

Effects of Hatha Yoga on Knee Osteoarthritis

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Abstract: *The goal of Hatha yoga exercises for those with osteoarthritis in their knees. Studies on the effects of Yoga on various chronic ailments have found that these activities have a good impact on these conditions. We decided to test the effects of these workouts on knee osteoarthritis because it is fairly frequent in middle-aged people.*

Keywords: Hatha yoga

I. INTRODUCTION

Osteoarthritis is a debilitating and chronic illness. This is the second most frequent outpatient complaint, affecting roughly 10% of the human population with chronic pain and inflammation. The most common joint affected by primary osteoarthritis is the knee. Knee osteoarthritis is more common in women and overweight adults, and it affects mostly the elderly and middle-aged. The illness progresses slowly, and bilateral and symmetrical joints are heavily impacted. Pain, stiffness, and decreased range of motion (ROM) are some of the symptoms, which limit activity and lower quality of life. In such cases, the major goal of rehabilitation is to reduce discomfort, restore function, and improve the patient's quality of life. Treatment options for knee osteoarthritis fall into three categories:

1. Medicine
2. Surgical
3. No medicinal.

Osteoarthritis is usually treated with no steroid anti-inflammatory medications. In some circumstances, corticosteroids may be injected directly into the joint. These drugs have a slew of negative side effects that affect the heart, digestive system, and kidneys.

Surgical therapy methods include debridement and osteotomies, which are just transient reliefs that simply slow the progression of the ailment. Other surgical procedures, such as joint arthrodesis or arthroplasty, may be required as the disease progresses. Joint arthrodesis is not popular because it completely reduces the range of motion of the joint. Knee arthroplasty is a common therapy for severe osteoarthritis of the knee. However, surgical treatment is both stressful for the patient and his or her family, as well as costly

Yoga is a psycho-physical activity that blends gentle motions with muscular training in order to improve people's well being. The Indus Valley culture dates back to 200 BC, and this ancient physical and mental exercise approach dates back to that time. Yoga is now defined as "a practise and implementation of mind and body in human beings' life processes in order to maintain peace within oneself, community, and nature." Modern medicine believes that yoga's effects on the muscles and bones, immune system, neurologic system, and sympathetic activity, among other things, affect people's health. Yoga particularly increases flexibility and muscular strength, as well as physical balance, fitness, and pain relief. Reducing stress, blood pressure reduction, and metabolic management are just a few of the benefits.

1.1 AIM

As a result, the goal of this study is to see how successful yoga is at treating pain, function, psychosocial issues, and overall quality of life in people with clinically confirmed knee osteoarthritis and rheumatoid arthritis.

II. MATERIAL AND METHODS

All classic writings and published research papers have been examined.

Review of Texts and Research Paper

On the basis of available material and research in this subject, research was conducted to investigate the effects of yoga activities on pain, morning stiffness, and anxiety in patients with knee osteoarthritis.

According to the findings of a study done on two groups, the following conclusions were reached.

The first group received only physical therapy, while the second received both physical therapy and yoga. According to the findings, combining yoga with physical therapy has greater good results than physical therapy alone. The patients in the second group showed a higher reduction in pain, morning stiffness, and anxiety.

Yoga is one of the least harmful sports, with scientific evidence of its beneficial physiological and mental effects in the treatment of chronic illnesses.

One of the most frequent inflammatory disorders is osteoarthritis.

Exercise Training

Each yoga session included activities such as asana (movement), pranayama (breathing), and meditation (relaxation).

Every workout has three parts: 15 minutes of warm-up exercises, 15 minutes of major exercises, and 15 minutes of cool down activities.

During this time, the notion of overload was used to raise the number of repeats or the time spent holding a move, or to do more difficult exercises, depending on each patient's capacities.

Yoga for knee pain

List of yoga exercises for knee pain Butterfly Pose



Procedure

Sit with your legs stretched out in front of you on your yoga mat. Keep your spine straight and bend your knees so that your feet's soles are opposite each other. Then, as if you were a butterfly, move your thighs up and down.

Butterfly stance is beneficial to the abdominal organs, ovaries, kidneys, and bladder.

Improves cardiac circulation in general.

Inner thighs, knees, and groynes are stretched. Aids in the treatment of mild depression.

Aids in the relief of menopausal symptoms.

Bridge Pose



Procedure

Lie down on your back on the floor, knees bent. Keep your arms flat as you stretch them along the floor. Gently push your feet and arms into the ground. As you elevate your hips toward the ceiling, release your breath. Setup Bandha Sarvangasana is the Sanskrit term for Bridge posture.

Bridge posture has the following benefits:

It expands the chest, neck, and spine. Back, buttocks, and hamstrings are all developed.

Hips are stretched. Improves blood circulation.

Pose of a Cat



Procedure

In cat pose yoga, lift your spine toward the ceiling while keeping your shoulders and knees in place. Allow your head to drop to the ground, but avoid crushing your chin into your chest.

Cat position is a yoga practice that warms the body and helps the spine to be more flexible.

It helps to stretch the back and neck muscles.

The abdominal organs are improved and strengthened.

It also expands the chest, allowing for slower, deeper breathing.

Cow Pose



Procedure

In cow posture yoga, bend your spine toward the floor, keeping your shoulders and legs in place. You raised your head to the ceiling.

Cow stance is a yoga posture that warms the body and helps the spine to be more flexible. It helps to relax the back and neck muscles.

The abdominal organs are enhanced and toughened.

It also opens up the chest, allowing for slower, more in-depth breathing.

Cobra pose



Procedure

Lie down on the floor and gently press the tops of your feet and thighs, and also the pubis, into the floor. On an inhale, bring your chest up from the floor, just to the height at which you can maintain a connection between your pubis and your legs.

Cobra posture has the following benefits: It stretches the muscles in the shoulders and chest. Lower back rigidity is reduced.

Arms and shoulders are developed. Improves adaptability.

It energizes the heart.



Procedure

Set your knees directly beneath your hips and your hands little forward near your shoulders to begin. Turn your toes under and spread your palms, index fingers parallel or slightly turned out. Take a deep breath out and lift your knees off the floor.

Downward facing dog has the following advantages: It calms the mind.

Aids in the relief of mild depression and stress. Boosts the body's levels of energy.

Shoulders, hamstrings, calves, arches, and hands are all relaxed. Arms and legs are developed

Locust Pose



Procedure

Lie down in the locust posture. Lie down on your back on the mat and elevate your head and feet toward the ceiling, placing your hand on the back of your head.

Pose of the locust has the following advantages: Increased flexibility. It helps strengthen the core.

Aids in the relief of mild despair and stress. Boosts the body's levels of energy.

Shoulders, hamstrings, calves, arches, and hands are all stretched. Arms and legs are developed.

III. RESULTS

In the yoga group, pain and symptoms were significantly reduced, while scores on daily activities, sports, leisure activities, and quality of life were significantly improved.

IV. DISCUSSION

Practicing yoga enhances physical strength, mobility, and flexibility, according to these findings. Yoga therapy-related changes in OA symptoms may have a mechanism that is unknown. Yoga therapy's comprehensive approach, which incorporates physical postures (asanas), breathing practices (pranayama), meditation (dhyana), spiritual and emotional cultures discussions, may aid in OA symptom relief. Yoga treatment may help to boost cartilage proteoglycan levels and prevent cartilage degradation. This is beneficial for strengthening the periarticular muscles (quads and hamstrings), which ordinarily contract to stabilise the knee joint. Yoga can also help to prevent the loss of synovial fluid volume by stretching and strengthening different sections of the body, massaging and providing fresh blood to the internal organs, as well as rejuvenating the nervous system and lubricating the joints

V. CONCLUSION

Yoga seems to be a conservative therapeutic option for patients with osteoarthritis, in addition to standard treatments and drugs.

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