CRIMSON PUBLISHERS
Wings to the Research

Researches in Arthritis & Bone Study

Opinion

Role and Importance of Therapeutic Management for Knee Osteoarthrosis

Karthikeyan T[1]*, Moorthy A S[2], Preeti Sing[3]

[1]*Physiotherapy centre, NIMHANS, Bangalore, India*

[2]*JPN Apex Trauma Centre, AIIMS, New Delhi, India*

[3]*Six Face Consultancy, New Delhi, India*

***Corresponding author:** Karthikeyan T, Physiotherapy centre, NIMHANS, Bangalore, India*

Submission: October 03, 2018; **Published:** October 05, 2018

Introduction

Osteoarthrosis (OA) is a degenerative, non-inflammatory, a common cause of disability in elder age and can affect multiple joints. OA is characterized by progressive loss and degeneration of articular cartilage, sclerosis of the sub-chondral bone, and formation of osteophytes [1]. These changes often lead to pain, loss of mobility and muscle function, restriction in activities of daily living, and decreased quality of life [2]. Osteoarthrosis is the most common condition affecting synovial joints. Osteoarthrosis or degenerative joint disease is the orthopaedic condition most frequently seen in clinical practice [3]. Patients with knee OA are managed in primary care, and they represent a large group seen by physical therapists. Osteoarthrosis (OA) of the knee is the most common joint disorder, with its prevalence increases with age. Current physical therapy managements for knee OA are aiming to reduce pain and improve functional performance. The effectiveness of modalities and therapeutic exercises has been reported [4].

OA is described as a condition of cartilage degeneration, stiffening of the underlying sub-chondral bone (sclerosis), and active new bone formation (osteophytes). In later stages of the disease, the pathological changes in cartilage and bone are followed by pathological changes in other tissues of the joint and its surroundings, such as synovial membrane, capsule, ligaments and muscles. This may lead to capsular restriction, instability of the joint, and muscle atrophy [5]. These changes will often lead to a reduced load ability of joints, which will often result in functional disability. Osteoarthrosis (OA) is a degenerative, non-inflammatory, a common cause of disability in elder age 1-4 and can affect multiple joints [3]. OA is characterized by progressive loss and degeneration of articular cartilage, sclerosis of the sub-chondral bone, and formation of osteophytes. These changes often lead to pain, loss of mobility and muscle function, restriction in activities of daily living, and decreased quality of life.

Osteoarthrosis is the most common condition affecting synovial joints. Osteoarthrosis or degenerative joint disease is the orthopedic condition most frequently seen in clinical practice. Patients with knee OA are managed in primary care, and they represent a large group seen by physiotherapists [6]. The main symptoms of patients with OA of the knee are pain that typically worsens with weight bearing and activity and improves with rest, and stiffness and gelling of the involved joint after periods of inactivity. As the disease progresses, additional impairments are loss of joint mobility, decrease of muscle strength, postural deformities and instability [7]. Especially in elderly patients, OA has a major impact on their functioning in daily life and frequently leads to limitations of activities. For example, the patient's performance of daily activities such as walking, kneeling, dressing and gardening becomes limited. Also, coping behavior and psychological factors such as depression fear, and avoidance behavior can influence pain and movement functions, and lead to limitations of activities. OA can lead to absence from work and to a decline in quality of life [8]. Radiographic changes are seen in over half of all people older than age 65 with OA of the knee. In contrast, data obtained from autopsy studies indicate that there is almost universal evidence of osteoarthritic damage in people aged 65 and over [9]. The major criteria for diagnosis of OA are joint pain for most days of the month. This is contrasted to radiographic criteria, in which many patients do not report joint pain. Evidence based physical therapy managements for knee OA are aiming to reduce pain and improve functional performance. Having knee Osteoarthrosis can sometimes seem like a double-edge sword. Osteoarthrosis (OA) of the knee is the most common joint disorder, with its prevalence increases with age [10]. More disability and clinical symptoms result from OA of the knee than from any other joint. Physical therapy treatment approach which enhance to balance of keeping your knee joints moving just enough so they're strong and healthy, and physical therapy helps you do that [11].

Physical therapy can help to reduce the pain, swelling, and

Copyright © All rights are reserved by Karthikeyan T.

stiffness of knee Osteoarthrosis and it can help improve knee joint function. It can also make it easier for you to walk, bend, kneel, squat, and sit. The therapeutic clinical utility of functional benefits for patients with knee Osteoarthrosis and may delay or prevent the need for surgery [12]. Physical therapy treatment strategy which can help to reduce the pain, swelling, and stiffness of knee Osteoarthrosis, and it can help improve knee joint function. The two main types of physical therapy approach which consists of passive and active treatments. This treatment tailored strategy which can help make your knee OA more treatable. The passive way of treatments, the physical therapy modalities does resume the majority of the work. But with active treatments, you do more of the work, such as at-home exercises [13].

Common passive and active Treatments for Knee Osteoarthritis

A. Cryotherapy: Which working on the principle of Lewis hunting reaction. The hunting reaction or hunting response is a process of alternating vasoconstriction and vasodilation in extremities exposed to cold.

B. Heat therapy: Heat therapy which augments to increases blood flow, decrease stiffness in the knee joints and muscles surrounding the knee. For example, the physical therapist can place a warm heating pad on your knee joint to promote circulation.

C. Hydrotherapy: Pool therapy sometimes referred to as aquatic therapy. The way of treatment performed through water to decrease your knee osteoarthritis symptoms. There are several advantages of hydrotherapy. For example, the affected OA patient advised to do gentle exercises in the water (which won't aggravate your joints). The therapeutic benefit of warm water can help facilitate motion as well as help you deal with pain and other knee OA symptoms.

D. Strengthening exercises: The key components of strengthening exercises which can do it at home, especially muscle power above three considered. This evidence based strengthening protocols of the leg which can help make your knee joints stronger. Strengthening lower extremity muscles alone can help decrease the pain of knee OA.

E. Flexibility exercises: Because knee OA often makes it hard to move, flexibility exercises are very important. Doing them regularly can help increase range of motion, make your knees more flexible, and restore normal knee joint function.

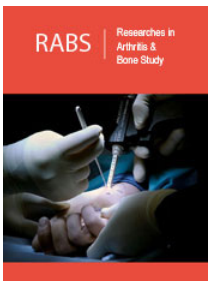
Both strengthening, and flexibility exercises are important components of treatment aspects. Because they counter protect the strain off the knee OA. Learn more about exercise for knee Osteoarthrosis in our article about exercising to manage knee Osteoarthrosis. The combinations of patella-femoral-tapping, muscle stretching, wax therapy, various pharmacological drugs, strengthening and coordination exercises along with techniques, various exercise protocols. The manual therapy play key role to reduce OA tightness and increase of the joint space.

Reference

1. Robertsson O, Wingstrand H, Onnerfalt R (1995) Intracapsular pressure and pain in coxarthrosis. J Arthroplasty 10(5): 632-635.
2. Arnoldi C (1994) Vascular aspects of Osteoarthritis. Acta Orthop Scand Suppl S2: 61-82.
3. Penninx BW, Messier SP, Rejeski WJ, Williamson JD, Di Bari M, et al. (2001) Physical exercise and the prevention of disability in activities of daily living in older persons with Osteoarthritis. Arch Intern Med 161(19): 2309-2316.
4. Mossa P, Slukab K, Wright A (2007) The initial effects of knee joint mobilization on osteoarthritic hyperalgesia. Man Ther 12(2): 109-118.
5. Dieppe P (1995) The classification and diagnosis of osteoarthritis. In: Kuettner KE, Goldberg VM (Eds.), Osteoarthritic disorders. American Academy of Orthopaedic Surgeons, Rosemont, USA, pp. 5-12.
6. Kuptniratsaikul V, Tosayanonda O, Nilganuwong S, Thamalikitkul V (2002) The efficacy of a muscle exercise program to improve functional performance of the knee in patients with Osteoarthritis. J Med Assoc Thailand 85(1): 33-40.
7. Dekker J, Boot B, van der Woude LH, Bijlsma JW (1992) Pain and disability in osteoarthritis: a review of biobehavioral mechanisms. J Behav Med 15(2): 189-214.
8. Sarzi Puttini P, Cimmino MA, Scarpa R, Caporali R, Parazzini F, et al. (2005) Osteoarthritis: an overview of the disease and its treatment strategies. Semin Arthritis Rheum 35(Suppl 1): 1-10.
9. Kraus VB (1997) Pathogenesis and treatment of osteoarthritis. Med Clin North Am 81(1): 85-112.

Creative Commons Attribution 4.0 International License

For possible submissions Click Here Submit Article



Researches in Arthritis & Bone Study

Benefits of Publishing with us

- High-level peer review and editorial services
- Freely accessible online immediately upon publication
- Authors retain the copyright to their work
- Licensing it under a Creative Commons license
- Visibility through different online platforms