



ORIGINAL RESEARCH PAPER

Homeopathy

A STUDY TO EXPLORE THE EFFECTIVENESS OF MIMOSA HUMILIS IN THE MANAGEMENT OF PAIN & STIFFNESS IN POST VIRAL ARTHRITIS

KEY WORDS: Post viral arthritis, Chikungunya, Homoeopathy, Mimosa Humilis

Dr T. Surekha*

Assistant Professor, Department of Community Medicine, MNR Homoeopathic Medical College and Hospital. *Corresponding Author

Mr T. Neeraj

IV BHMS, MNR Homoeopathic Medical College and Hospital

ABSTRACT

Post viral arthritis is a condition where patient suffers with pain in all the extremities after various viral infections. Our study includes the cases suffering after Chikungunya arthritis. Patient suffers with pain and stiffness at initial stages and at later stages deformity may occur. Mimosa humilis is a homoeopathic remedy which is specific to manage pain and stiffness in viral arthritis. As it is a rare remedy, its homoeopathic use is less known, so here the study is to know mimosa humilis in managing pain and stiffness in Chikungunya arthritis. This project helps to know the efficacy of mimosa humilis in post viral arthritis in 30-55 years.

INTRODUCTION:

A virus can easily invade a joint which leads to an infection of the synovium around the joint tissues. Viral particles may act as the antigen in immune complexes which form in response to a viral infection and cause inflammatory reactions. According to clinical medicine; about 1% of all the cases of arthritis are associated with a viral causative agent. Many viruses have been reported till date as causative agents in viral arthritis. In many cases viral arthritis is the initial cause for rheumatic symptoms through various mechanisms. Post viral arthritis is an acute illness but it may last for long period in few cases. A broad range of viruses, many of which have specific geographic niches, can cause Arthritis, highlighting the importance of travel history. As much viral arthritis is leading to deformity and other functional disturbances, this study is done to manage the pain in post chikungunya arthritis. So this study helps to manage pain in post Chikungunya Arthritis by administering Mimosa Humilis-30C. As Homoeopathy a holistic approach, in treating a patient as a whole (constitutional treatment). So in cases of severity of symptoms a specific remedy acts well in managing and treating pain in arthritis, our study include to know the efficacy of Mimosa Humilis in Post Viral Arthritis.

OBJECTIVES:

1. To study the effectiveness of Mimosa Humilis in reducing pain and stiffness in Post Viral Arthritis.
2. This study is helpful in knowing the efficacy of homeopathy in Post Viral Arthritis.

NEED FOR THE STUDY:

According to NATIONAL VECTOR BORNE DISEASE CONTROL PROGRAMME, Number of people affected with chikungunya virus in India in 2019 is 12205.^[1] This is just a small number to the statistical data of the country. But in reality there were a lot of people suffering with this virus, but they can't even afford to complete the investigation tests. They just visit a local practitioner and they get palliative treatment which subside the pain temporarily. After few months it was becoming chronic and the people were suffering from chronic viral arthritis. It is the scenario mainly in rural areas in southern parts of India, mainly in Karnataka, Telangana, Tamilnadu and Maharashtra.

The people are habituated to take the palliative treatment due to quick and temporary relief and they are unaware of the fact that the palliative treatment is not going to help them out. But due to their low socio economic status, they were not able to go through the investigation and have the treatment. They just prefer the local Practitioners and get non-steroidal anti-inflammatory drugs (NSAIDS) and general anti-inflammatory for temporary relief of their suffering. So I wanted to take up this project in those villages and want to prove the efficacy of homoeopathy in treating post chikungunya arthritis.

REVIEW OF LITERATURE:

Definition:

Post viral arthritis is a viral infection caused by viral agents. According to clinical medicine about 1% of the cases of arthritis are associated with viral causative agent. Many viruses have been reported till date as causative agents in viral arthritis. In many cases viral arthritis is the initial cause for rheumatic symptoms through various mechanisms.

History:

Post chikungunya virus was believed to have originated in Africa about 200-300 years ago.

Chikungunya was first detected in 1952 in the mokonde plateau in Tanzania. This virus was isolated from the serum of a febrile patient from this area. The name chikungunya is derived from word "kungunyala" which means "to bend up" in reference to the stooped posture developed as a result of arthritic symptoms of the disease. Since its discovery the virus outbreaks have occurred occasionally and spread to different countries. Currently chikungunya has been identified nearly in 40 countries.^[2] In India, the first case was recorded in 1963 in Kolkata. One of the bigger outbreaks since then was recorded in Andhra Pradesh in late 2005 and early 2006.^[3]

EPIDEMIOLOGY:

Accurate data on the incidence and prevalence of virally induced arthritis are lacking. Most studies have investigated a limited number of etiologies and there is likely to be significant geographic variation in the frequency and causes of virally mediated arthritis. Studies that have screened patients presenting with acute arthritis have suggested a viral etiology in about 1% of cases.

Worldwide epidemics of arbovirus related arthritis are increasingly recognized. In Europe there have been recent outbreaks of chikungunya (CHIKV). While there is increasing recognition and possibly incidence, of vector borne causes of arthritis, other causes of vector borne causes of arthritis, other causes of viral induced arthritis may be becoming less common.^[4]

PREVALENCE:

CHIKV is responsible for disease throughout Africa and Asia and more recently the Caribbean. Mosquitoes are the vectors of CHIKV. The virus maintains a cycle of involving small non-human primates, small mammals and mosquitoes.

But in Asia CHIKV is predominantly urban involving human to mosquito cycle.^[4] Since 2013, this virus has been on rise affecting more than 100 countries and territories.^[5]

MIMOSA HUMILIS:

Botanical Name: Mimosa Humilis linn

COMMON NAME: Mimosa

FAMILY NAME: Leguminosae

PREPARATION OF MEDICINE: from tincture of leaves

PROVE R: Dr. Mure

In homoeopathy, it was proved by Dr. Mure, Brazil. This species is an annual shrub, woody, ramose, pubescent, above and covered with very sharp prickles. A sensitive plant of our hothouses is *Mimosa pudica*, but the leaves of *Mimosa Humilis* says Mure close at the least contact²³.

OTHER MEDICAL USES:

Antinociceptive, anti-helminthic, anti-fertility, diuretic, immune-modulatory, anti-hepatotoxic, wound healing, hyperglycemic, CNS depressant and also anti-convulsive actions of mimosa are also reported in the various research programmers around the globe.

HOMOEOPATHIC USES:

MIND: Indolent indifference

HEAD: vertigo, sense of heat with in the head and seems larger than the usual, headache, with weakness of stomach, pain in the sides of head.

ABDOMEN: Flatulence, with barborygmi, flatulent colic in the evening
STOOL: Diarrhea with colic, frequent and easy stool.

SEXUAL ORGANS: Inflammatory swellings of the scrotum,

RESPIRATORY ORGANS: Dry cough in the morning, difficult breathing, want of breath.

RHEUMATISM: Lancinations in the legs and hands, acute lancinations in the leg, arm, and in super extremities. Twitching in the arm, extending to the chest. Numbness of the arm and right hand ceasing the movement. Inflammatory swelling of the left hand. Stiffness in the bend of knees. Swelling of the left ankle with redness, tension, and lancinations. Violent lancinations in the back as from a pen knife.

Extremities in general

- Lancinations in the legs and hands (first day).
- Acute lancinations, now in the arm, now in the leg (fifth day).
- Superior extremities
- Twitching of the arm, extending to the chest (first day).
- Numbness of the arm and right hand, ceasing on movement (fourth day).
- Inflammatory swelling of the left hand (sixth day).
- Numbness of the hands (second day). Inferior extremities
- Trembling of the legs (first day).
- Smarting pain in the legs, with paralysis of the knee (first day).
- Stiffness of the bends of the knees (second day).
- * Swelling of the left ankle, with redness, tension, and lancination (fourth day)²

METHODOLOGY

Study Setting:

A Sample of thirty cases taken from the patients with symptoms of post viral arthritis visiting the MNR Homoeopathic Medical College & Hospital will be randomly assigned in the study. Through Case taking is done and recorded in case format, *Mimosa Humilis* is prescribed. Medicinal dose, potency, follow up were done as per the direction of Organon of medicine.

The patient's information is maintained confidential and case consent is been taken from the patient after explaining in detail in the local language (Telugu). Ethical clearance is been taken.

Study Design:

1. Single group, experimental, before and after study without control.
2. Study carried out at MNR Homoeopathic Medical College and hospital.
3. Data were collected according to case sheet in the college.
4. Pre and post treatment analysis were done using Visual analogue scale.
5. To study the effectiveness of the *Mimosa Humilis*.
6. Case taking along with physical examination was done.
7. Results were subjected to statistical analysis and hypothesis were tested using paired 't' test.

Selection Of Sample

Sample size: 30 cases

Sample Technique: Purposive sampling

Duration Of Study: 4-6 Months

Inclusive Criteria:

- The patients from adult ages i.e. from 30 – 55 years
- the patients of both the sexes
- irrespective of their socio-economic status

Exclusive Criteria:

- The patients with age below 30 and above 55 years are excluded
- The patients with other complications like osteoarthritis, rheumatoid arthritis, gout, and other rheumatic complications

INTERVENTION:

- Case taking and medicine selection and administration according to homoeopathic principle.
- Pre-post treatment analysis using improvement with VAS scale.

Data Collection:

Interview technique including case taking based on the direction given in Organon of medicine and remedy selection based on authorized homoeopathic Materia Medica.

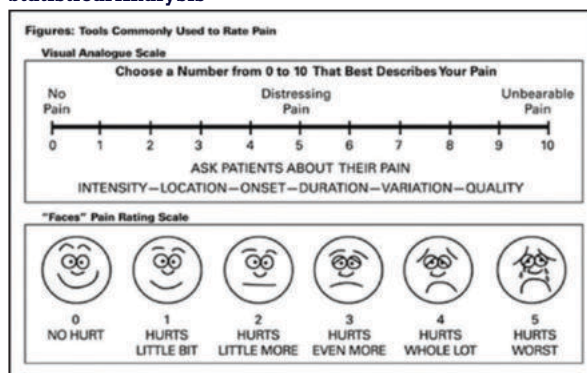
PROCEDURE:

1. Detailed case taking and recording of problems in case record format.
2. Clinical examination.
3. Prescription is done with reference to standard text book of Materia Medica as well as repertory.
4. Potency selection and repetition were done according to principles laid down in the Organon of medicine.
5. Observations were noted by VAS scale.

Selection Of Tools:

1. Pre structural MNRHMC case format.
2. Assessment criteria **VAS** scale for evaluating the prognosis of case.

Statistical Analysis



After collection and presentation of patients' data, analysis of data is the next important step. To draw valid conclusion, analysis of collected data is done below with the use of statistical methods to put into a scientific parameter. As the sample size is not more than 30, Paired t test is applicable. Scoring was according to VAS.

Table-7: Statistical Analysis Chart

S. No	OPD.NO	Scoring of cases acc to VAS		D	d	(d-d)	(d-d) ²
		(B)	(Af)				
1	G/20/4584	4	3	1	2.13	-1.13	1.28
2	G/20/4580	5	1	4	2.13	-3.13	9.79
3	G/20/4581	4	2	2	2.13	0.13	0.0169
4	G/20/4505	5	2	3	2.13	1.13	1.28
5	G/20/4511	6	1	5	2.13	3.13	9.79
6	G/20/4517	4	1	3	2.13	1.13	1.28
7	G/20/4578	6	2	4	2.13	2.13	4.53
8	G/20/4575	4	2	2	2.13	0.13	0.0169
9	G/20/4646	5	3	2	2.13	0.13	0.0169
10	G/20/4648	6	2	4	2.13	2.13	4.53
11	G/20/4643	4	3	1	2.13	-1.13	1.28
12	G/20/4499	3	3	0	2.13	-2.13	4.53
13	G/20/4492	4	1	3	2.13	1.13	1.28
14	G/20/4490	5	4	1	2.13	-1.13	1.28
15	G/20/4487	4	3	1	2.13	-1.13	1.28
16	G/20/4483	1	1	0	2.13	-2.13	4.53
17	G/20/4479	3	1	2	2.13	0.13	0.0169
18	G/20/4889	5	5	0	2.13	-2.13	4.53
19	G/20/4941	4	1	3	2.13	1.13	1.28
20	G/20/4903	5	2	3	2.13	1.13	1.28
21	G/20/4904	5	2	3	2.13	1.13	1.28
22	G/20/4922	4	1	3	2.13	1.13	1.28
23	G/20/4928	4	4	0	2.13	-2.13	4.53
24	G/20/4863	5	4	1	2.13	-1.13	1.28
25	G/20/4935	2	3	-1	2.13	1.13	1.28
26	G/20/4862	4	1	3	2.13	1.13	1.28
27	G/20/4860	5	2	3	2.13	1.13	1.28
28	G/20/4897	4	3	1	2.13	-1.13	1.28
29	G/20/4857	6	1	5	2.13	3.13	9.79
30	G/20/4853	3	1	2	2.13	0.13	0.0169
Tot al val ue	Σd = 64				Σ(d-d) ² = 75.14903		

d: difference of scores=(B-Af)
d: mean of difference of scores

Comparison With The Table Value

This critical ratio, paired-t follows a distribution on with **n-1 (i.e. 29)** degrees of freedom.

The 5% level is 2.045, 1% level is 2.756 and 0.1% level is 3.659 for 29 degrees of freedom. Since the calculated value is 7.23 which is greater than the table at 0.1% ($p < 0.001$). Hence, *null hypothesis* is rejected and the *alternative hypothesis* is accepted.

INFERENCE:

This study provides evidence to say that, there is significant reduction in the disease intensity scores after the Mimosa Humilis. Therefore Mimosa Humilis in lower potencies are effective in the treatment of Post viral arthritis.

CONCLUSION:

- The most affected age group is 30-40
- Males and females are affected at the same rate.
- As study includes only rural area, no patients from urban area are included.
- 30 potency is effective in treating pain in post viral arthritis mainly, post chikungunya arthritis

Distribution Of Cases Of According To Results

Results	No. of Cases	Percentage
Improved	20	66.6%
Not improved	10	33.33%



SUMMARY:

30 cases were taken based on the exclusion and inclusion criteria. All the thirty cases were prescribed with Mimosa Humilis 30 without any individualization. The age group between 30-45 years showed very good response after the administration of the remedy. Females showed marked improvement than males. The patients who continued the treatment for longer period i.e. 3-6 months showed positive results than others. All the patients are administered with Mimosa Humilis 30 for 2-6 months and the intensity of pain is noted before and after the administration of medicine. The study was subjected to statistical analysis and the results are made out of observation.

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