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## EFFECT OF NATUROPATHY AND PREKSHA MEDITATION ON RHEUMATOID ARTHRITIS PATIENTS

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### **Abstract**

**Aim-** Present study was aimed to find out the effect of yoga (Yogic kriya of whole body) Preksha Meditation and naturopathy in improvement of joint movement and disability by measuring Range of Motion (ROM), Health Assessment Questionnaire (HAQ) and Rheumatoid Factor (RF) in patients with Rheumatoid Arthritis. The goal of treatment was regression of symptom like Joint pain, swelling, muscle weakness.

**Method and Martial-** Total 60 rheumatoid patients were enrolled and divided into two groups Group 1 included 30 patients taking medicine. Group 2 included 30 taking Yoga, Preksha Meditation and Naturopathy. Range of Motion in finger and wrist was assessed bilaterally in terms of degree. Disability was assessed by using HAQ, a self-reporting method and an observational method. They were trained for 4 months of Yoga, Naturopathy and Preksha Meditation. All the data was collected before onset of study and after 1 month and analyzed statistically with student 't' test.

**Results-** Finger joint movability, wrist joint up movability, wrist joint down movability were significantly increased, and Health Assessment Questionnaire and RA Factor were significantly decreased in subjects after undergoing four months of Yoga, Preksha Mediation and Naturopathy treatment.

**Conclusion-** Yoga, Preksha Meditation and Naturopathy may be used as a non-pharmaco therapeutic and safe modality as an effective lifestyle adjunct to medical treatment to improve quality of life of patients. It is to be emphasized that it is very effective for prevention as well as management of all-pervading stress and stress related disorders.

**Keywords-** Range of Motion, Health Assessment Questionnaire, Rheumatoid Factor, Naturopathy. Preksha Meditation

### **Introduction**

Rheumatoid arthritis (RA) is the most common inflammatory, autoimmune disease that cause pain, joint stiffness-especially in the morning-and loss of function. This autoimmune disease results in progressive joint destruction and deformity leading to varying degrees of limitations in daily activities [1]. It affects the structural integrity and function of musculoskeletal joints and eventually the entire body [2]. Rheumatoid arthritis affects the whole body, including several organs, and so is described as

a systemic disease. The disease generally presents in a symmetrical (both side of the body) pattern, most often involving the hand joints. progressive and irreversible joint damage is caused by the immune system attacking its own body tissues, particularly those lining the joints. joint pain and swelling lead to structural deformities and disability, causing a reduction in joint movement and muscle use. In the longer term without effective treatment the disease causes much damage and disability[3]. Rheumatoid arthritis affects most 18 of the joints of the body but certain joints, particularly those of the wrists, hand and feet, are more likely to be affected. At initial diagnosis, the joints on both hands and feet are found to be affected in almost half the cases. Both shoulders and knee are also involved initially in about one-quarter of cases, and both ankles and elbows in about 1 in 6 cases. As the disease progresses, all the joints are likely to be affected [4].

In rheumatoid arthritis, the immune system targets synovial membrane and attacks it. The synovial membrane secretes synovial fluid into the joint. Synovial fluid is the joint fluid that lubricates and nourishes the joints. Other tissues can also be targeted by the immune system in rheumatoid arthritis, but the synovium, or synovial membrane, is generally the primary target. When the synovial membrane is attacked, it becomes inflamed (synovitis) and can thicken and erode. As the synovial membrane is destroyed, the synovial fluid is also and not secreted. The surrounding structures can also become involved leading to the joint deformities as can be seen in rheumatoid arthritis [5].

## Material and Methods

Purposive Sampling technique was used. Total 60 subjects of Rheumatoid Arthritis patients were enrolled and divided into two groups termed as experimental group and control group. The subjects of experimental group were given treatment of Naturopathy twice in a week and practice Yoga and Preskha Meditation for 30 minutes every day. All the parameters i.e. Rheumatoid factor (RA

factor), Finger Joint Movability, wrist joint up movability, wrist joint down movability, Helath Assessment Questionnaire were recorded two times i.e. pre-phase (before experimental intervention), post phase (after 4 months).

### Treatment

- Naturopathy Treatment
- Hand & Foot bath
- Tub bath
- Local steam
- Hot Compress

### Yoga Therapy

The yoga therapy includes practice of Yogic Kriya of Whole body, Preksha Meditation

- Kayotsarga
- Leshya dhyana.

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The total treatment period for each patient was four months.

## Parameters

There may not be one best test for measuring disease activity of RA, but over years a number of methods have been devised. These include patient questionnaires, joint counts, lab tests etc. In this study, therapeutic effect of yoga was finally assessed with the following parameters.

Rheumatoid Factor (RF)- The blood samples were taken for Rheumatoid factor (RF) prior to the intervention and after a period of 4 months [6].

Health Assessment Questionnaire (HAQ)- HAQ is measurement of functional Disability. Functional improvement in Activities of Daily Living was studied by the hindi translation of Health Assessment Questionnaire (HAQ) [7].

## Range of Motion (ROM)

Joint Affected- Rheumatoid arthritis affects most of the joints of the body (wrist, hands and feet) but certain joints are more likely to be affected like metacarpophalangeal joints and Proximal interphalangeal joint. It was measured by standard measurement tool Goniometer.

## Statistical method:

Results are expressed as mean  $\pm$  standard deviation (SD). Student's paired t test (two tailed) from baseline to 4 months was computed.

## Result

The obtained data were statistically analyzed, and we found a significant decrease in the level of RA which was 30.170 at the time of pre-experimental stage in experimental group which decreases to 18.517 after 4 months of experimental intervention where as there is no significant change in control group.

A significant increase in the level of finger joint movability which was 29.470 at the pre-stage of experimental group After practice for 4 month as experimental intervention, the mean was seen to be increasing and reached to 37.176 showing statistical significance and there is no significant change in control group after 4 months.

The flexibility of wrist joints up and wrist joint down in the experimental group of subjects were recorded as 55.588, 51.176 after four months of experimental intervention the mean value increased up to 67.352, 60.882 however in the case of control group no significant improvement was observed. In Health Assessment questioner a significant improvement was observed in experimental group at the level of  $p \leq 0.01$  as compared to control group.

| Sr. no | Parameters                      | Group              | Pre- Stage Mean± SD | Post Stage Mean± SD | Co- relation | T     | P value |
|--------|---------------------------------|--------------------|---------------------|---------------------|--------------|-------|---------|
| 1.     | RA Factor                       | Control Group      | 63.50±51.64         | 66.06±50.40         | 0.986        | 1.382 | NS      |
|        |                                 | Experimental Group | 30.17±25.35         | 18.51±14.48         | 0.748        | 2.759 | 0.05    |
| 2.     | Finger Joint Movability         | Control Group      | 25.00±13.25         | 27.81±14.38         | 0.852        | 1.742 | NS      |
|        |                                 | Experimental Group | 29.47±16.59         | 37.17±16.13         | 0.945        | 5.853 | 0.01    |
| 3      | Wrist joint up Movability       | Control Group      | 60.86±14.35         | 62.50±17.16         | 0.675        | 0.592 | NS      |
|        |                                 | Experimental Group | 55.58±12.63         | 67.35±12.60         | 0.873        | 7.628 | 0.01    |
| 4.     | Wrist Joint Down Movability     | Control Group      | 56.59±15.99         | 62.95±15.63         | 0.890        | 4.018 | 0.01    |
|        |                                 | Experimental Group | 51.17±16.97         | 60.88±18.33         | 0.960        | 7.778 | 0.01    |
| 5.     | Health Assessment Questionnaire | Control Group      | 0.302±0.226         | 0.254±0.177         | 0.824        | 1.741 | NS      |
|        |                                 | Experimental Group | 0.505±0.578         | 0.338±0.441         | 0.957        | 3.417 | 0.01    |

## Discussion

Drug treatments for RA have improved markedly in the last few years. Despite this, arthritis cannot be cured and even the best medical care may be of little help. There is a great need for additional activities that patients can do themselves to reduce pain and disability.

Naturopathy and yoga exercises that are less traumatic for the joints can be beneficial in maintaining flexibility and strength in RA patients. While traditional guidelines have restricted RA patients to only gentle exercise, research suggests that more intense exercise may not only be safe but may produce greater muscle strength and overall functioning and does not exacerbate pain or worsen the disease. In treatment group, there was a significant reduction in immunological marker, RA factor and patients had good relief in pain, swelling and stiffness of muscles.

The present study included meditation and yoga therapy as the psychological benefits of yoga such as stress reduction contribute to greater overall health. Yogic techniques involve isometric contraction which is known to increase skeletal muscle strength and reduce stress and anxiety [8], improve autonomic functions by triggering neurohormonal mechanisms by the suppression of sympathetic activity. Yoga may serve as a valuable adjunctive therapy for improving physical function, mental wellness, and overall quality of life among individuals with rheumatic disease. In their study Evans et

al [9] have reported that yoga for 6-10-week duration, carried out twice or thrice a week resulted in statistically significant improvement in pain, disability index, general health, mood.

The warmth decreases muscle spasm, relaxes tense muscles, relieves pain, and can increase range of motion naturopathy and yoga can provide important additional physical and psychological health benefits and help in the better management of chronic rheumatoid arthritis condition in a scientific manner [10]. Since studies of naturopathy and yoga have suggested potential benefits therefore the practice may have particularly strong appeal if it is capable of eliciting and maintaining patient adherence [11, 12, 13].

## Conclusion

For treatment of RA, naturopathy and Yoga Therapy can be used effectively as an additional therapy to allopathic medicine. The overall improvement in movement, pain and general health of RA patients by Naturopathy and Yogic techniques used in the study may be because of

improvement of mental health, muscle strength and blood circulation. Naturopathy and yoga, the cost-effective treatment may offer the best hope for arresting arthritis condition.

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