



Case Study

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AYURVEDIC TREATMENT OF RHEUMATOID ARTHRITIS: A CASE STUDY

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ABSTRACT

Pain makes us conscious for the presence of the injurious agent and that is why we seek removal of the injurious agent by appropriate measures. Rheumatoid arthritis (RA) is correlated with *aamvata* in *Ayurved*. Rheumatoid arthritis is basically an autoimmune chronic inflammatory disorder that mainly affects the symmetrical metacarpophalangeal joint and more than two to three proximal interphalangeal small joints of the body. This disease is commonly found in females as compared to males. The female male ratio is 3:1. Prevalence of Rheumatoid arthritis increases with age, with 5% of women and 2% of men over 55 years being affected. Rheumatoid arthritis is rare in men under the age of 45, where there is 6:1 female surplus. It's a very painful disease which usually cause tender, swelling and inflammation in joints. Joint stiffness worse in the morning and remain for more than one hour. Chronic inflammation, granuloma formation and joint destruction is commonly seen. Fatigue, fever, weight loss, irritation and depression are also the most common non-articular symptoms. A satisfactory treatment is available in *Ayurvedic* medicine for this disorder. Various *Ayurvedic* drugs have been proved useful for these manifestations. This case report is a classic case of Rheumatoid arthritis, which was treated for six months under the name of *aamvata* with *Ayurvedic* drugs. The patient was on modern medicine and we efficaciously exchange him from conventional modern medicine to *ayurvedic* medicine.

Keywords: *Aamvata*, *Ayurvedic* Medicine, Modern Medicine, Prevalence and Rheumatoid Arthritis.

INTRODUCTION

Rheumatoid arthritis is a long-term autoimmune disorder that primarily affects joints¹ in which the body's immune system – which normally protects its health by attacking foreign substances like bacteria and viruses – mistakenly attacks the joints. The prevalence of Rheumatoid arthritis is low in black Africans and Chinese and highest in pima Indians. Prevalence of Rheumatoid arthritis is seen increases with age, with 5% of women and 2% of men over 55 years being affected. Rheumatoid arthritis is rare in men under the age of 45, where there is 6:1 female surplus. The typical clinical phenotype of Rheumatoid arthritis is a symmetrical, deforming, small and large joints polyarthritis, often associated with systemic disturbance and extra articular disease feature. The disease usually last long till the end of life with intermittent exacerbations and remissions. The severity of the disease varies from patients to patients, in some it may be mild and in some it might be severe. Female gender is a risk factor and this susceptibility is increased postpartum and by breast feeding. Cigarette smoking is also one of the risk factors of Rheumatoid arthritis. Whatever the initiating stimulus, Rheumatoid arthritis is characterized by persistent cellular activation, auto immunity and presence of immune complexes at sites of articular and extra articular lesions. This leads to chronic inflammation, granuloma formation and joint destruction. The earliest change in patients is swelling and congestion of the synovial membrane and the underlying connective tissues. Inflammatory granulation tissue (pannus) spreads over and under the articular cartilage, which is progressively eroded and destroyed. Later fibrous or bony ankylosis may occur. The clinical hallmark of inflammatory joint disease is persistent synovitis. The most common presentation is with a gradual onset of symmetrical arthralgia and synovitis of the small joints of the hand wrist and feet. A dramatic acute onset,

sometimes over just a few days with florid morning stiffness, polyarthritis and pitting oedema, occurs more commonly but not exclusively in the elderly. Occasionally the onset is palindromic, with recurrent symmetrical acute episodes of joint pain and swelling which lasts only for few hours or days. The typical features are symmetrical swelling of the metacarpophalangeal and proximal interphalangeal joints. These joints considered to be actively inflamed if they are tender on pressure, and have stress pain on passive movement or non-bony effusion or swelling. Specific hand deformities include 'swan neck' deformity, button hole deformity and a Z deformity of a thumb. In the forefoot dorsal subluxation of the metatarsophalangeal joints results in 'cock-up' toe deformities. Popliteal or Bakers cysts is also one of the complications of Rheumatoid arthritis. Fatigue, fever, weight loss, irritation and depression are also the most common non-articular symptoms. As, Rheumatoid arthritis can affect body systems, such as the cardiovascular or respiratory systems, it is called a systemic disease. The treatment in allopathic includes anti rheumatic drugs which includes disease modifying antirheumatic drugs (DMARDs). Methotrexate and chloroquine are same examples of DMARDs. For Rheumatoid arthritis these drugs have to be given for longer periods. The prolonged use of methotrexate cause dose dependent progressive liver damage leading to cirrhosis in some patients and incidence of chest infection is increased whereas prolonged use of chloroquine/hydroxychloroquine accumulates in tissues and produce toxicity, most disturbing adverse effect is retinal damage and corneal opacity². This is less common and reversible in case of hydroxychloroquine, which is preferred over chloroquine. Other adverse effects are rashes, greying of hair, irritable bowel syndrome, myopathy and neuropathy. *Amavata* in *Ayurveda* is correlated with Rheumatoid Arthritis. It comes as attacks of shifting or pricking type of pain, stiffness particularly in morning

hours, person may feel uncomfortable for many days and has sudden active phase of the disease. Due to poor strength of Agni (Jatharagni/digestive fire) the incomplete and undigested *ahara* in *Amashaya* (digestive system) is known as *Ama* (partially digested). Thus, aggravated *doshas* (Tridosha) in the undigested food mass get localized into a part of the stomach, which then either obstruct the movements in the abdomen or suddenly get eliminated through upper and lower channels of the alimentary tract and produces distinct features of *doshas*³. After the intake of *ahara*, it moves towards the *koshtha* which is done by the help of *prana vayu*. The site of *pachakagni* is *grahani* or *pakvamashaya* better known as *pittadhara kala*⁴. *Samana vayu* which is present in *amashaya* stimulate the *pachakagni* for the digestion and separation of food as well as *shoshyati* i.e., absorption of water and nutrients⁵. This absorption of nutrient and water requires movement which is the main function of *vata*. So, here both *Samana vata* and *pachakagni* is responsible for absorption⁶. Consumption of incompatible food, doing *viruddha cheshta* i.e., doing exercise just after having heavy meal, consuming *viruddha ahara*, *mandagni* due to any cause, *nishchalata* i.e., physical inactivity etc all these *Nidana* leads to increase of *vata dosha* and *aamrasa* due to improper digestion of food. The aggravated *vata dosha* along with *aamrasa* reach to *kapha Sthana* and *sandhi* (joints), which cause obstruction in the joints and leads to pain in the joints. *Vyana vayu* propels the *aamrasa* into systemic circulation when reaches to small joints it causes pain and swelling. In aggravated disease condition pain along with *Shotha* (oedema) occurs in the joints of *hasta* (hands), *pada* (foot), *Shira* (head), *gulf* (ankle), *trik* (lumbo- sacral region), *janu* (knee) and *uru* (thigh) region⁷.

Etiological factors for Rheumatoid arthritis

The cause of Rheumatoid arthritis is believed to involve a combination of genetic and environmental factors but the exact cause is still not known. Rheumatoid arthritis involves the body's immune system attacking the joints which results in inflammation and thickening of the joint capsule. It also affects the underlying bone and cartilage. The diagnosis is made mostly on the basis of a person's signs, symptoms and Rheumatoid arthritis Factor investigation. X-rays and laboratory testing. Differential diagnosis of Rheumatoid arthritis includes systemic lupus erythematosus, psoriatic arthritis, and fibromyalgia among others⁸. In this article we relate Rheumatoid arthritis with *Aamvata*. The causative factors responsible for *Amavata* affect the body in following ways:

- *Viruddha Ahara*

Viruddha Ahara is one of the most important factors responsible for *Amavata*. Eighteen types of *Viruddha Ahara* have been described in *Charaka*. *Desha Viruddha*, *Kala Viruddha*, *Agni Viruddha*, *Matra Viruddha*, *Satmya Viruddha*, *Dosha Viruddha*, *Sanskara Viruddha*, *Viryas Viruddha*, *Koshtha Viruddha*, *Avastha Viruddha*, *Krama Viruddha*, *Parihara Viruddha*, *Upachara Viruddha*, *Paka Viruddha*, *Samyoga Viruddha*, *Hrita Viruddha*, *Sampata Viruddha*, *Vidhi Viruddha*⁹. Excessive indulgence of any of these *Viruddha ahara* leads to production of *Ama*¹⁰ and imbalance of *Vata*, ultimately leading to *Amavata*. *Viruddha Ahara* also leads to many other disorders¹¹.

- *Viruddha Cheshta*

Exertion soon after taking unctuous meal. Taking *Ushna* and *Sheeta* substances immediately one after another, Sedentary lifestyle, Suppression of natural physiological urges, Day time sleeping, awakening at night, performing such acts which are beyond one's capacity, Excessive indulgence in sexual act, any

type of physical involvement just after taking meal viz exercise, sexual act, horse riding etc. Cold water bath, Exposure to excessive winds due to excessive travelling or excessive indulgence into adventurous hobbies like sky diving, scuba diving etc. Sleeping on an uneven bed. These are considered as *Viruddha Cheshta*.

- *Mandagni*

Mandagni refers to the decrease in *agni* which cause improper digestion of the food which leads to *ama* (partially digested food) and this *ama* comes in circulation and get seated and cause obstruction in *kapha Sthana* and hence it causes *aamvata*.

- *Nishchalata*

Any type of physical inactivity or state of inertia is responsible for *Kapha Vriddhi* which results in *Agnimandya* (reduced digestive fire) and consequently results in the formation of *Ama*.

- *Snigdha Bhuktvato Vyayama*

Exercise just after any type of meal is unhealthy, but exercise after taking unctuous meal (*Snigdha Ahara*) has been specially mentioned in causation of *Amavata*. Here exercise means any type of rigorous physical activity. Normally a good blood supply is very essential in gastro-intestinal tract for the digestion of heavy meal.¹²

Blood flow increases in the GIT after ingestion of food, during active absorption of nutrients. Blood flow in villi and adjacent regions of the submucosa is increased as much as eight-fold. Likewise, blood flow in the muscle layer of intestinal wall increases with increased motor activity in the gut. After a meal, the motor activity, secretory activity and absorptive activity all increases. Likewise, the blood flow increases greatly. So, it is not recommended in *aamvata* to do exercise after ingestion of food because it decreases blood supply to the GIT.

Psychological factor

In state of *Atichinta* (excessive stress), *Atishoka* (excessive grief), *Krodha* (excessive anger), *Bhaya* (excessive fear) if a person is habituated to take meal, then proper digestion will not take place because of improper secretion of intestinal juice. As the Cardinal signs and Symptoms of *Amavata* mentioned in *ayurvedic* texts are *Sandhi Shoala*, *Sandhi Shotha*, *Stabdhata*, *Sparshasahatva v. Sashabda Sandhi*. And the patient also has the same complaints as mentioned in the texts. Apart from these cardinal symptoms *Angamarda* (Generalised body ache), *Aruchi* (Anorexia), *Trishana* (Thirst), *Alasya* (laziness), *Gaurava* (Feeling of heaviness in the body), *Jwara* (Fever), *Apaka* (Indigestion), *Angasunnata* (numbness) are also found¹³.

Case report

A 40 years old male patient from Bengaluru visited to the Out-Patient Department (OPD) of Ch. Brahm Prakash Ayurved Charak Sansthan (CBPACS), Khera Dabar, New Delhi on 09th October 2018 with the complaints of symmetrical proximal interphalangeal joint pain with tenderness, redness and warmth in joints. Symmetrical swelling of the metacarpophalangeal and proximal interphalangeal joints was seen on examination. These joints were inflamed and tender on pressure, and have stress pain on passive movement. Patient was also suffering with the joint stiffness especially early in the morning for more than 30 minutes that gradually decreases during day time. There was loss of joint

range of motion. He was also suffering with fever sometimes and was in a state of mild depression when he was checked in the OPD due to severe pain. The pain was so severe sometimes that became intolerable to the patients. Patient had suffered from this problem for last five years and his condition become vaster over the period of time. After history taking, we came to know he had a severe pain in all small joints of the body especially in metacarpophalangeal, metatarsophalangeal and proximal interphalangeal joint on 5th January 2018. So, he went to allopathic hospital where he was treated with injected with dexamethasone 2 mg/ml IM daily for four subsequent days and methotrexate 20 mg OD, hydroxychloroquine 200 mg OD and folic acid 5 mg OD were advised. This treatment was continued for 8 months. The symptoms subsided but do not got complete relief. Patient was advised to take these medicines for very long time. After knowing the adverse effects of these drugs, the patient became anxious and was not satisfied with the said medicines. Then he came for *ayurvedic* treatment because he wants to shift the treatment to other pathy after knowing the adverse effects of prolonged use of allopathic drugs. So, he consulted in OPD of CBPACS, New Delhi. His general health was good. Patient was on methotrexate 20 mg OD, hydroxychloroquine 200 mg OD and folic acid 5 mg OD at the time of consultation.

Patient consent

Written permission for publication of this case study has been obtained from the patient.

Clinical Findings

The case was subsequently reported on 09th October 2018 in OPD of CBPACS, New Delhi for the administration of therapeutic procedures. When physical examination was done, patient was found anxious, with loss of appetite with coated tongue. When asked about bladder and bowel he was suffering from constipation from last 3 years, whereas Micturition was normal. Patient was *Vata* and *Pitta* *Prakriti* with *Madhyama Samhanana*, *Sara* was *madhyama*, *Sama Pramana*, *Satmya* was *madhyama*, *Madhyama Satva* (in relation to mental strength), *Vyayama shakti* was *madhyama*, gait was limping. On neurological examination, speech and higher mental function were normal. All cranial nerves examination was normal. When motor examination was done bulk, tone, power and coordination of arms and legs were found normal bilaterally. There was tenderness, Symmetrical swelling and warmth of the metacarpophalangeal and proximal interphalangeal joints present on examination. Bilateral knee joints were also slightly affected and were tender on touch. SLR examination was positive with a decrease in the range of motion. When laboratory finding was done his rheumatoid factor was 30 IU/ml. As pain was there in the past 5 years and patient was already on treatment but did not got complete relief.

Diagnostic focus and assessment

The patient was known case of Rheumatoid arthritis as it was confirmed by tenderness, swelling and warmth in metacarpophalangeal and proximal interphalangeal joints of hand. SLR examination was positive with a decrease in the range of motion. He was also suffering from constipation from last 3 years. Laboratory finding showed his rheumatoid factor was 30 IU/ml. He was also suffering with morning stiffness in the joints for more than 30 minutes. *Aamvata* was considered as *Ayurvedic* diagnosis for this disease.

Treatment plan

When the patient first checked in the OPD of CBPACS he was already on allopathic drugs which was methotrexate 20 mg OD, hydroxychloroquine 200 mg OD and folic acid 5 mg OD. According to specific line of treatment described for *Aamvata* in *ayurvedic* texts was advised to patients. As the pain in joints was the most important problem to be resolved and according to the pathophysiology of *Aamvata*, *ama* is the main factor for causing Rheumatoid arthritis. So, it is very important to treat the patient of Rheumatoid arthritis according to *agni* of the person. *Acharya Sushruta* mentioned in the classical text that simple baseline of treatment is to exclude the *Nidana*. *Viruddha Ahara* (unwholesome diet) *Viruddha Cheshta* (erroneous habits) *Mandagni* (diminished *Agni*) *Nishchalata* (sedentary habits), any type of exertion immediately after taking *Snigdha Ahara* (oily food) excessive indulgence in *Guru Ahara* (heavy food) and *Kandashaka* (tuberous vegetables) are the main aetiological factors responsible for production of *Aamvata*. Following medication were advised *Yograja guggulu*, *Rasanadi kwath*, *Vata vidhwansak rasa* and *Agnitundi vati* with lukewarm water as its vehicle. *Triphala* tablet and *Eranda* oil were also advised. Intake of very light food was advised to the patient. Yoga and meditation were also advised to the Patient to overcome the depression. But along with these drugs the allopathic drugs were still continued for the treatment. Just after one month on 13th November 2018 when the patient came to the OPD for the follow up the dose of methotrexate 20 mg OD was reduced to 10 mg OD. Others *ayurvedic* and allopathic drugs were still continued. Then on 8th January 2019 during the regular follow up the patient condition was improved and pain was subsided. He was advised the same *ayurvedic* drugs but the allopathic drug folic acid and hydroxychloroquine were withdrawn whereas methotrexate 10 mg OD was reduced to 5 mg OD. Others *ayurvedic* and reduced dose of allopathic drugs were still continued. On 12th march 2019 all allopathic drugs were withdrawn and patient was only on *ayurvedic* drugs. Symptoms of Rheumatoid arthritis were completely cured.

Intervention

When patient consulted in OPD on that day itself he was a diagnosed case of Rheumatoid arthritis as his RA factor was raised. So, medication was started on 09th October 2018 which includes *Eranda* oil (20 ml) with lukewarm water in early morning before meal. *Yograja Guggulu* Two tablets (500 mg) thrice a day, *Vatavidhwansak rasa* one tablets (250 mg) thrice a day, *Agnitundi Vati* one tablet (250 mg) thrice a day with lukewarm water as its vehicle and *Rasanadi kwath* 40 ml twice a day were advised. *Triphala* tablet two tablets (500 mg) before sleep with lukewarm water. This treatment was continued for six months. Only *ayurvedic* drugs intervention were given to the patient along with some non-therapeutic intervention like yoga and meditation. His allopathic treatment was advised to continue at the time of consultation.

Outcome measures and follow up

By just following the proper *ayurvedic* management with proper dietary regimen patient got almost complete relief from Rheumatoid arthritis symptoms after the treatment of six month. Patient followed the above intervention for the total duration of six months with the regular follow up. Patient didn't leave the treatment in the mid and followed all the advised given to him. His RA factor was reduced to 12 IU/ML. Morning stiffness and pain were absent, his range of motion was also increased after the treatment. He got relieved from all the symptoms in six months

of *ayurvedic* treatment and patient is still on *ayurvedic* medication.

DISCUSSION

Yograja guggulu and *vata vidhvansak rasa* are mainly indicated in *Vata Roga, Ardita, Pakshaghata* etc. It mainly deals with *Vata* disorders and pain is the classical symptom of Rheumatoid arthritis which is due to *Vata*. So, *Yograja guggulu* do the best in this case. *Yograja guggulu* is a *Rasayana, tridosahara* and also helps in *mandagni*¹⁴. When it is consumed with *Rasanadi kwath* it kills all types of *vata* disorders '*rasanadi kwath samyukto vividham hanti marutam*'¹⁵. *Agnitundi vati* improves *pitta*, balances *vata* and *kapha*. *Agnitundi vati* contains heavy metal ingredient that is why not given in higher dose and hence should be taken under medical supervision. It is used to treat *Mandagni* (decrease of digestive power). It is useful in management of fever accompanying with indigestion. It contains *kshara* as ingredient. People with hypertension should take this medicine with precaution. It is anti-spasmodic, carminative and digestive. *Triphala* is a combination of three herbal drugs which involves one *Hariatiaki*, two *Vibhitaki* and four *Amalaki*. *Triphala* is said to be *deepani* and it helps to increase *agni* and therefore decrease *ama*, which is said to be the cause of *aamvata*. Therefore, it helps in proper digestion and it is *rasyani* too. *Eranda* oil is considered to be the powerful treatment for *aamvata*. As *yogratnakara* quoted that '*erandatailsihasya gandhamaagraya gachanti*' i.e., the efficiency of *Eranda* oil to remove *aamvata* from the body is as equivalent to the lion in the forest who is even able to remove the giant elephant from the forest. *Eranda* oil and milk make an amazing stomach cleansing supplement. It is also a great remedy for treating the pain caused by arthritis because of its anti-inflammatory properties. As it is said for *vata vyadhi* '*vayu sarpivasatailmajja panernaram tatah*' so *Eranda* tail is advised to the patient. *Eranda* tail will do *Mridu Virechana* which is the *chikitsa* of *vata vyadhi*¹⁶. After suffering from a lot of pain it is very usual that the patient became irritated and suffered with depression so, yoga and meditation was highly recommended to overcome the mental issue and help to build strong mental power in the patient. An integrative treatment of *ayurvedic* medicine and yoga is always found beneficial. Hence all these drugs help the patient to get rid completely of Rheumatoid arthritis. At present, the patient is free from all signs and symptoms and he is leading a comfortable life by carefully avoiding the *Nidana* (causative factors) of the disease in his diet and lifestyle.

CONCLUSION

The case report demonstrates the treatment of Rheumatoid arthritis completely with only *ayurvedic* medicinal intervention which helps in gradually withdrawing of allopathic drugs. No surgical intervention was given.

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