



AN INTEGRATED APPROACH IN THE MANAGEMENT OF RHEUMATOID ARTHRITIS – A NON-INTERVENTIONAL, OBSERVATIONAL STUDY.

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ABSTRACT

Rheumatoid arthritis is an auto immune disorder mainly affects synovial joints, which is most common in females than male. Mainly characterised by the Pain, stiffness in joints, and general debility, etc. A dramatic shift in drug discovery brings a significant change in RA management. But these medicines are having their own adverse effects on prolonged usage. In recent days it is seen that Health professionals looking towards evidence based alternative as well as complementary therapies along with conventional one to manage chronic conditions like RA. Such an integrative approach is definitely helpful in improving pain pattern as well as quality of life in RA patients.

Key words: Rheumatoid arthritis, Complementary and alternative therapies, Integrative medicine.

INTRODUCTION

Rheumatoid arthritis (RA) is an autoimmune disorder with a prevalence rate in developing countries standing around 0.1- 0.5 %¹. RA is characterised by prodromal symptoms like Morning stiffness, fatigue, pain in multiple joints, weight loss, etc. Morning stiffness is one of the invariable feature of inflammatory arthritis like RA. It mainly affects the small joints like inter phalangeal joints as well as toes. In acute onset it is often accompanied by symptoms like fever, lymphadenopathy etc. Rheumatoid nodules are the most common cutaneous lesion, mainly observed in the ulnar aspect of the forearm. Rheumatoid arthritis can present in any age, and is more common in women.

The most common factors involved in etio pathogenesis of RA are Genetic predisposition, oxidative stress, autoimmune reaction within the synovial membrane cytokines and chemokines IL-1, IL-2, IL-3, IL-4, IL-6, TNF- α , IFN- γ etc.

When looking at free radical reactions and Musculoskeletal disorders like rheumatoid arthritis, several studies have shown that oxidative stress possesses a significant increased risk of developing rheumatoid arthritis in those who have low levels of antioxidants or free radical scavengers.

It is seen that antioxidant defense mechanism, especially enzymes like SOD, catalase and glutathione peroxidase are low or absent in the blood plasma, synovial fluid. So the antioxidant defense system of the body cannot work properly. Especially in rheumatoid arthritis the increase Neutrophil release a substantial amount of free radicals within the joint space ,resulting in lack of oxygen to the joint space.As we know the anatomical and physiological aspects of the cellular membranes are extremely complex. When the free radical molecules come in contact with these membranes, then they produce lipid peroxidation result in membrane destruction. This damage causes pain, stiffness, and joint deformity.

RA can be diagnosed by the laboratory investigations like rheumatoid factor, C reactive protein. anti-CCP antibodies etc^{2,3, 4}, The treatment of rheumatoid arthritis has observed dramatic shift over last 20 years. It is mainly due to reliable tools for diagnosis and disease-modifying antirheumatic drugs (DMARD) like methotrexate, sulphasalazine, etc.^{5,6} using in combination with low-dose glucocorticoids⁷ and NSAIDs. Prolonged use of these drugs usually produces side effects like Gastrointestinal toxicity⁸, infections as well as malignancies⁹.

RA is a chronic, inflammatory, autoimmune, musculoskeletal disease, and it is observed that, there is a certain limitation of conventional management. It has been seen that the integrative approach like a conventional system of medicine along with complementary and alternative medicinal (CAM) therapies are more beneficial one in the management of RA. Here the main role of CAM is a supportive one. These types of integrated practices will help in both scenarios like pain management as well as lifestyle management psycho somatically.

Antioxidants and RA

Antioxidants are having a broad range of foods, living tissues, proteins, carbohydrates, DNA. The main antioxidants are useful in combating RA are flavonoids, Isoflavonoids, beta carotene etc.¹⁰. The dietary as well as nutritional supplements which act as an antioxidant in battling with Rheumatoid arthritis are turmeric, ginger, Vitamin A, Vitamin C, Vitamin E¹¹, Zinc, Selenium, Chromium etc.

Meditation

Mindfulness, mind body therapy and meditation helpful in pain management of rheumatoid arthritis. As we know stress is a provocative factor in all types of pain and RA in general associated with various forms of distress¹². Meditation is observed that, which is free from side effects and not resulted in any adverse events. Which is useful in the management of psychogenic stress in RA, especially in case of pain related manifestations.¹³

Use of Herbal analgesic and anti-inflammatory drugs

Boswellia acts by directly blocking the conversion of 5-lipo-oxygenase into leucotrienes thus reduces inflammation, as leucotriene stimulates the supra oxide formation.^{14,15,16} Hence Boswellia act as a natural analgesic and anti-inflammatory agent in the management of RA. Till now no contradictory report published on usage of Boswellia as a pain killer.

Garlic can be used as an antioxidant, anti-inflammatory and anti-mutagenic one. But it causes an increase in bleeding tendencies when used along with an NSAID like aspirin.

Guggulu botanically known as Commiphoramukul, which is commonly used in the Indian traditional system of medicine like Ayurveda, contains Guggulosteron and oleo-resins decrease the thickness of the joint and oedema.

Oleation and sudation therapy

We can use oil as a both as a food and as a pharmaceutical agent. Castor Oil is the fixed oil expressed from the seeds of *Ricinus communis*. It is composed of triglycerides, about 75% of which is triricinolein, is hydrolyzed by lipases in the duodenum and small intestine to release ricinoleic acid, an irritant, and is mainly responsible for purgative effect, thus helps in removing toxins from the gut¹⁷. As Castor oil is edible one it contains fatty acids, which considerably decreases the levels of prostaglandins and leukotrienes and thus reduces the intensity of the pain¹⁸. While sudation is useful in case of the onset of pain and it also produces relaxation of muscle tissue¹⁹.

Diet

Diet always plays a vital role in any disease management. It plays many roles like as preventive, curative, promotive. In case of RA an anti-inflammatory diet like ginger, turmeric, garlic, asafoetida helps a lot in arrest the progress of the disease, excluding gluten and sugar is more beneficial one.

DISCUSSION

Diet, lifestyle, exercise, relaxation techniques like yoga postures and meditation, various other non-pharmacological and non-device based strategies like use of sudation all helpful to improve the vagal tone which is a strong anti-inflammatory in nature. Usage of integrative, evidence based practice are effective, sustainable, economic one and not associated with the dreadful adverse events associated with the anti-rheumatic drugs in RA.

CONCLUSION

In the present situation, the health care professionals give the best for the patient. The whole scenario of health care delivery is changing day by day. Now a day's people showing more interest in searching alternative measures in the conditions like pain management, depression. There are many research already proved analgesic and anti-inflammatory effects can be

generated by the complementary and alternative system of medicines CAM and conventional system go hand in hand ,there will be a remarkable outcome in the management of RA.

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