Osteoarthritis of Knee and Aquatic Physical Therapy

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Abstract

Knee osteoarthritis (OA) is a chronic degenerative disease of inflammatory, common in the older person that is characterized by changes in the articular cartilage, osteophytes and thickening of the subchondral bone. The objective of this short communication is to address the importance of exercises in knee osteoarthritis. Aquatic physical therapy (APT) is a safe and effective alternative for individuals with knee osteoarthritis. Aquatic physical therapy should be considered the first therapeutic option for individuals with osteoarthritis of the knee as it reduces pain, increases range of motion and strengthens muscles.

ABBREVIATIONS

OA: Osteoarthritis; ROM: Range of Motion; APT: Aquatic Physical Therapy

INTRODUCTION

Knee osteoarthritis (OA) is a chronic degenerative disease of inflammatory, common in the older people, that is characterized by changes in the articular cartilage, osteophytes and thickening of the subchondral bone [1,2].

Individuals with OA may have loss of balance, muscle weakness, proprioceptive deficit, altered posture control and lower range of motion (ROM). Muscles strengthening of the thigh and hip muscles are very important for joint stability and pain reduction [3]. The objective of this short communication is to address the importance of exercises in knee osteoarthritis.

MATERIALS AND METHODS

Exercises for OA

Exercise is a therapeutic strategy to minimize effects on the muscular system, preserving independence, improving quality of life and functional capacity. However, some impact exercises may aggravate the patient’s condition [1,4]. Aquatic physical therapy (APT) is a safe and effective alternative for individuals with knee OA.

Aquatic physical therapy

Exercise in the liquid medium reduces joint overload by up to 90%, improves movement and reduces chronic pain. Aquatic physical therapy is a safe rehabilitation modality for rheumatic diseases in the older people and offers multidimensional resistance for the strengthening of quadriceps and hamstrings, important muscles in knee stabilization. Specific exercises depend on the stage of rehabilitation that an individual is in, as well as their needs and characteristics. Aquatic physical therapy should be considered the first therapeutic option for individuals with osteoarthritis, when compared with other treatment modalities [5-7]. The figures below illustrates an activity in the liquid medium (Figures 1&2).

Figure 1 Individuals with knee OA walking in the pool.

Figure 2 Stretching of gastrocnemius.
Results and Discussion

Some benefits of aquatic physical therapy for individuals with OA:

- Reduces pain
- Increases ROM
- Strengthens muscles
- Relaxes the muscles
- Promotes quality of life and well being

Conclusion

Aquatic physical therapy should be considered the first therapeutic option for individuals with osteoarthritis of the knee as it reduces pain, increases range of motion and strengthens muscles.

References