

# Naturopathic And Dietary Interventions In The Management Of Rheumatoid Arthritis: A Case Study Report

**Dr. Arya.M.D**

BNYS, (MD), SDM College of Naturopathy and Yogic Sciences, Ujire, Karnataka, India

**Dr. Swapna Suresh**

BNYS,(M.Sc Nutrition & Dietetics)  
SDM College of Naturopathy and Yogic Sciences,  
Ujire, Karnataka, India

**Dr. Prashanth Shetty**

BNYS, MSc (Nutrition & Dietetics), PhD  
Principal, SDM College of Naturopathy and Yogic Sciences, Ujire, Karnataka, India

**Mr. Ajith K**

M.Sc Nutrition & Dietetics (Asst. Professor)  
SDM College of Naturopathy and Yogic Sciences,  
Ujire, Karnataka, India

**Abstract:** *Rheumatoid arthritis (RA) is a long-term autoimmune disorder that primarily affects joints. It typically results in warm, swollen, and painful joints. Pain and stiffness often worsen following rest. Most commonly, the wrist and hands are involved, with the same joints typically involved on both sides of the body. The disease may also affect other parts of the body. This may result in a low red blood cell, inflammation around lungs and heart. Fever and low energy may also be present. Often, symptoms come on gradually over weeks to months.*

*Rheumatoid arthritis (RA) and the so called seronegative spondyloarthropathies (SpA) including the subgroups of ankylosing spondylitis (AS), reactive arthritis (ReA), undifferentiated spondyloarthropathies (USpA) and psoriatic arthritis (PsA) are both characterised by chronic synovial inflammation. In these rheumatism a similar synovial pathology is observed: the synovium is infiltrated by T cells, plasma cells and macrophages, although some distinguishing immunohistological features have been suggested.*

*Naturopathy, also termed as nature cure, is the science of curing the ailments with the help of nature. It is both the way of life and concept of healing that uses various natural means of treating human infirmities and disease state. Studies showed the elimination of certain food items led to an improvement of RA patients.*

*Here in this case, effectiveness of naturopathic and dietary interventions in treating arthritis has been shown to be without side effects.*

**Keywords:** *Rheumatoid arthritis, Dietary changes, Naturopathic interventions*

## I. INTRODUCTION

RA affects about 24.5 million people as of 2015. This is between 0.5 and 1% of adults in the developed world with 5 and 50 per 100,000 people newly developing the condition each year. Onset is most frequent during middle age and women are affected 2.5 times as frequently as men. In 2013, it resulted in 38,000 deaths up from 28,000 deaths in 1990. The first recognized description of RA was made in 1800 by Dr. Augustin Jacob Landre Beauvais (1772–1840) of Paris.

The term *rheumatoid arthritis* is based on the Greek for watery and inflamed joints.

RA typically manifests with signs of inflammation, with the affected joints being swollen, warm, painful and stiff, particularly early in the morning on waking or following prolonged inactivity. Increased stiffness early in the morning is often a prominent feature of the disease and typically lasts for more than an hour. Gentle movements may relieve symptoms in early stages of the disease. These signs help distinguish rheumatoid from non-inflammatory problems of

the joints, such as osteoarthritis. In arthritis of non-inflammatory causes, signs of inflammation and early morning stiffness are less prominent with stiffness typically less than one hour, and movements induce pain caused by mechanical arthritis [13]. The pain associated with RA is induced at the site of inflammation and classified as nociceptive as opposed to neuropathic [14]. The joints are often affected in a fairly symmetrical fashion, although this is not specific, and the initial presentation may be asymmetrical.

Naturopathy is the science and art of healing which enables the human body to get rid of its abnormal condition by itself with the aid of natural, vital and purifying therapeutic modalities. It potentiates inherent healing processes thus helps to restore and maintains the highest possible degree of healing. Naturopathy is the system of treatment which recognizes the existence of a vital curative force within the body. And Rheumatoid arthritis is an autoimmune chronic inflammatory disorder. The characteristic feature of RA is inflammatory which possess cavities, usually involving peripheral joints in a symmetric distribution. Where synovium becomes inflamed causing warmth, redness, swelling and pain. Some common prognosis possibilities for rheumatoid arthritis patients include; continued joint inflammation, pain, stiffness, restricted range of motion and progressive joint deterioration.

Patients with RA are considered to be at nutritional risk for many reasons. One cause of poor nutritional status in this patient population is thought to be the result of the weight loss and cachexia linked to cytokine production. In patients experiencing chronic inflammation the production of cytokines, interleukin-1 and tumor necrosis factor, increases resting metabolic rate and protein breakdown.

Hence, this study aims to study the effects of naturopathic and dietary interventions on rheumatoid arthritis.

## II. CASE REPORT

A 45 year old married woman visited Sri Dharmasthala Manjunatheswara Hospital Shanthivana in 2016 with complaints of pain, stiffness, and decreased range of movements in right shoulder joint, right wrist joint, both knee joints, right jaw, both ankles, and swelling in both legs. Additional symptoms and conditions included headache, gastritis, and constipation. She underwent conventional management in private hospital. Symptoms began with moderate to severe pain associated with swelling, stiffness in multiple joints especially over small joints.

Pain and swelling started on the second left toe. And swelling on the left leg. Then she applied ice and after one month swelling started on left feet and doctors prescribed for bandage. Later pain started on right elbow and right knee joint on March 2011 and started allopathic medications. Again pain started on right jaw and showed BDS doctor and diagnosed as arthritis and took tablets for one month. Pain aggravated and radiated to right shoulder joint, both knee joints, both ankle joints, and swelling on both legs associated with walking difficulty.

2015 she visited KIMS hospital and got admitted in St.John's hospital with walking difficulty and severe pain in all joints.

On 2016 she visited Sri Dharmasthala Manjunatheswara Yoga and Nature Cure Hospital and followed naturopathic and dietary interventions with yogic interventions. Along with the tablets she followed naturopathic and dietary interventions. Till the next visit after 6 months. From the next visits she dropped all the tablets and followed only the dietary changes with the treatments with turmeric in every sip of water and food. A recent blood report suggests a clear change in the CRP levels.

She was under medications like FOLITRAX 5mg, FEPANIL 650mg, TACROMUS 0.5mg, CALTEN-D 500mg, MEDROL 8mg, ACUVIN 500mg, EVION-600mg, NAPROSYN.SR, FOLIMAX 5mg, TACROMUS 0.5mg.

After careful examination, patient was treated with these naturopathic and dietary interventions along with yogic interventions.

### TREATMENT SITTINGS ARE AS FOLLOWS

DAY	TREATMENT	NIGHT TREATMENTS	DURATION
1	Steam bath with cold chest pack & neutral immersion bath with salt	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
2	Neutral enema, Full body mass age with infrared ray Neutral under water massage	Hot arm and foot bath with Epsom salt	30 minutes 20 minutes
3	Neutral enema, Reclining steam bath Neutral immersion bath with salt	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
4	Neutral enema, Neutral hip bath Neutral under water massage	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
5	Neutral enema, Full body mass age with infrared rays Neutral hip bath	Hot arm and foot bath with Epsom salt	30 minutes 20 minutes
6	Neutral enema, steam bath Hot mud to bilateral knee joints	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
7	Neutral douche to whole body Alternate hip bath	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
8	Neutral spinal bath Full wet sheet	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes

	pack		
9	Salt glow oil massage Hot mud to bilateral knee joints	Hot arm and foot bath with Epsom salt	30 minutes 20 minutes
10	Neutral arm and foot bath with Epsom salt Hot mud to bilateral knee joints	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
11	Partial massage Hot mud to bilateral knee joints	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
12	Full wet sheet pack Mustard pack to painful areas	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
13	Neutral douche Mustard pack to painful areas	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
14	Sauna bath Mustard pack to painful areas	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
15	Neutral half bath with salt Ganji turmeric bath	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
16	Partial massage with infra red rays Neutral hip bath	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
17	Salt glow oil massage GH pack	Hot arm and foot bath with Epsom salt	30 minutes 20 minutes
18	Full wet sheet pack Neutral immersion bath with salt	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
19	Neutral under water massage Mustard pack to painful areas	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
20	Neutral immersion bath with salt Mustard pack to painful areas	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes
21	Neutral immersion bath with salt Mustard pack to painful areas	Hot arm and foot bath with Epsom salt	20 minutes 20 minutes

Table 1

One hour daily yoga was done for 24 days, consisting of a set of sukshma vyayama, Asanas, pranayama and relaxation techniques.

#### DIETETIC REGIMEN FOLLOWED FOR 15 DAYS

Days	7.30am	9.00am	11.00am	2.00pm	4.00pm	6.30pm
1	Lemon honey	Barley water	Boiled diet with fruits	Mausambi juice	Barley water	Raw salads with

	juice		and soup			fruits and buttermilk
2	Lemon honey juice	Barley water	Raw salads with fruits and soup	Mausambi juice	Barley water	Fruits and buttermilk
3	Lemon honey juice	Raw potato water	Mausambi juice	Ash gourd juice	-	Mausambi, juice
4	Carrot juice	Raw potato water	Mausambi juice	Ash gourd juice	-	Mausambi, juice
5	Carrot juice	Raw potato water	Pineapple juice	Ash gourd juice	-	Mausambi, juice
6	Carrot juice	Raw potato water	Pineapple juice	Ash gourd juice	-	Mausambi, juice
7	Carrot juice	Raw potato water	Pineapple juice	Ash gourd juice	-	Mausambi, juice
8	Carrot juice	Raw potato water	Pineapple juice	Ash gourd juice	-	Mausambi, juice
9	Carrot juice	Raw potato water	Pineapple juice	Ash gourd juice	-	Mausambi, juice
10	Carrot juice	Raw potato water	Pineapple juice	Ash gourd juice	-	Mausambi, juice
11	Carrot juice	Raw potato water	Pomegranate, soup	Ash gourd juice	-	Mausambi, soup
12	Carrot juice	Raw potato water	Pomegranate, soup	Ash gourd juice	-	Mausambi, soup
13	Carrot juice	Raw potato water	Pomegranate, soup	Ash gourd juice	-	Mausambi, soup
14	Carrot juice	Raw potato water	Raw salads, fruits, soup	Ash gourd juice	-	Raw salads, fruits, soup
15	Carrot juice	Raw potato water	Boiled vegetables, fruits and soup	Ash gourd juice	-	Boiled vegetables, fruits and soup

Table 2

Curcumin (diferuloylmethane), a yellow coloring agent extracted from turmeric is also used as a remedy for the treatment and prevention of inflammatory disease<sup>[16]</sup>.

Orange, tomato, pineapple and carrot juices are all high in vitamin C, which means they have antioxidant properties, which can neutralize free radicals that lead to inflammation. Tart cherry juice has been shown to protect against gout flares and reduces osteoarthritis symptoms<sup>[17]</sup>.

### III. PATIENT'S PRE AND POST REPORTS

#### BLOOD REPORTS AND GENERAL PARAMETERS

Parameters	Variables	Pre data	Post data
CRP	-	122.7mg/dl	1.4mg/dl
RBC	-	3.29millions/cmm	3.45millions/cmm
WBC	-	11,700cells/mm	4,700cell/mm
Hemoglobin	-	12.6gm/dl	12gm/dl
Platelet count	-	3.6 lakh/cmm	1.10 lakh/cmm
Blood pressure	Systolic Diastolic	140 90	120 80
General parameters	Weight Height	69.8kg 163cm	64.3kg 163cm

	BMI	26.47kg/m <sup>2</sup>	24.3kg/m <sup>2</sup>
--	-----	------------------------	-----------------------

Table 3

#### IV. DISCUSSION

RA primarily starts as a state of persistent cellular activation leading to autoimmunity and immune complexes in both joints and other organs where it manifests. The initial site of disease is the synovial membrane, where swelling and congestion leads to infiltration by immune cells. Three phases of progression of RA are an initiation phase, due to non-specific inflammation, an amplification phase, due to T cell activation and chronic inflammatory phase with tissue injury, due to cytokines, IL-1, TNF- $\alpha$  and IL-6<sup>[18]</sup>.

In this case report, CRP, has been improved considerably. Though there is no evidence till date which addresses influence of naturopathy and dietary intervention on seronegative arthritis on CRP test, they have indirect influence on CRP test.

#### PROBABLE MODE OF ACTION

According to naturopathy accumulation of morbid matter is the cause of diseases, hence eliminating those morbid matter is the cure of disease. To reduce pain and other symptoms, use of complementary and alternative medicine which includes thermotherapy, acupuncture, massage etc.....has increased for RA patients. Acupuncture and massage therapies are commonly employed for most of the pain management. Mud was shown to have anti-inflammatory effect and sauna was assumed to reduce pain and swelling by producing analgesic effect and perspiration. Electro acupuncture can effectively improve severity of articular inflammatory swelling and lower ESR, serum CRP, and RF contents and suppress synovial TNF/NF-Kb protein signaling in RA rats.

Diet may play a significant role in health of an individual. It is evident that patients with moderate-to-severe RA, who switch to a very low-fat, vegan diet can experience significant reductions in RA symptoms.

Therefore naturopathy and dietary interventions including hydrotherapy, yoga therapy, massage therapy, acupuncture plays a significant role in patients with seronegative rheumatoid arthritis.

#### V. CONCLUSION

The case report shows remarkable changes in Rheumatoid arthritis status that improved from 21 days of dietary management and naturopathic interventions. The change was sustainable through simple lifestyle modification and by adopting few simple Dietary changes and naturopathic interventions at home. Considering the effects achieved in this case, Dietary changes and Naturopathic interventions could be used as safe and beneficial management for Rheumatoid arthritis.

#### ACKNOWLEDGMENT

We would like to thank Dr. Prashanth Shetty, Chief Medical Officer, SDM Yoga and Nature Cure Hospital, Shanthivana for his support and encouragement.

#### REFERENCES

- [1] Majithia V, Geraci SA (2007). "Rheumatoid arthritis: diagnosis and management". *Am. J. Med.* 120 (11): 936
- [2] Smolen, Josef S, Aletaha, Daniel; McInnes, Iain B. (2016-10-22). "Rheumatoid arthritis". *Lancet.* 388 (10055): 2023–2038.
- [3] Khan MA. An overview of clinical spectrum and heterogeneity of spondyloarthropathies. *Rheum Dis Clin N Am* 1992;18:1-10. 2.
- [4] Cunnane G, Bresnihan B, Fitzgerald O. Immunohistological analysis of peripheral joint disease in Ankylosing spondylitis. *Arthritis Rheum* 1998;41:180-2.
- [5] Cody G, History of naturopathic medicine, In, Joseph E Pizzornojr, Micheal T. Murray Text Book of Natural Medicine, 4nd Edition, Volume 1, Churchill Livingstone, 2013; 34, 96
- [6] Rastogi R. Introduction to naturopathy, 1st edition, Raghuvansi sales corporation, Agra, 2001; 1, 3
- [7] Hafstrom B. Ringertz A. Spangberg L. von Zweigbergk S. Brannemark I. Nylander J. Rönnelid L. Laasonen L. Klareskog A vegan diet free of gluten improves the signs and symptoms of rheumatoid arthritis: the effects on arthritis correlate with a reduction in antibodies to food antigens.
- [8] "Rheumatoid Arthritis and Complementary Health Approaches". National Centre for Complementary and Integrative Health. Archived from the original on July 5, 2015. Retrieved July 1, 2015.
- [9] GBD 2015 Disease and Injury Incidence and Prevalence, Collaborators. (8 October 2016). "Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015". *Lancet.* 388 (10053): 1545–1602.
- [10] GBD 2013 Mortality and Causes of Death, Collaborators (17 December 2014). "Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013". *Lancet.* 385 (9963): 117–71.
- [11] Landre-Beauvais AJ (1800). *La goutteasthénique primitive* (doctoral thesis). Paris. Reproduced in Landre-Beauvais AJ (2001). "The first description of rheumatoid arthritis. Unabridged text of the doctoral dissertation presented in 1800". *Joint Bone Spine.* 68 (2): 130–43.
- [12] Paget, Stephen A.; Lockshin, Michael D.; Loebel, Suzanne (2002). *The Hospital for Special Surgery Rheumatoid Arthritis Handbook Everything You Need to Know*. New York: John Wiley & Sons. p. 32. Archived from the original on 2017-02-22.

- [13] Walker, Brian R.; Colledge, Nicki R.; Ralston, Stuart H.; Penman, Ian D., eds. (2014). Davidson's principles and practice of medicine (22nd ed.). Churchill Livingstone/Elsevier.
- [14] "An approach to Early Arthritis". Pn.lifehugger.com. 12 January 2009. Archived from the original on May 27, 2010.
- [15] Nutrition and rheumatoid arthritis by Cheryl Koch, CNSD Updated by Reecca Manno, MD,MHS,5/11/15
- [16] Shehazd A1, Rehman G, Lee YS. Curcumin in inflammatory diseases.
- [17] <https://www.arthritis.org/living-with-arthritis/arthritis-diet/best-foods-for-arthritis/best-beverages-for-arthritis.php>
- [18] Maverakis E, Kim K, Shimoda M, Gershwin M, et al. (2015). "Glycans in the immune system and The Altered Glycan Theory of Autoimmunity". J Autoimmune. 57 (6): 1–13.
- [19] Electro acupuncture, massage, mud and sauna therapies in patients with Rheumatoid arthritis.
- [20] Dunn JM, et al (2005) Naturopathic management of rheumatoid arthritis.
- [21] Effects of a Very Low-Fat, Vegan Diet in Subjects with Rheumatoid Arthritis
- [22] John McDougall, Bonnie Bruce, Gene Spiller, John Westerdahl, Mary McDougall

IJIRAS