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Effect of Naturopathy and Yoga Intervention for One Year on Improvement of Disability in Rheumatoid Arthritis Patients

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Abstract:

Aims: To find out the effect of naturopathy (massage, hot and cold fomentation applications) and yoga intervention for one year in improvement of joint movement and disability by measuring range of joint motion (ROM), Health Assessment Questionnaire(HAQ) and rheumatoid factor (RF) in patients with rheumatoid arthritis (RA). The goal of treatment was to study the regression of symptoms like joint pain, swelling, visible deformity and muscle weakness

Methods: Total of seventy five rheumatoid arthritis patients were enrolled and divided in two groups. Group 1 included 39 patients taking Allopathic medication. Group 2 included 36 patients taking naturopathy and yoga along with allopathic medication. Range of joint movement in shoulder, elbow, wrist, MCP, hip, knee, ankle, PIP was assessed bilaterally in terms of degree. Disability was assessed using HAQ, a self-reporting method (questionnaire) and an observational method.

Results and Conclusions: Restricted joint mobility appears to be an important determinant of disability in patients with RA. The patients, after naturopathy and yoga, experienced improvement in ROM for many joints of hand, shoulder, knee and hip, HAQ and RA factor. The study concluded that massage therapy, hot and cold fomentation along with yoga therapy, when used in conjunction with other prescribed treatments, can have a positive systemic effect on ROM, HAQ and RA factor and thus in getting symptomatic remission and in the effective management of rheumatoid arthritis.

Keywords- Rheumatoid arthritis (RA), Range of motion (ROM), Health Assessment Questionnaire (HAQ), Rheumatoid factor (RF)

INTRODUCTION:

Rheumatoid arthritis is an inflammatory, autoimmune disease that causes pain, joint stiffness—especially in the morning—and loss of function. It affects the structural integrity and function of musculoskeletal joints and eventually the entire body (Osborn, 2005) 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 sides 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 (Koehn, 2002). Rheumatoid

arthritis affects most of the joints of the body but certain joints, particularly those of the wrists, hands 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 knees are also involved initially in about one-quarter of cases, and both ankles and both elbows in about 1 in 6 cases. As the disease progresses, all these joints are likely to be affected. Once diagnosed of RA, patients generally spend their lifetime using traditional and alternative therapies attempting to manage and decelerate the debilitation process (Werner, 2005)

Treatment of rheumatoid arthritis should start as early as possible so as to reduce pain, stiffness and damage to the joint; minimize disability caused by pain or deformity; encourage disease remission and improve quality of life. Treatment is planned according to disease activity, types

of joints involved, general health and age of the person. Even though there is tendency to give rest to the painful joints but prolonged resting may increase the pain. Also painkillers may be of little help, which is why the main aim of the study is to reduce inflammation and damage to the joints.

India, China and Europe use alternative medicine and their health care system ranks well above other countries in quality of care and the outcome. Alternative medicine, used effectively for thousands of years includes ayurveda, naturopathy, yoga, unani, siddha homeopathy. Evidence for the effectiveness of alternative medicines (also known as complementary medicines) in rheumatoid arthritis is inconclusive as studies are often too small and are of short duration. Nevertheless, there is some evidence that certain supplements and natural therapies could have a role in managing the disease (Vitetta, 2008)

Treatment for rheumatoid arthritis requires rectification of lifestyle with the use of non-conventional modalities with increasing attention on patient's self-help in controlling the disease. The current approach is attempt to interrupt the inflammatory symptoms associated with the advancement of joint deterioration, minimize the occurrences of intense pain episodes and subside the condition into a remission phase. Naturopathy is a system of treatment of disease that avoids drugs and surgery and emphasizes the use of natural agent's i.e. air, water, herbs and physical means. In this study one of the pain management strategies considered was massage therapy, which may be of help for manually controlling symptoms in people suffering from RA. Massage is manipulation of tissues as by rubbing, stroking, kneading, or tapping with the hand or an instrument especially for therapeutic purposes. Thermotherapy is also commonly used in treating rheumatoid arthritis. Thermotherapy modality included for this study was Fomentation Therapy- a form of Hydrotherapy -- Hot and Cold water applications. Physical activity is also an essential part of the effective treatment of rheumatoid arthritis and yoga is one of the best types of exercises for treatment of RA. Yoga has been used as a means to explore the exterior and interior world and ultimately to achieve wisdom and knowledge of the sacred Indian texts: the *Vedas*, *Upanishads*, and *Shastras* (Feuerstein, 1989). It forms a complete exercise plan involving physical, physiological and psychological faculties of human being which significantly influences the musculo-skeletal system and is of great help for persons suffering from chronic illnesses.

Keeping in view the aforesaid, the present study was planned to find out therapeutic potential of naturopathy and yoga for one year in patients suffering from RA. The effect was evaluated by studying the parameters like range of joint movement in shoulder, elbow, wrist, MCP, hip,

knee, ankle and PIP bilaterally in terms of degree, RA and DAS-28 score. The goal of treatment was to study the regression of symptoms like joint pain, swelling, visible deformity and muscle weakness.

MATERIALS AND METHODS

The study was conducted in department of research, Babu Nature Cure Hospital in collaboration with department of Biochemistry, GIPMER. A total of Seventy five radiologically and serologically proven RA patients were enrolled and divided in two groups. Group 1 included 39 patients taking allopathic medication Group 2 included 36 rheumatoid arthritis patients taking naturopathy, yoga and allopathic medication. Written consent was taken from all the patients and ethical guidelines were followed during the study. The study had due approval from ethical committee of the institution. Rheumatoid arthritis patients satisfying the American College of Rheumatology criteria for rheumatoid arthritis were recruited by inclusion and exclusion criteria (Guidelines for the management of rheumatoid arthritis, 2002 update) after baseline investigation patient were given intensive information, education and counselling about risk factor of the disease and importance of naturopathy and yoga. After their awareness and counselling about the disease, naturopathy and yoga modalities were administered to patients.

TREATMENT

1) Naturopathy Treatment (Kellogge, 1918)

a) Massage: patients were provided massage to the affected parts using warm sesame oil having anti-inflammatory properties (50 ml per sitting) for 30 minutes. The techniques used were stroking, friction, kneading, percussion and vibration

Massaging directly to the inflamed joint was avoided in the treatment course. During inflammation massage was given to the areas which were above and below the affected joints to reduce inflammation.

b) Hot and cold fomentation was provided to every patient for 11 minutes – hot fomentation for 5 minutes and cold fomentation for 30 seconds for two rounds. This was followed by a heating compress (using a dry cotton cloth and woolen flannel) for 10 minutes. The temperature of both hot fomentation (40°- 45 °C) and cold fomentation (18°- 26 °C) was controlled well during the treatment period. The duration of cold therapy was less than heat therapy. This was because effect of cold is known to last longer than heat.

2) Yoga Therapy: The yoga therapies (20 min), practiced were Pawanmuktasana part I (anti-rheumatic), Shavasana and Pranayama (Bhramari, Kapalhati, Deep breathing and Nadisodhana) (Gheranda Samhita).

The total treatment period for each patient was one year. Therapies were administered thrice a week on alternate

days for first two months (1-2) then followed by twice in a week for the next four months (3-6) and in last six months (7-12) once a week.

On days without session, patients were advised to continue this practice for 20-25 minutes at home. The daily adherence to this program was evaluated by analyzing questionnaire that was collected every month. The treatment was modified or omitted to avoid strain, whenever there was any inflammation in the joints. Naturopath and yoga therapist followed the specific recommendations of orthopaedic surgeon for safe and healthy execution of treatment.

3) Allopathic Medicines

For delay in progression of RA, allopathic treatments were used in conjunction with naturopathy and yoga regime. The prescribed disease modifying drugs were Methotrexate, Sulfasalazine and Hydroxy chloroquine. For better management of the disease conditions, drugs like calcium and folate were also administered as per specific requirement. The doses were kept stable and the participants were asked to consult rheumatologists at the end of every month to review the medication. Principles of treatment remained same in both the groups and doses were modified according to the activity of disease.

Parameters Studied

Over years a number of methods have been devised for measuring disease activity in RA. These include patient questionnaires, joint counts, lab tests etc. In this study therapeutic effect of naturopathy and yoga was finally assessed with the following parameters

- a) **Health Assessment Questionnaire (HAQ):** HAQ is measurement of functional disability. Functional improvement in Activities of Daily Living (ADL) was studied by the Indian version of Health Assessment Questionnaire (HAQ) (Kumar et al., 2002). The Indian HAQ comprises of 12 questions (nine basic and three advanced activities of daily living i.e. dressing, bending, walking etc. on the standard HAQ format) relevant to Indian population. The score of 0,1,2,3 being given for without difficulty, with some difficulty, with much difficulty and unable to perform respectively. The total score divided by 12 gives the Disability Index (range 0-3).
- b) **Rheumatoid factor (RF)** - The blood samples were taken for Rheumatoid factor (RF) prior to the intervention and after a period of 12 months. (Hermann et al., 1986.)
- c) **Range of Movement (ROM)-**

Joints affected:-Rheumatoid arthritis affects most of the joints of the body (wrists, hands and feet) but certain joints are more likely to be affected. These include:

The metacarpophalangeal (MCP) joints—the row of knuckles on the hand closest to the wrist.

The proximal interphalangeal (PIP) joints—the second (or middle) row of knuckle on the hand the wrist joints.

The metatarsophalangeal (MTP) joints—the row of joints at the base of the toes.

Joint movements- various movements of different joints of the body e.g. Flexion (to move leg forwards, extension (to move leg backwards), abduction (to move your leg away from your side) were done. These all movements were done 5 to 10 times after completion of massage.

Range of Movement (ROM):- in shoulder, elbow, wrist, MCP, hip, knee, ankle, PIP were recorded in terms of degrees (Mark, 1992) (using the anatomical position as zero degrees) for the following:-

Shoulder Abduction, Extension Left and Right; Knee Flexion, Extension Left and Right; Hip Joint Extension, Flexion Left and Right; Proximal Interphalangeal (PIP) Extension, Flexion Left and Right; Metacarpophalangeal (MCP) Extension, Flexion Left and Right; Wrist Extension Flexion Left and Right; Elbow Joint Extension, Flexion Left and Right.

4. Statistical Methods

Results are expressed as mean \pm standard deviation (SD). Student's paired t test (two-tailed) from baseline to 12 months was computed.

RESULTS

A significant reduction in PIP extension and flexion left and right ($p < 0.001$) was found in control group not taking yoga and naturopathy treatment. On the other hand an improvement, although insignificant, was seen in the treatment group. In MCP extension left and right the reduction in control group or improvement in treatment group were also insignificant. MCP flexion left and right showed significant reduction ($p < 0.05$) in the control group not taking any treatment. In the treatment group the improvement was observed in the MCP flexion left only ($P = 0.05$) (Table 1).

A reduction in wrist extension and flexion left and right was found in control group. This reduction was significant only in wrist flexion left and right ($p < 0.05$). An improvement was seen in the wrist extension and flexion left and right in treatment group but that was non-significant. In control group elbow extension and flexion left and right showed a significant reduction ($p < 0.05$). The treatment group on the other hand showed improvement but that was not significant. Shoulder abduction and extension left and right showed reduction but that was significant only for the right side ($p < 0.01$). In the treatment group a significant improvement was observed in Shoulder abduction left ($p < 0.001$) and right ($p < 0.05$) and shoulder extension left ($p < 0.001$) (Table 2)

In control group there was a significant reduction in knee extension left ($p < 0.05$) and knee extension right ($p < 0.01$), knee flexion left and right ($p < 0.01$). In the treatment group a significant improvement was seen in the knee extension right ($p < 0.05$), knee flexion left ($p < 0.01$) and knee flexion right ($p < 0.05$)

In control group hip extension and flexion left and right showed reduction, significant only for hip flexion left ($p < 0.01$). The treatment group on the other hand showed improvement but that was significant only for hip extension right ($p < 0.05$). (Table 3)

Results of RA factor showed a significant improvement in only treatment group ($p < 0.001$). In HAQ a significant improvement was observed in treatment group ($p < 0.001$) as compared to control group ($p < 0.05$) (Table 4).

Table 1: Values of joints of wrist and hand in control and treatment (Naturopathy and yoga) group before and after a period of 12 months

Variable in degrees	Assessment	Control group (MEAN ± SD)	Treatment group (MEAN ± SD)
PIP extension left	Before	98.06±7.10	95.26±9.93
	After12 months	86.11±15.17***	97.95±7.32
	P value	5.9E-05	0.177
PIP extension right	Before	97.00±7.75	94.49±12.24
	After12 months	85.28±14.44***	97.44±8.18
	P value	5.6E-05	0.215
PIP flexion left	Before	97.78±7.22	95.64±8.52
	After12 months	85.56±14.82***	97.82±7.33
	P value	3.2E-05	0.23
PIP flexion right	Before	97.00±7.75	94.49±12.24
	After12 months	85.28±14.44***	97.44±8.18
	P value	0.000249	0.227
MCP extension left	Before	28.19±3.41	26.97±5.30
	After12 months	26.53±5.32	28.85±3.53
	P value	0.118	0.07
MCP extension right	Before	27.94±4.50	26.97±5.64
	After12 months	26.67±5.07	28.67±3.18
	P value	0.262	0.106
MCP flexion left	Before	47.33±5.83	44.36±8.52
	After12 months	46.39±7.52*	47.56±6.14*
	P value	0.043	0.050
MCP flexion right	Before	45.97±8.35	44.49±9.65
	After12 months	40.97±10.20*	46.79±7.21
	P value	0.026	0.235

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2: Values of different variables of arms in control and treatment (Naturopathy and yoga) group before and after a period of 12 months

Variable in degrees	Assessment	Control group (MEAN ± SD)	Treatment group (MEAN ± SD)
Wrist extension left	Before	55.97±17.56	59.54±17.28
	After12 months	52.78±17.38	64.10±13.22
	P value	0.44	0.194
Wrist extension right	Before	61.25±14.80	61.33±16.49
	After12 months	56.25±15.28	64.10±12.19
	P value	0.163	0.402
Wrist flexion left	Before	73.47±10.68	68.49±17.59
	After12 months	66.53±12.54	71.92±12.77
	P value	0.0127*	0.323
Wrist flexion right	Before	73.61±10.46	68.59±18.85
	After12 months	67.64±9.60	73.15±13.57
	P value	0.013*	0.223
Elbow extension left	Before	142.64±5.41	137.78±10.98
	After12 months	140.64±9.26	143.33±5.17
	P value	0.02*	0.117
Elbow extension right	Before	141.67±6.87	137.69±18.28
	After12 months	136.03±12.12	141.54±11.01
	P value	0.018*	0.264
Elbow flexion left	Before	146.67±8.94	143.97±11.37
	After12 months	140.97±12.53	147.82±6.16
	P value	0.03*	0.07
Elbow flexion right	Before	146.43±8.54	143.46±14.92
	After12 months	139.86±13.42	146.03±10.46
	P value	0.0177*	0.38
Shoulder abduction left	Before	155.83±29.99	155.26±29.58
	After12 months	145.28±28.83	172.95±12.23
	P value	0.132	0.001***
Shoulder abduction right	Before	163.89±23.82	157.31±30.13
	After12 months	147.78±28.19	171.03±16.19
	P value	0.010**	0.014*
Shoulder extension left	Before	51.11±10.70	48.08±13.89
	After12 months	48.47±10.06	57.31±5.11
	P value	0.284	0.00021***
Shoulder extension right	Before	51.81±11.22	52.95±24.59
	After12 months	47.36±10.52	56.67±6.21
	P value	0.087	0.363

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3: Values of different variables of Legs in control and treatment (Naturopathy and yoga) group before and after a period of 12 months

Variable in degrees	Assessment	Control group (MEAN ± SD)	Treatment group (MEAN ± SD)
Knee extension left(degree)	Before	120.61±15.27	118.31±17.58
	After12 months	112.36±14.56	124.74±13.28
	P value	0.022*	0.072
Knee extension right	Before	121.08±13.34	119.56±15.88
	After12 months	112.22±14.56	125.90±11.17
	P value	0.009**	0.045*
Knee flexion left	Before	123.75±12.44	121.54±17.81
	After12 months	114.17±15.74	130.77±9.77
	P value	0.0055**	0.0058**
Knee flexion right	Before	125.14±11.86	122.31±16.74
	After12 months	114.86±15.09	130.38±10.66
	P value	0.002**	0.013*
Hip extension left	Before	29.31±2.44	28.46±4.32
	After12 months	28.94±2.90	29.36±3.28
	P value	0.569	0.304
Hip extension right	Before	29.58±1.84	28.72±3.93
	After12 months	29.22±2.46	30.00±0.00
	P value	0.483	0.045*
Hip flexion left	Before	118.06±4.01	115.44±16.34
	After12 months	113.33±7.93	120.00±12.33
	P value	0.00214**	0.085
Hip flexion right	Before	116.39±5.93	112.44±23.28
	After12 months	113.53±7.93	117.54±13.34
	P value	0.087	0.239

p* < 0.05, *p* < 0.01, ****p* < 0.001**Table 4:** Values of different variables of Legs in control and treatment (Naturopathy and yoga) group before and after a period of 12 months

Variable in degrees	Assessment	Control group (MEAN ± SD)	Treatment group (MEAN ± SD)
RA Factor(U/ml)	Before	120.94±93.99	174.72±120.05
	After12 months	127.06±91.79	111.82±79.63***
	P value	0.598	0.001
HAQ(0-3 range)	Before	1.4±0.46	1.17±0.52
	After12 months	1.1±0.54*	0.52±0.49***
	P value	0.0134	0.001

p* < 0.05, *p* < 0.01, ****p* < 0.001

DISCUSSION

In RA patients it is important to maintain a balance between sedentary life and exercise. While traditional guidelines have restricted RA patients to only gentle

exercise, research suggests that more intense exercise may not only be safe, but may actually produce greater muscle strength and overall functioning (Lineker et al., 2001) and does not exacerbate pain or worsen the disease (Bearne et al., 2002). Naturopathy and yoga movement exercises that are less traumatic for the joints can be beneficial in maintaining flexibility and strength. These can be extremely helpful in getting back to a point where one can perform everyday activities without pain or difficulty

The present study has shown that in treatment group, following Naturopathy and yoga practice, ROM improved significantly for MCP flexion left, shoulder abduction left and right and shoulder extension left, knee extension right, knee flexion left and right, hip extension right. On the other hand in control group a significant reduction was observed in PIP extension and flexion left and right and MCP flexion left and right, wrist and elbow extension and flexion left and right and shoulder abduction and extension left and right, extension and flexion left and right knee and hip flexion left. For the functional disability, as measured by HAQ, the improvement when compared in both the groups was found to be significant in naturopathy and yoga treated group as compared to control group.

The psychological benefits of yoga such as stress reduction, fewer depressive symptoms, improved coping and well-being contribute to greater overall health. According to a study nearly 75% to 90% of visits to a primary care physician are related to stress and anxiety. Nearly any type of stress (acute or chronic) impact the immune system. In addition to generalized anxiety and sleep disorders, it can result in significant physiological problems, including cardiovascular, gastrointestinal and immunological. (Kathleen and Head 2009) Yogic techniques involve isometric contraction which is known to increase skeletal muscle strength and reduce stress and anxiety, improve autonomic functions by triggering neurohormonal mechanisms by the suppression of sympathetic activity (Sengupta 2012). Yoga can be very beneficial for people with RA because it takes a whole-body approach to joint problems. There is an emphasis on realigning bones and on improvement of overall posture. This can relieve stress on the joint, make movement easier, lessen pain and prevent further damage. Yoga may serve as a valuable adjunctive therapy for improving physical function, mental wellness, and overall quality of life among individuals with rheumatic disease (Matthew et al., 2014). It has been 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 (Evans et al., 2013). Research evidence supports the belief that certain yoga techniques may improve physical and mental health through down-

regulation of the hypothalamopituitary adrenal (HPA) axis and the sympathetic nervous system. It has been hypothesized that some yoga exercises cause a shift toward parasympathetic nervous system dominance, possibly via direct vagal stimulation (Innes et al., 2005; Chandra et al. 2012).

Physical therapy provides stretching and strengthening exercises. Strengthening muscles surrounding the arthritic joint helps to stabilize it, increase range of motion and lessen pain. Massage is becoming a more widely-recognized way to cope with the pain and stiffness of arthritis. It is traditionally used for improving flexibility and circulation, easing pain, and reducing stress and anxiety. Research on massage for rheumatoid arthritis is scanty but a few studies have shown that it may help relieve pain. Massage therapy significantly affects systemic disorders because of the promotion of detoxification through vasodilatation, the improvement of overall circulation by encouraging blood and lymph flow, the activation of the parasympathetic nervous system division by lowering blood pressure, heart rate and respiration rate inducing relaxation and stress reduction (Prekumar 2004; O'Brien 2006). In massage the systemic rubbing with hands help to nourish not only the parts acted upon but also the whole body by its known thermal and mechanical effects. It also increases the body metabolism. By measuring grip strength pre and post massage therapy treatment, a significant improvement in mobility and function was observed in comparison to the control group (Field et al., 2007). Moreover, to increase formation and flow of synovial fluid in affected joints, treating the surrounding joint tissues with light friction and vibration and establishing a methodical treatment interval is suggested (Wine 1995). The gentle circular friction techniques have been used to help increase the delivery of oxygen and nutrients and assist in the removal of waste products surrounding the affected joints (Osborn 2005). Massage is contraindicated when the joint is in an acute inflammatory stage. However, when in remission, massage can effectively manage symptoms, prevent inflammation, and reduce joint damage (Lowe 2006). Massage treatments, while able to achieve qualitative muscle release in an affected joint region, can also positively affect the physiological systems of a patient with RA and help to alleviate and prolong the deteriorating effects of the disease (Robin 2007). Research showed that adults with rheumatoid arthritis may feel a decrease in pain, as well as greater grip strength and range of motion in wrists and large upper joints, after receiving regular moderate-pressure massages for a 4-week period (Field et al., 2013). In Fomentation Therapy, the blood is stimulated and revitalized and white blood cells increase. When the heat is applied, the blood vessels dilate and with the cold they

contract. This action causes the blood to surge back and forth, increasing the flow and stimulating stagnant blood and lymph. This increases circulation to any organ or limb far more rapidly than normal circulation. When this happens, the healthy blood cells are concentrated in the activated area (Darrin 2013). The Increased blood flow delivers oxygen and nutrients, and removes cell wastes. The warmth decreases muscle spasm, relaxes tense muscles, relieves pain and can increase range of motion. Cold therapy produces vasoconstriction, which slows circulation thereby reducing inflammation, soreness, muscle spasm, pain and temporarily relieving joint pain caused by an arthritis flare. It has been found that cold compression therapy improves the control of pain and might thus lead to improvement in range of movement (Kullenberg et al., 2006). Patients experience a reduction in pain complaints, improved mobility, reduced pharmaceutical use and an overall better impression of the health care system. The majority of alternative medicine users appear to have chosen alternative medicine mainly because to avoid certain medical procedures. Additional reasons being the desire for more comprehensive treatment and an expectation of fewer side effects (Peter 2011).

The present study of one year of naturopathy and yoga for RA was able to demonstrate statistically significant improvements in ROM and HAQ. All the patients of group 2 given fomentation after massage and yoga therapy had good relief in pain, swelling and stiffness of muscles resulting in improvement of range of motion of many joints. Some patients in the treatment group were able to decrease or discontinue allopathic medications. Combinations of medications with 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.

CONCLUSION

For treatment of RA, naturopathy and yoga therapy can be used effectively as an additional therapy to allopathic medicine. The patients experienced improvement in ROM for many joints of hand, shoulder, knee and hip. 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 arthritic condition. Over the years there has been a beginning to see a positive change in the perception of alternative medicine. But for making naturopathy and yoga a routine in daily life constant efforts on part of the patient is required. One can

reap great benefits by incorporation of alternative medicine into the health care system.

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