

Osteoarthritis and Its Management with Naturopathy and Yoga - Case Report

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DOI: <https://doi.org/10.52403/ijrr.20220335>

ABSTRACT

Osteoarthritis of Knees (OA Knees) also known as degenerative arthritis or degenerative joint disease is a group of mechanical abnormalities involving degradation of joints, including articular cartilage and subchondral bone. Associated comorbid conditions such as obesity increase the symptoms. Drugs taken to relieve the symptoms have their own side effects. Here, I have presented the management of osteoarthritis associated with the combined use of Yoga, Naturopathy, and Physiotherapy with diet control.

Keywords: Osteoarthritis (OA), Osteoarthritis of Knees (OA Knees), Naturopathy, Yoga, Physiotherapy, diet control

INTRODUCTION

Osteoarthritis (OA) is the most common form of arthritis and a leading cause of disability in middle and old age.¹ Symptoms of osteoarthritis of the knees include morning stiffness, gelling after periods of inactivity, and pain. As the disease progresses, cartilage is lost and joints may become enlarged and more limited in their range of motion resulting in impaired function in patients' basic activities of daily living, severely affecting their quality of life.²⁻³ Conservative therapeutic approaches to treating osteoarthritis rely mainly on non-pharmacological and/or pharmacological therapy.⁴ Although significant attention has focused on stretching and strengthening the quadriceps muscles for reducing symptoms of knee OA,⁵⁻⁶ yoga is one of several

practices that have the potential to be effective in OA as well.⁷ Yoga improves both flexibility and strength and could theoretically be beneficial to some musculoskeletal problems. The use of the Iyengar approach to hatha yoga emphasizes strength, flexibility, and relaxation, with particular attention to the alignment of body structures (e.g., the relationship of the distal to the proximal extremities and the extremities to the spine and torso).⁸ Here, I am going to present a case report of 55 years old female having bilateral knee osteoarthritis treated with yoga and naturopathy.

CASE REPORT

A 56-Year-old obese female patient visited Yog Wellness Center, Sultanpur, Uttar Pradesh, India with presenting complaints of pain in bilateral knees for 4 months, an increase in body weight since 2-3 years, irregular bowel movement. History of pain in the bilateral knee joint and swelling with morning stiffness and the pain was continuous till 15-20 min after waking up from bed and then it becomes gradually normal. She described the pain as a deep ache, it is more in the antero-medial aspect of both the knees. Her pain was more in the right knee joint (scale-7) than left knee (scale-6) and it was aggravated while climbing stairs, in long-standing as well as while walking for a longer distance. Usually, her pain got relieved by taking medication (NSAIDs). She was hypertensive for 8 years. On clinical examination, tenderness and crepitus were

present in both the knees, both knee joints felt warm, limping in the gait, on alternate leg raising., pain on the back of the knee and posterior side of the thigh. Straight leg raising (SLR) of hip Joint showed 45⁰ for right and 60⁰ for left. Obers Test of both knees showed limited extension and flexion. Antero-posterior and lateral X-ray views of both knee joints revealed mild osteophyte formation, the joint space appeared to be fairly maintained on the right, on the left minimal suspicious reduction in the medial tibiofemoral joint space was noted. (Figure 1) The level of Vitamin D and Serum vitamins B12 was 8.89 ng/ml and 188.50 pg/ml respectively. Based on findings, a provisional diagnosis of osteoarthritis was made.



Figure 1: Antero-Posterior and lateral views of both knee

Treatment Plan and Treatment Progress

Conservative management was started with Yoga and Naturopathic remedies. (Table 1)

Treatment	Time (min)	Effects
Mud Therapy 1. Mud pack eye pack 2. Direct mud application 3. Oil +Hot sand fomentation of both legs	<ul style="list-style-type: none"> • 8 • 6 • 12 	<ul style="list-style-type: none"> • Relax the muscles and improve circulation, improve metabolism. • Reduce joint pain.
Hydrotherapy 1. Gastro-Hepatic Pack 2. Steam bath with chest pack. (110-114f) 3. Cold leg pack with Epsom salt 4. N. leg pack with Epsom salt 5. Hot leg pack with Epsom salt.	<ul style="list-style-type: none"> • 4 • 9 • 5 • 4 • 3 	<ul style="list-style-type: none"> • Regulate circulation and improve irregular bowel movement. • Opens up the pores and helps cleanse the skin, loose up the joint increases flexibility, and reduces the pain. • Reduce swelling and stiffness.
Massage Therapy Partial massage to hips and legs Partial massage to abdomen and low back	<ul style="list-style-type: none"> • 9 • 5 	<ul style="list-style-type: none"> • Massage relieves the pain of the muscle and relaxation of muscle improves the tone and range of motion of the joints.
Physiotherapy 1. Interfacial Therapy to both knees 2. Ultrasound to both knees	<ul style="list-style-type: none"> • 8 • 9 	<ul style="list-style-type: none"> • Stimulate the nerve and relief the pain. • Increase the blood flow and decrease the swelling.
Pack Mustard pack to both knees.	<ul style="list-style-type: none"> • 12 	<ul style="list-style-type: none"> • Wet mustard powder produces a chemical called Allylisoithiocyanate which absorbed through the skin as a transdermal drug. • It stimulates nerve ending in the skin and distract the body from deeper seated pain.
Acupuncture	<ul style="list-style-type: none"> • 12 	Du- 20, LI-4, LI-11, St -34 ,35 ,36, 44, Sp - 9, 10, UB - 11 ,32,36, 40, 54, GB -34, Ex- 31 ,32
Yoga Therapy	<ul style="list-style-type: none"> • 20 	
Sun Therapy	<ul style="list-style-type: none"> • 2 	<ul style="list-style-type: none"> • Helps the body to metabolize Vit D • Enhance the immune system. • Elimination of the toxic through sweating and encourage circulation. • Strengthening the bones

Yoga therapy was continued with the following protocol:

1. Shukshmvayama, 2. Standing Series: a) Tadasana b) Ardhashalabhasana c) Kati chakrasana, 3. Supine Series: a) Uttitapadasana b) Savasana c) Setubandhasana 3. Prone series a)

Bhujangasana, b) Ardhashalabhasana, c) Makarasana 4. Pranayama: a) Anuloma villoma b) Brahmari c) Suryabedhana and Chandrabhedan d) Sheetali 5. Meditation: a) A, U, M kara chanting. The yoga session was followed by knee strengthening exercises.

Diet Therapy

6 am	2-3 Glass plain water
7 am	Drumstick leaf powder with lukewarm water
8 am	Lukewarm water + honey + ½ lemon
11 am	Carrot juice / Pineapple juice / Orange juice/Papaya/ Banana/ Dates /Ragi malt
12.15 pm	Vegetable salad
1 pm	2 Multigrain chapati, boiled vegg, Green chutney (Til and coriander)
4 pm	Tender coconut water /1 glass buttermilk /Ragi malt
6.30 am	Boil vegetable/Water melon/ Muskmelon/ Papaya.
9.30 am	lukewarm water + honey +1/2 lemon

Progress

1 st week	<ul style="list-style-type: none"> • She felt good and relaxed, Mild relief in pain stiffness and swelling, Pain scale: Rt knee – 6 & Lt knee – 5 • Weight – 88.25 kg • Blood Pressure 160/ 98 mmHg • Pulse rate 70
2 nd week	<ul style="list-style-type: none"> • She felt good and relaxed. • Reduced pain stiffness and swelling also, Her pain scale: Rt knee – 5 & Lt knee - 4 • Weight 87 kgs • Blood pressure 152 /98 mmHg • Pulse rate 74
3 rd week	<ul style="list-style-type: none"> • Range of Motion of knee: <ul style="list-style-type: none"> Rt lying knee ext. = 0 to 15⁰ Rt knee flex. = 0 to 100⁰ Lt lying knee ext. = 0 to 20⁰ Lt knee flex. = 0 to 110⁰ • Muscle strength Grade Test: - <ul style="list-style-type: none"> Right knee –Grade 4 (Good) Left knee–Grade 4 (Good) • Her pain scale: Rt knee-4 & Lt knee –3 • Weight 86 kg • B.P 146/90 mmHg • But her pain was reduced while doing flexion & extension.
4 th week	<ul style="list-style-type: none"> • Range of Motion of knee: <ul style="list-style-type: none"> Rt lying knee ext. = 0 to 15⁰ Rt knee flex. = 0 to 100⁰ Lt lying knee ext. = 0 to 20⁰ Lt knee flex. = 0 to 110⁰ • Muscle strength Grade Test: <ul style="list-style-type: none"> Right knee – Grade 4 (good) Left knee – Grade 4 (good)) • Her pain scale: Rt knee – 3 & Lt knee -2 • Weight – 84 kg • B.P 138/80 mmHg • Reduced swelling, pain & stiffness. • But her pain was reduced while doing flexion & extension, able to fold the knee. • Increased range of motion of hip Joint i.e., Rt- above 60 degree & Lt- 90 degree
5 th week	<ul style="list-style-type: none"> • Pain scale: Right:- 2 & Left :- 1 • Weight: 82 kgs • Blood pressure: 130/ 74 mmHg • Pulse rate: 80 B.P.M • She was able to climb the stair and able to fold the knee. • Muscle Strength Grade Test: Right knee-Grade 4 (good) & Left knee – Grade 5 (normal) • Right lying knee flexion= 100 degrees & Left lying knee flexion =110 degree • Straight leg raising: Right leg= 90 degree & Left leg = 90 degree

After the 5th week, the instructions were given for the follow-up period to take dry drumstick leaf powder with lukewarm water, Sesame seed with jaggery, Dates, Ragi malt, Orange, Pineapple, Papaya, Watermelon, Lemon, Banana, Muskmelon, Bottlegourd, Broccoli, Spring onion, Beans, Shimala mirch, Pattagovi, Gilkhi, Tomato, Green chili, carrot, Garlic, Mint, Coriander, Cumin seeds, Turmeric, Fenugreek, Pumpkin.

Exercises will be continued: Sunbath, loosening exercise, Hip & Knee exercise, Asana and Pranayama recommended. Cold compress upon the abdomen 45 minutes before meals, Pillow below the knees and in between knee during sleep.

Precaution for postural care: Do not use stairs, do not stand for a longer time, Change the postural care every one hour,

while exercise/yoga do not give much pressure on the knee.

DISCUSSION

Exercise interventions, in general, are considered beneficial for osteoarthritis of the knee, and similar mechanisms might come into effect with yoga. Yoga, for example, might improve leg muscle strength, especially muscles supporting the knee joint, which in turn will decrease joint load.⁹ Improved muscle function might also increase microcirculation, and counter the progression of osteoarthritis. Yoga sequences include a variety of postures to increase the range of motion, similar to static stretching, which might improve stiffness, and joint function.¹⁰ Beyond physical activity, yoga also often incorporates breathing and relaxation exercises. These exercises stimulate the parasympathetic nervous system can help break the stress–pain cycle involved in chronic pain conditions, and can also facilitate the release of muscle tension and counter the muscle tightening that often occurs around vulnerable joints.¹¹ The dose of yoga varied considerably among studies. Regular engagement in physical activity at a minimum of three times per week is considered necessary to increase physical fitness and confer health benefits among most forms of exercise. Herbal medications reduce the activation of immune cells and the activity/production of collagenase and MMPs. These changes can lead to an improvement in OA and RA symptoms. Herbs may also synergistically improve the efficacy of traditional drugs, such as MTX and diclofenac, with a low risk of adverse effects.¹²

CONCLUSION

Findings of this case report suggest that Yoga, Naturopathy and Physiotherapy with proper diet modification help to alleviate the symptoms of osteoarthritis.

Acknowledgement: None

Conflict of Interest: None

Source of Funding: None

REFERENCES

1. Peyron J, Altman R. The epidemiology of osteoarthritis. In: Moskowitz RW, Howell DS, Goldberg VM, et al, eds. Osteoarthritis Diagnosis and Medical/Surgical Management, 2nd Edition. Philadelphia: WB Saunders, 1992:15–37.
2. Reginster JY. The prevalence and burden of arthritis. *Rheumatology (Oxford)*. 2002; 41(Supp 1):3–6.
3. Pereira D, Peleteiro B, Araujo J, Branco J, Santos RA, Ramos E. The effect of osteoarthritis definition on prevalence and incidence estimates: a systematic review. *Osteoarthritis Cartilage*. 2011;19(11): 1270–85.
4. Zhang W, Doherty M, Arden N, Bannwarth B, Bijlsma J, Gunther KP, et al. EULAR evidence based recommendations for the management of hip osteoarthritis: report of a task force of the EULAR Standing Committee for International Clinical Studies Including Therapeutics (ESCISIT). *Ann Rheum Dis*. 2005;64(5):669–81.
5. Hurley MV, Scott DL. Improvements in quadriceps sensorimotor function and disability of patients with knee osteoarthritis following a clinically practicable exercise regime. *Br J Rheumatol* 1998;37:1181–1187.
6. van Baar ME, Assendelft WJ, Dekker J, et al. Effectiveness of exercise therapy in patients with osteoarthritis of the hip or knee: a systematic review of randomized clinical trials. *Arthritis Rheum* 1999; 42:1361–1369.
7. Kolasinski SL. Yoga for degenerative joint disease. *Altern Med Alert* 2001;4:28–31.
8. Garfinkel M, Schumacher HR. Yoga. *Rheum Dis Clin North Am* 2000;26:125–131.
9. Peeler J, Ripat J. The effect of low-load exercise on joint pain, function, and activities of daily living in patients with knee osteoarthritis. *Knee*. 2018;25(1):135–45.
10. Middleton KR, Magaña López M, Haaz Moonaz S, Tataw Ayuketah G, Ward MM, Wallen GR. A qualitative approach exploring the acceptability of yoga for minorities living with arthritis: ‘where are

- the people who look like me?'. Complement Ther Med. 2017;31:82–9.
11. Vallath N. Perspectives on yoga inputs in the management of chronic pain. *Indian J Palliat Care*. 2010;16(1):1–7.
12. Shep, D.; Khanwelkar, C.; Gade, P.; Karad, S. Efficacy and safety of combination of curcuminoid complex and diclofenac versus diclofenac in knee osteoarthritis. *Medicine* 2020, 99, e19723.
- How to cite this article: Singh P. Osteoarthritis and its management with naturopathy and yoga - case report. *International Journal of Research and Review*. 2022; 9(3): 318-322. DOI: <https://doi.org/10.52403/ijrr.20220335>
