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# Holistic health in Osteoarthritis: An Ayurvedic approach

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## Abstract

The holistic approach exposed the link between ill-health and socio-economic conditions. It revealed how diet and lifestyle factors combine, to relieve the disease manifestations like osteoarthritis. **Objectives:** The objective of the study was to observe a holistic approach in the management of osteoarthritis and to establish significance of association between disease, diet, and lifestyle. **Material and methods:** The chosen strategy is suitable for preventive, curative, and promoted actions in relation to osteoarthritis. In present study, non-randomized, prospective case series methodology is adopted. The study group comprised of 20 men and women and was categorized by large similarity in the total symptom score, intensity of pain, range of motion, and range of walking, duration of walking, and mental status. **Results:** The impact of quality of life, pain, and functional abilities were assessed according to the standard criteria and observed that the group two exhibits significantly improved pain and walking function as assessed by the Hospital for Special Surgery (HSS) knee score  $p < .001$ . **Conclusion:** Holistic approach in the management of osteoarthritis has better efficacy, but needs further studies to establish statistical relevance. Disciplined diet and lifestyle significantly influences in the management of osteoarthritis.

**Key words:** Holistic health, Ayurveda, osteoarthritis

## Introduction

Recent studies suggest of mounting concern over a number of health care models such as integrated, inter professional and holistic health etc. The role of these models has been tackled by health care professionals and patient. These approaches are still in sequestration. The holistic approach is just an idea of adopting an inclusive approach (Shahtahmasebi, 2006). WHO's goal of "health for all" in India, can be achieved by collaboration of contemporary medicine with traditional system of medicine like *Ayurveda*. According to *Ayurveda*, health means equilibrium of body humors (*tridosha*), digestive fires (*agni*), body tissue (*dhatu*), well contented body, mind and soul (*Swastha*). Disease can

be tackled by detox therapies (*Panchakarma*) measures or palliative approach i.e. herbal, and herbo-mineral medication. Preventive point of view consists of daily regimen, seasonal regimen, way of life-like diet, and life style as explained during this period that should be followed regularly. Promoted point of view should be rejuvenation therapy, which will help to boost the immune system of body (Valiathan, 2003).

Globalization and drastic change in lifestyle bring shift from communicable to non-communicable disorders. WHO report says that among non-communicable disorders, contribution of musculoskeletal diseases are increasing day by day (Lozano et al, 2013). Osteoarthritis (OA) is a crippling disorder that is becoming so common in modern era and especially engulf geriatric population (Laupattarakasem, Laopaiboon, Laupattarakasem, & Sumananont, 2008) and around 130 people will get affected by OA in 2050 (Wittenauer., Smith, & Aden, 2013). Conventional system of medicine (Blagojevic,

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Jinks, Jeffery & Jordan, 2010) is making its sincere effort in giving a good life for these patients. However, OA is a degenerative disorder (Maetzel, Li, Pencharz, Tomlinson & Bombardier, 2004) and patients are in search of better life supportive measures. A non-randomized, clinical, prospective study was carried out with polyherbal Ayurvedic medications, diet, and lifestyle mentioned in Ayurvedic treatise to assess their efficacy in giving a better pain relieving effect.

The Ayurvedic therapeutic strategy of OA includes the following

1. Determination of body-constitution (*prakruti*) by history taking and observation
2. Diagnosis (*nidana*) i.e. nature, degree, and extant of imbalance of bodily humors (*tridosha*)
3. Life style modification
4. Dietary modifications
5. Purification of body through detox therapies
6. “Designer medicine.”

It is observed that holistic approach will help in the management of osteoarthritis. It includes dietary, nutraceutical supplements, use of oleation, and fomentation therapy, etc. Pain and stiffness assistance can be delivered by maintaining body weight and exercise, etc. Same methodology is used in this holistic approach.

**Material and Methods**

Patients were selected on standard protocol of Ayurveda philosophy and those who were visiting Ayurveda OPD. A one-month nonrandomized prospective, case series study was undertaken in eleven male and nine female patients, who were diagnosed with chronic osteoarthritis. The patients were grouped into two groups; one is treated with Ayurvedic medicine i.e. one tablet of *Agnitundi Vati* thrice a day, regularly for a month, and another with Ayurvedic medication along with diet and lifestyle modification as mentioned in Ayurvedic treatise. Patients with secondary OA and associated renal, hepatic, or gastric diseases were excluded from the study. The patients were informed to stop the previous non-steroidal anti-inflammatory drugs (NSAIDS) prior to the start of the treatment. The drug was withdrawn and the patients

were evaluated at the end of the month, from the day of starting the treatment. The impact of quality of life, pain, and functional abilities were assessed according to the standard criteria.

**Results**

The effect of treatment on the total symptom score of 20 patients with OA was equally beneficial in both groups at the level of  $p < .001$  (Table 1). Patients of group two showed better results ( $p < .001$ ), when compared with the group one. Ayurvedic medication, diet and lifestyle has improved the movement and walking abilities markedly ( $p < .001$ ) as assessed by Hospital for Special Surgery (HSS) knee score (Table 2 and 3).

Table 1:  
*Comparison of Symptoms within the Groups*  
N=20

Groups		Mean ± SEM	't' value	p value	
Total symptom score.	Group one	BT	7.7 ± 0.25	17.36	≤.001
		A T	3.3 ± 0.19		
	Group two	BT	7.7 ± 0.25	26.00	≤.001
		AT	2.2 ± 0.14		
Intensity of pain.	Group one	BT	6.0 ± 0.16	23.87	≤.001
		AT	3.0 ± 0.14		
	Group two	BT	8.0 ± 0.28	18.49	≤.001
		AT	2.0 ± 0.16		
Range of motion	Group one	BT	6.0 ± 0.16	23.87	≤.001
		AT	3.0 ± 0.14		
	Group two	BT	8.0 ± 0.28	18.49	≤.001
		AT	2.0 ± 0.16		
Range of walking	Group one	BT	8.0 ± 0.28	18.61	≤.001
		AT	20.0 ± 0.62		
	Group two	BT	7.0 ± 0.22	30.15	≤.001
		AT	22.0 ± 0.39		

*BT – Before Treatment, AT – After treatment*

Table 2:  
Comparison of Symptoms between the Groups

		N=20		
Symptom	Group	Mean ± SEM	't' value	p value (two tailed)
Total symptom	Group one	4.45±0.25	3.16	≤.01
	Group two	5.50±0.21		
Intensity of Pain	Group one	3.00±0.12	8.62	≤.001
	Group two	6.00±0.32		
Range of Motion	Group one	3.00±0.12	8.62	≤.001
	Group 2	6.00±0.32		
Range of walking	Group one	12.00±0.64	3.68	≤.001
	Group two	15.00±0.49		

Table 3:  
Overall Results

Groups	Group one		Group two	
	Frequency	Percentage	Frequency	Percentage
Cure	00	00	00	00
Markedly improved	03	30	04	40
Improved	02	20	03	30
No change	05	50	03	30

**Discussion**

The life style with pressure, time bound tasks, and commercialization of all the services lead to stressful life. The urban people are most affected compared to the rural ones. Lack of satisfaction and craze to acquire things makes life miserable. People are attracted to this system, only in case of chronic diseases. Accordingly, this medicinal system though less understood by public, needs popularity as a preventive modality.

The objective of the whole study was to observe a holistic approach to the management of osteoarthritis and to ascertain association between disease, diet, and lifestyle. For instance, controlling weight is placing strain on your knees or ankles, which can be achieved by diet and nutrition, and gentle exercise.

From comparing the results in both the groups, it was found that group two had significant result over group one, which states the role of diet and exercise. Diet and nutrition includes use of fats, oil, and sweets sparingly; two to three servings of milk, yogurt, and cheese group,

including vegetable group like cabbage and carrot etc., and five servings of fruits. Other food items involved are meat, poultry, fish, dry beans, eggs, nut group and fruit group like apple, grapes, banana, and orange; use of dietary as well as nutraceutical supplement like Glucosamine, (Rindone, Hiller, Collacott, Nordhaugen, & Arriola, 2000), phytoestrogens like soya protein, oil in a form of dosage modalities like rubificiants, liniments, and lotions etc., as these agents contain fatty acids, which reduces prostaglandins, leukotrienes, and help in pain management (Déciga-Campos, Montiel-Ruiz, Navarrete-Vázquez, & López-Muñoz, 2006; Carvalho, et al. 2012). Use of fomentation therapy produces muscle relaxation (Lehman, Brunner &Stow, 1958). Gentle exercise can reduce joint pain by increasing blood flow, shapes strong muscles, and minimizes the stiffness and joint deformities.

**Conclusion**

Diet and life style play a vital role in the health status and disease progression in human. Work environment, individual aptitude towards the work culture, capability to accept challenges, food system, office, and home environments are few aspects, which influences the progress and management of the disease. Well-disciplined diet and lifestyle have a great influence in the management of osteoarthritis.

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