtained from institutional ethic committee. And Homeopathic medicines were prescribed based on law of similia.

Inclusion criteria - 1) Patients suffered from raised uric acid level, more than 7.0 mg/dl in male and 5.7mg/dl in female. 2) Patients of both sex and all the ages. 3) Symptomatic patients of Hyperuricemia with joint pains. 4) Patients gave consent form.5) Patients did pre and post investigation. 6) Patients diagnosed with hyperuricemia.

Exclusion criteria – 1) Patients suffered from joint complaints but had normal serum uric acid level.
2) Pregnant and Lactating women.

Participants-

A total number of 46 patients from medical camp , outpatient department of Motiwala National Homeopathic Medical Collage and Hospital , Nashik. Suffering from joint complaints and some other symptoms of Hyperuricemia were recruited for the study. Informed consent was obtained. Patients were devided in 2 group on the basis of systematic sampling method, group A (colchicum autumnale 30) and group B (Individualised Homeopathic medicine) ,Specific case record format was filled. Serum uric acid was estimated before the study and at the end of 6 th follw up.

Treatment-

Patients of group A were prescribed as Colchicum autumnale 30 and patients in group B were prescribed Individualised Homeopathic medicines based on totality of symptom and repertorization. Patients were called for follow at an interval of 15 days. Based on the improvement in the presenting totality at the each follow up repetition of doses was done in both the groups.

Outcome and measures-

Serum uric acid level was measured at the beginning and at end of the study.
The outcome of the study was assessed by the difference of the score arrived at the end of study through statistical analysis.

Observation and result:

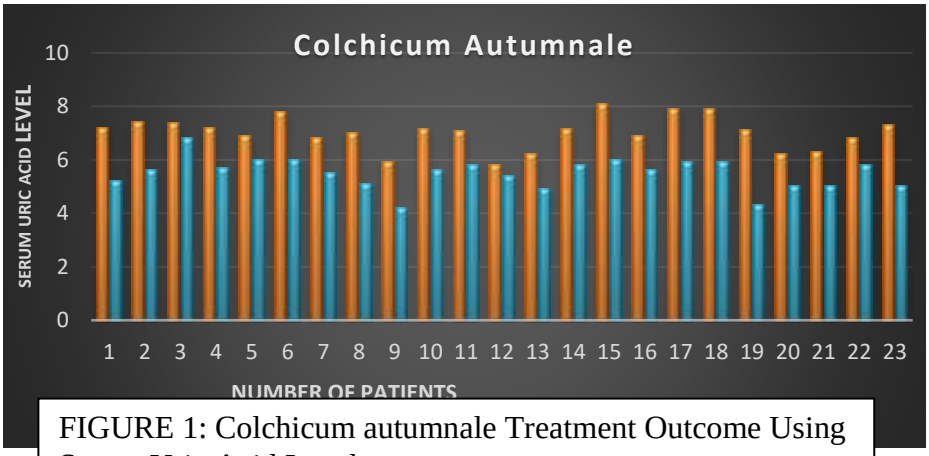

FIGURE 1: Colchicum autumnale Treatment Outcome Using Serum Uric Acid Level

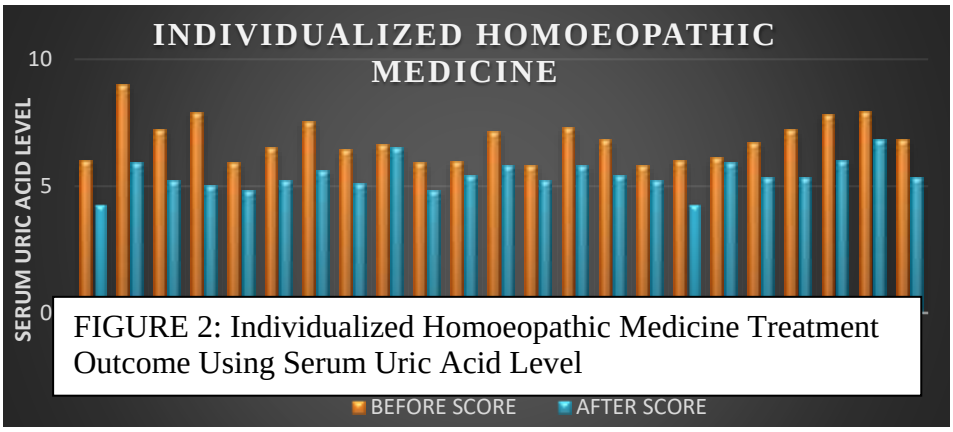

FIGURE 2: Individualized Homoeopathic Medicine Treatment Outcome Using Serum Uric Acid Level

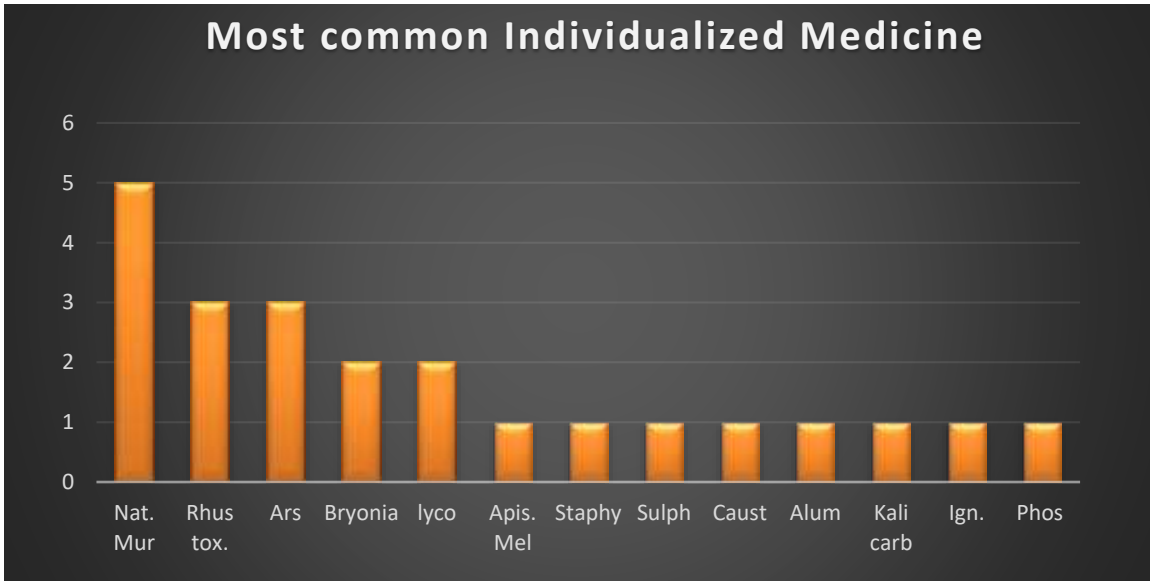

FIGURE 3: Most Common Individualized Medicine

1. According to Unpaired 't' Test Null Hypothesis is accepted as calculated 't' value 0.753621753 is smaller than table value 2.02 at 0.05 l.o.s. Unpaired 't' test reflects that there is no difference in effectiveness of Colchicum autumnale 30 and Individualized Homoeopathic Medicine in cases of Hyperuricemia.
2. Pair t- test was applied for Group A whose calculated value is 13.0161995, as against table t value 2.07. This represents colchicum is effective in reducing Hyperuricemia.
3. The most frequently prescribed Homoeopathic medicines were Natrum mur(5), Rhus tox(3), Bryonia alba(3) , Arsenic album(2) & Lycopodium(2). Maximum cases of Hyperuricemia were observed in females (57%) than males (43%).

Discussion-

Hyperuricemia defined as increased Serum Uric Acid Level above 7mg/dl in men and above 5.7 mg/dl in female with or without gouty arthritis (pain and swelling, redness, tenderness and hot sensation of joints). It caused due to increased production and decreased excretion of uric acid or combination of both. According to Homoeopathic literature Homoeopathic management has significant role in reducing serum uric acid level as well as improving the wellbeing of patients. Colchicum autumnale 30 is effective in Hyperuricemia. The study was conducted to assess the difference in effectiveness of Colchicum autumnale 30 and Individualized Homoeopathic Medicine in cases of Hyperuricemia.

Total 46 patients were included under study based on clinical symptoms and test result (Serum Uric Acid Level), which was further divided into 2 groups on the basis of systematic sampling. In the study it was observed that when Colchicum autumnale 30 was prescribed to Group A in suitable doses and repetition, the patients were assessed on the basis of Serum Uric Acid Level after 6 follow ups, 20(87%) patients were improved and 3(13%) patients were not improved. Individualized Homoeopathic Medicine was prescribed to Group B on the basis of totality of symptoms in suitable doses and repetition. 20 (87%) patients are

improved, 3(13%) patients were not improved. It shows that there is no any difference in effectiveness of Colchicum autumnale 30 and Individualized Homoeopathic Medicine in cases of Hyperuricemia. Colchicum autumnale 30 has substantially reduced the intensity of joint pain with reduction in serum uric acid level. Individualized homeopathic medicines improved the symptom with reduction in serum uric acid level.

Conclusion

Colchicum autumnale 30 and Individualised homeopathic medicines are effective in reducing serum uric acid level along with associated symptoms.

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