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Review

A Holistic Review of Ayurvedic Treatment for Rheumatoid Arthritis

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Abstract

Understanding a complex chronic illness such as rheumatoid arthritis requires a deep cognitive and intellectual study of its causative and exacerbating factors, pathogenesis, and ongoing convoluted micro and overt symptoms. Along with this, deep subjective and clinical data are to be critically assessed and analyzed. Therefore, gaining an understanding of the foundational concepts of Ayurveda is imperative, as its basic psyche is rooted in a holistic approach for evaluating the patient based on all planes of consciousness, including the superficial entities of the disease. Second, it is vital to understand what Ayurveda has to offer concerning the prevention, management, and treatment strategy of chronic diseases like rheumatoid arthritis. Ayurveda, the ancient medical science of India, is based on a comprehensive understanding of the root cause and how it reflects in the various parts of the body while manifesting into the form of overt and covert symptoms. Ayurveda maintains that disease is a blend of pathological processes and the natural processes of the body, mind, and senses. The treatment procedures of Ayurveda are a sequence of steps including pacification therapies, invigoration therapies, and rejuvenation procedures to address various dimensions of disease and to improve the well-being of patients in the chronic progressive debilitating disease status. Ayurvedic herbal medicines in rheumatoid arthritis have shown signs of being immunomodulators, anti-inflammatory, analgesic, reducing symptoms relevant to rheumatic disorders, and improving the mobility of joints, along with a biodegrading effect of a severity score assessed by magnetic resonance. The overall effect of Ayurveda in rheumatoid arthritis encompasses enhancing the well-being of patients through different holistic approaches. Growing evidence supports the application of multidisciplinary treatments.

Keywords: Ayurveda, Rheumatoid Arthritis, Amavata, Shodhana, Shamana, Rasayana, Herbal Medicine, Detoxification, Panchakarma.

INTRODUCTION

A growing interest has been noted in traditional and alternative means of chronic disease management among patients. It is estimated that the majority of the world population still seeks the advice of an alternative practitioner for the management of conventional chronic diseases. Modern Western therapies have various limitations such as cost, chronic use, poor outcomes, and unwanted side effects. Ayurveda or traditional Indian medicine is a hot topic in many chronic painful disorders. Therefore, the present study focuses on rheumatoid arthritis and Ayurvedic treatments. The aim of the review is to impart valuable information about Ayurvedic treatment for rheumatoid arthritis, which may complement the understanding of modern pharmacological therapy. Chronic painful conditions become more problematic and less manageable when associated with rheumatoid arthritis. 1In modern medicine, lifelong expensive interventions in the form of disease-modifying anti-rheumatic drugs and corticosteroids are the available treatment modalities. Presently, not all patients in India are satisfied with the results of modern medical treatment. Hence, the need for a comprehensive approach that integrates traditional treatments for managing joint pain needs to be encouraged. Ayurveda works as a system of medicine that is grounded; the body and mind need to be in balance so that the body can find the path of healing energy. The present study is based upon the concept of 'whole medicine' and adds to the knowledge of the patient-centered care of pain. In this paper, a comprehensive integrated review has been discussed for rheumatoid arthritis.2

Understanding Rheumatoid Arthritis

Rheumatoid arthritis (RA) is the commonest chronic systemic autoimmune disease. The disorder mainly affects the musculoskeletal system, primarily the synovial joints. The activation of the host's immune system is a common feature of autoimmune disorders, and this may occur due to known environmental factors that may trigger the disease in someone who is genetically susceptible. The exact cause or mechanism of the disease is not completely understood, but it is thought to involve a combination of genetic and environmental factors. The prevalence of RA is approximately 1%, and it roughly affects 1.3 million adults in the USA, although most people with the disease are not employed; it has been estimated to cost the U.S. economy annually in treatment. RA affects women about three times more often than men and is not limited by age or social status.3

RA is a disabling disease that plays an important role in health-related quality of life. The pain may cause distress and affect the emotional aspect of a person's life. Because of persistent pain, there are a number of functional limitations such as walking, running, shopping, lifting, and traveling. Modifying the disease process early is important in RA for having a good prognosis. Diagnosis of RA is based on classification criteria that include clinical evaluation and laboratory testing. Presently, a range of biotechnological molecules can be used to treat the disease by modifying the inflammatory state and can improve the symptoms and slow down the rate of progression of the disease. Most patients with RA use complementary and alternative medicine, so this necessitates understanding these treatment systems from a multi-angle. RA patients live with severe pain, fatigue, stiffness, as well as emotional, social, and physical disability.4

Etiology and Pathophysiology

The pathophysiology of RA has been widely reported over the years. Several etiological factors have been identified in RA. Autoimmune responses against self-antigens, genetic predispositions, and a variety of environmental factors, e.g., viral or bacterial infections, have a direct influence on disease initiation and progression. Several reports support an association between the development of RA and exposure to an infectious agent, tumor necrosis factor, citrullinated proteins, heterocyclic amines, and periodontal disease. In both animal and human models, these infectious agents and genetic predispositions affect more than one organ, and both serous lining proliferation and subsequent fibroblast proliferation and collagen and proteoglycan degradation at synovial and cartilage joint tissues are reported as a major feature of RA. 5 This common understanding of the disease is quite complicated as it proceeds with an abnormal production of several pro- and anti-inflammatory cytokines, growth factors, and enzymes, such as tumor necrosis factor, lymphotoxin, interleukin-1, interleukin-6, interleukin-8, interleukin-14, interleukin-18, interleukin-32, and antigenic granulocyte and macrophage colony-stimulating factor, interferon, bone morphogenetic protein, parathyroid hormone-related protein, chemokine ligand 20, receptor activator of nuclear factor kappa-B ligand, secreted phosphoprotein 1, vascular endothelial growth factor, angiogenic factors, and matrix metalloproteinases. Several reports support the application of drugs that target immune cell proliferation, hormone release, or the application of monoclonal antibodies to block the effect of several cytokines in RA patients. The drugs mentioned above provide immediate symptom and inflammatory pain relief but are unable to cure the inflammation-immune imbalance of RA. The application of these drugs also increases more than one type of drug-related side effect. The digestive system, hepatobiliary, neurological, and extraarticular tissues are majorly affected by these drugs. RA and Ayurveda therapies can eliminate the causative factors of RA and gradually restore blood biochemistry, redox potential, and tissue function.6

Symptoms and Diagnosis

Swelling, pain, stiffness, and other symptoms of articular involvement vary significantly from the milder to the severe spectrum of the disease. Swelling is the initial reported feature and is usually worse in the morning or after periods of immobility. "Gelling" of morning stiffness can also be reported, often lasting from 30 minutes to 3 hours. Stiffness may also occur with or following the occurrence of swelling. Other features can be tender, warm, swollen joints, especially in the feet, wrists, and fingers. The issue of stiffness leads to a reduction in impact ability and serious loss in quality of life. It severely affects the activities of daily living such as personal care, dressing, and holding a cup. Patients can also characterize the more widespread features of the disease itself, including muscle weakness, diminished grip strength, and fatigue.7

Rheumatoid arthritis (RA) is also a systemic autoimmune condition that features extra-articular signs and symptoms of the illness. This chronic inflammation can affect the functions and physiology of other organs. Fibrous or vascular disorders occur with the most significant non-articular RA. There are a few individuals who have a higher propensity to have extra-articular RA, such as those who show some seropositive statistics, rheumatoid factor, and anti-citrullinated protein antibodies. However, the scope of the health care committees is so wide that they could be clinically relevant in the long run for the harm of the patient and some other co-morbidities. Most patients ultimately develop serious joint damage, commonly resulting in lifelong physical disability. In the latter stage, systemic inflammation damages organs such as blood vessels, intestines, liver, nervous system, kidneys, and heart. Therefore, the diagnosis and intervention of the condition are essential at the initial stage. A variety of criteria are used to confirm the diagnosis. These include responses from patients to physical assessment conclusions, inflammation from imaging studies, laboratory testing, and chronic occurrence. 8Tests for anti-citrullinated protein/antibody peptides and rheumatoid factor, which are mostly reported positive from the IgM and IgG antibodies of other seronegative descriptors, are a must for laboratory automation, but still only 20% of patients with such a descriptor. The use of imaging peri-articular decreases biomarkers indicates that before an unmistakable radiographic challenge, even with the presence of clinical signs, erosive features of joint issues by magnetic resonance imaging or ultrasonography assessment of magnetic imaging are very large predictors of major radiographic issues. Especially with the detection of up-to-date treatments and radiographic imaging, a particular focus is on the radiographic configurations showing the right patient with an increased risk of family problems. It is important to minimize and resolve the symptoms presented with proper and related treatment. Proper knowledge or articulate correlation of symptoms and pertinent management shows clearer regulation of the patient’s well-being.9

Principles of Ayurveda

The system of medicine known as Ayurveda is one of the oldest medical systems still in practice. Originating in the Indian subcontinent several thousand years ago, it continues to be practiced precisely as it was at its inception. 'Ayurveda' is a compound of the Sanskrit words ayus, meaning 'life', and veda, meaning 'knowledge'; hence, Ayurveda is 'the knowledge of life'. Unlike modern Western medicine, which places a stronger emphasis on addressing disease than on cultivating good health, Ayurveda focuses on health from a more holistic perspective. This ancient system of medicine places an emphasis on balance in all areas of an individual's life: physical, emotional, mental, and spiritual. Ayurveda also advocates for preventative care and management. Disease does not just spontaneously emerge; rather, it results from poor lifestyle choices, unwholesome thoughts and emotions, and damaging behavioral patterns.10

Ayurveda focuses on using the qualities of food, herbs, and natural treatments to match and balance the particular needs and characteristics of each individual. The materials we see, touch, and ingest have properties such as sweetness, hotness, coldness, heaviness, sharpness, moisture, and many other characteristics. All of these are able to act on us. Ayurveda uses these same characteristics to balance the needs of an individual by carefully selecting herbs, foods, oils, and other natural treatments that bear the right qualities to counteract and balance the undesirable effects. An important aspect of an individual's constitution is the three doshas or life forces. These are Vata, Pitta, and Kapha. Vata is composed of air and space and is associated with quickness, lightness, cold, and dryness; in the body, it has the functions of initiating movement and governing the nervous system. Pitta, composed of fire and water, governs digestion and metabolism and is associated with intelligence, intensity, and a moderate shape and weight. Kapha, composed of earth and water, is associated with solid bones and numerous body tissues, somewhat moderate strength, heaviness, balance, and easy-goingness 11. Ayurvedic medicine is predominantly guided by an individual's doshas, with outcomes offering a personalized approach to health. In Ayurvedic medicine, 'Agni' is responsible for digestion. This digestive fire processes the food we eat, extracting what is useful and converting it into what constitutes the bodily form. It can also be seen as key to maintaining a balanced – healthy – constitution. Immunologically, the six types of Agni are involved. Balanced Agni yields a helpful immune response by single migration or by another, suited to the circumstances and the individual. Converting this theory back to a contemporary, evidence-based scientific model could help guide interventions in diseases such as RA, where triggering of the immune system plays a pivotal role. Even with early losses, supported immune function could remain, so that a weaker trigger of modest strength did not result in RA.12

Concept of Doshas

In Ayurveda, each individual is classified into three body types based on behavioral traits: Vata, Pitta, and Kapha. Vata vitiates the doshas of the body, leading to disease; Pitta intensifies the present doshas and adds its own, acting as a catalyst for further exacerbation of diseases; Kapha blocks the channels that transfer the doshas. That is why, if the person's Vata, Pitta, and Kapha are in balance, then Vataroga cannot develop in the body. The classification of the doshas is based on the psychosomatic aspect of an individual, keeping the mind and body combination as its base. Each dosha is divided into five types according to their activities. It is said that fifty percent of the doshas lie in the stomach of the human being. The tridoshas are responsible for the normal physiological and psychological functions of the human body. An increase or decrease of any of these creates diseases. Diseases may be classified into two classes, namely endogenous and exogenous. Endogenous is again divided into three grades: Vata Prakriti, Pitta Prakriti, and Kapha Prakriti. According to these, Vata-related diseases may be classified into three types: rheumatoid arthritis and a few types of arthritis.13

I. Understanding Health and Diseases According to Doshas:

An individual can be considered a complete combination of doshas (Vata, Pitta, Kapha) with an important essence called 'Saramsa.' The following illustrations can provide a clear idea. Trying to categorize with a small sketch, an individual can be categorized as a complete combination of Vata, Pitta, and Kapha by dividing the individual into three parts. Because of the above classification, we can understand in which part of the body Vata is imbalanced and also determine the relation of imbalanced Vata with the vitiation of the other two doshas in diseased conditions. For example, all signs and symptoms are Vataprapaka, 'Dehendirya moha' - impotency in physical and mental action, and 'Dehenindriyartha anagni dourgunya' - the weakness of physical and mental sensations and organs, are based on the vitiation of Kapha dosha in the Ama type of diseases. The Vataprapaka Vikaras may be divided into three categories: Vata Pradhana Ama, Ama Pradhana, and Ama Pradhana Daschaya. An occurrence in equal proportion may be named 'Vata-Sammohan.14

II. Techniques for Identification of Prakriti of an Individual According to Ayurveda, the science of life, every human being in the world is categorized into three body types. Under this, the classification is made based on the percentage of Vata in his/her body. How to classify this? We narrate it in the paragraphs below: 15

1. Through the observation of the mental attitudes of a person.
2. Through the observation of the physical structure of the body.
3. Through the physical structure of the face.
4. Through the physical structure of the ear.

Role of Agni (Digestive Fire)

Agni, a fundamental concept in Ayurveda, plays an essential role in maintaining proper health. As long as the digestion process of the gastrointestinal tract is maintained, the individual remains healthy, so Agni becomes the hub of Samprapti, pathogenesis, as well as the hub of health, ultimate treatment, and maintenance of health. It governs digestion, absorption, and metabolism of food through the enzymes as well as hormones released after food intake. Digestion of healthy food is believed to yield healthy nutrient plasma products and their storage, as well as successful excretion. Lymphocytes and B-soluble nutrients specific to the lymph nodes are formed where they are able to enter peripheral blood. Tumor development leads to an immune response. So, Jatharagnis need to result in an autoimmune response, and its low power is called immune incompetence. A strong link is not there in the Raktav Dhatupakreavikar on the poor immune system renovation. Agni is a tool for Ama (toxin) to be kept in a local status. 16

From the above understanding of the role of Agni and its balance in disease prevention, it is interpretable that it could also be used in rheumatoid arthritis not only to relieve symptoms but even to offer full-proof therapy. Thus, agreeing with the principles of impurity, action, and therapeutic retreat. This is the stuff of intensives. Disease (Ama) Jatagaragn could spread immunity in the body, a center of Kshetra; according to this, nutritional advice is provided. Accordingly, it is explained about the use of Udardvarga and all the symptoms of viral anger Poorvaroop used in the treatment Henbeer Regimen. Ayurveda states that if Jatharagnis (digestive fire) the metabolic function of the stomach and, in turn, the whole body, is affected by the disease during the penetration, it is necessary to maintain the internal metabolism of the human body. 17

Ayurvedic Approach to Rheumatoid Arthritis

Rheumatoid arthritis (RA) is a common, progressive disease, and despite a wide range of available conventional medications, Ayurveda offers a holistic approach to the management of the disease. The pragmatic therapy of Ayurveda in RA is patient-specific and embraces an array of therapies that address the root cause of the disease. RA can be managed effectively by Ayurvedic treatment modalities, including allopathic, Rasayana and Vajikarana, Panchakarma, Shamana Aushadhi, Ahara and Vihara, and yoga. Panchakarma procedures are able to eliminate the pathogenesis and hence clear the doorway of Vata by detoxification and cleansing the body from the metabolic waste product while improving the metabolic system and thus reducing Vataprakopav. 18

Panchakarma therapy and Ayurveda are used for the detoxification of the body, mind, and spirit as detailed by Maharishi Patanjali and associated with yoga and meditation. The review suggests that with modern Ayurvedic care, care tailored to the needs of each patient, not only looks at the symptoms of the disease but also at the root cause of the disease, forming the basis of the patient's genetic constitution, and then provides personalized care for the underserved. This focus indicates how these chronic diseases or disorders can be managed by Ayurveda. With this approach, Ayurvedic management procedures such as Panchakarma, yoga, and herbs are found to be more effective in the management of RA. The treatment, prevention, and palliation of RA are exclusively dependent upon the holistic, naturalistic, empiric, and harmless nontoxic doctrines. 19

Herbal Remedies

The cornerstone of Ayurvedic treatment involves the prolonged intermittent administration of herbal medicines to rectify the accumulated dosha imbalance. The main effects of the herbal remedies are classically referred to as analgesic and anti-inflammatory. However, their action may be wider since they are believed to normalize the function of body channels. The selection and duration of treatment are to be modified according to the mutual constitution of the patient, the season, the digestive power, and the involvement of accumulated metabolic waste products in the pathophysiological condition. It is quite comforting that clinical practice, clinical studies, and recent clinical test reports support the wide use of classical herbal remedies, especially in conjunction with modern conventional treatment. 20

The following are some of the commonly used herbs that have successfully justified their role in the treatment of rheumatoid arthritis. It can be mentioned that the classic combination of herbal remedies, especially in combination with other therapeutic lines as well as asanas, is very important in achieving an optimal outcome. However, it is recommended to avoid self-selection of these herbs through over-the-counter outlets because, for maximum results, a combined individual combination of these remedies is to be intermixed. 21

Diet and Lifestyle Modifications

The Ayurvedic approach toward health and wellness gives due importance to what and when to eat, as well as particular lifestyle modifications required to enhance a patient’s own immunity against various illnesses. In Ayurveda, rheumatoid arthritis is considered a disease involving aama due to poor lifestyle and dietary choices. Patients are advised to select their diet based on their individual prakriti, dosha constitution, and aama severity. A prakriti-based diet including anti-inflammatory foods reduces the severity of illness. A diet that eliminates gluten, red meat, poaching food, and toxic processed foods containing artificial additives is effective in removing aama. The use of fresh fruits, anti-inflammatory food, and evening and early morning dietetic restrictions helps mitigate the symptoms of aama (joint swelling, pain). The use of whole foods gradually helps reduce vata, sattvic foods, and nourishes rasadhathu. A regular daily routine includes early morning yoga, physical exercise, jogging, walking, pranayam, and meditation or chanting mantra to stay healthy. Hence, it is essential to reveal the overall dietary and lifestyle modifications to manage rheumatoid arthritis. 22

Ayurveda balances physical and mental well-being according to the individual dosha. A balanced approach enhances and rejuvenates the overall health of an individual. Enhancement of digestion by removing the process of poaching food helps to reduce inflammation. These concepts of daily routine, along with the time to get up or eat, are well supported in the daily activity phases of circadian physiology. The daily activity phases are proposed as healthy alternatives to reduce pathogenic aama throughout the body, along with regulating the body’s circadian rhythm. Therefore, understanding and implementing the complete personalized diet and lifestyle modifications help the patient take a more active role in disease management. Moreover, integrating an individual approach based on the natural concept of wellness promotes a patient to take diseases seriously and endorse proven strategies. 23

Clinical Studies and Evidence

Numerous clinical studies have been conducted in the field of Ayurveda to authenticate its traditional usage across the globe. These research studies have supported that Ayurvedic treatments offer an important scope in the treatment of rheumatic ailments. Modern advancements like well-organized clinical trials and meta-analyses have shown their evidence-based significance in the development of treatment processes for various health problems, taking Ayurveda into consideration. Surveillance studies on the development of recommended practices for the management of lifestyle-related health conditions and degenerative diseases should redefine strategic priorities in prevention and health promotion, in addition to strengthening the evidence-based Ayurveda interventions for rheumatics, for their better application in the conventional healthcare system. This present text aims to redefine the contemporary significance of Ayurvedic interventions described in rheumatological practice, from highly effective pharmaceutical interventions to some of the 'health promoting' and 'disease-modifying' strategies described in Ayurveda for rheumatoid arthritis. 24

Recently, based on the clinical benefits mentioned in Ayurvedic classics for the management of Amavata, a number of interventional studies have been conducted and published in different scientific journals worldwide

that provide encouraging evidence towards the Ayurvedic interventions for the guidelines of the management of rheumatoid arthritis. Both individual and multi-herb Rasayana (rejuvenating) and hydrophilic formulations have been studied for their efficacy and safety in patients with RA. Trials on diet and lifestyle changes in RA patients are also promising. To date, a number of interventions have been verified that encourage the Ayurveda methodology regarding the treatment and prevention of joint pain, with appreciable scientific evidence. Unfortunately, research on these scientific studies is under-explored. This is going to be important public health research in the future. However, detailed systematic review articles have clinically authenticated the usage of Ayurveda in treating rheumatic diseases to date. Ayurveda, limited to spa therapies to assist in rheumatics, still needs discussion. Studies on Ayurveda interventions restricted to rheumatic disorders with manual therapy and dietary modification seem to be lacking in the studies described so far. Adoption of optimal approaches with an integrative model of health will be required in a sufficient number of supported clinical studies and cost-effective interventions when appropriate. Although all the evidence appears larger today, it was articulated based on limited research, which highlights a gap for further research. 25,26

DISCUSSION

Rheumatoid Arthritis (RA) is a long-lasting disease where the body's immune system attacks the joints, causing inflammation, pain, stiffness, and changes to the shape of the joints. In Ayurveda, RA is similar to Amavata, a disease mentioned in old texts that happens when toxins build up and the Vata dosha is disturbed. Ayurvedic treatment for rheumatoid arthritis (RA) takes a whole-person approach. It involves detoxifying the body, relieving symptoms, following specific food rules, and making changes to daily habits and routines. Amavata happens when the digestive system isn't working well, leading to the creation of Ama. This Ama spreads through the body and builds up in the joints, causing swelling and pain. This process is connected to how rheumatoid arthritis (RA) works, where inflammation caused by the immune system damages the joints. Vata dosha causes pain and dryness, while imbalances in Kapha and Pitta lead to stiffness and swelling. The Ayurvedic method focuses on correcting Agni, eliminating Ama, and balancing Vata to provide long-term relief.

CONCLUSION AND FUTURE DIRECTIONS

In conclusion, it is obvious that we need to understand our own modern medicine as much as the one we are proclaiming as the alternative to our patients. Approximately 70% of the entire population living in developing countries are majorly dependent on traditional medicine for the management of various health problems. Chronic conditions suggest improving efficacy, compliance, and lifestyle change for the patient, which is far better with Ayurveda. Hence, it is an urgent need of the hour to increase potential tools to draw trustworthy and transparent evidence for the effectiveness of Ayurveda. Rigorous research on the evaluation of the effectiveness of Ayurvedic intervention has been performed. But our current research on Ayurveda, though scientifically proven, does not gain a say equal to that of modern medicine and is confined to evidence-based treatments only. Thus, there is an urgent need to get Ayurvedic disciplines validated independently, registered, and practiced in different parts of the world.

Though studies reveal disease-independent measures are needed, many limitations have been noticed, and hence few future research suggestions are aimed at therapeutic solutions, which can be initiated in the real-world practice areas. Outcomes can be discussed with a conventional rheumatologist experienced in integrative medicine. If positive, further series of clinical studies could be taken as pilot phase I to assess the preliminary safety and efficacy of Ayurveda. Studies can be implemented to test the efficacy of Ayurvedic treatment in reducing disease activity, disease severity, and pain that are still not controlled by modern medicine better than sham interventions. Larger definitive trials can be conducted after the results of a variety of pilot trials. Given that a significant percentage of people in India use complementary therapies that overlap with Ayurveda, a case series will be useful for integration. Integration and other healthcare options can be suggested in modern healthcare institutions. It is also important to educate the public, healthcare professionals, and researchers about Ayurveda.

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