

Home Rehabilitation in Patients After Primary Total Knee Arthroplasty

NCT02409719

Document Date: October 21, 2019

Date of Study Closure: January 24 2019

Statistical Analysis

Sample was calculated that 76 participants per group using media difference test with a standard deviation of 7 and an expected magnitude of difference at least five points on the WOMAC scale with a power of β 80%, confidence 95% with statistically significant p of ≤ 0.05 with a 20% error.

Brief Summary:

The investigators include patients attending the outpatient clinic in the area of Orthopedics and Traumatology of the investigators hospital with a diagnosis of knee osteoarthritis, which treatment requires surgery. Patients will be divided into two groups. In both groups, they will be given verbal, clear and detailed information on the approach to follow, the exercises given in brochures, and in the study group a schedule will be given in order to record rehabilitation exercises in patients after total knee replacement (TKA). Both groups will be assessed before and after surgery, together with outpatient follow-up by, WOMAC, Visual Analogue Scale and OKS (Oxford Knee Score).

Detailed Description:

Osteoarthritis (OA) is the most common rheumatic disease worldwide. OA cause joint pain and occupational disability in the adult population. In Mexico, OA is one of the top ten reasons of consultation in primary attention care.

Joint arthroplasty is a major advance in the treatment of chronic joint pain. It is indicated in patients in whose conservative medical therapy has failed. Total knee arthroplasty (TKA) is a surgery that reduces pain and improves function and quality of life in patients with knee disorders, actually is one of the most successful medical procedures. However, a critical consideration in patients with TKA is the successful control of postoperative pain. An adequate pain control allows faster rehabilitation, reduces complications and is highly correlated with patient satisfaction. A multimodal pain management decreases the use of narcotics, improve pain scores, increase patient satisfaction and allows early recovery.

Regarding postoperative rehabilitation, its suggested that rehabilitation programs are based on a biopsychosocial philosophy and integrate exercises and self-management interventions are effective in the treatment of osteoarthritis. Rehabilitation therapy an important area that should be considered. It helps people recover faster from their illness, injury or medical procedures and make possible to get back to their daily activities.

The WHO describes rehabilitation as a process that aims to enable people to maintain and achieve their physical, sensory, intellectual, functional, psychological and social level in an optimal way. It is known that rehabilitation involves contributions from various health disciplines, including physical therapy and occupational therapy and offered in inpatient, outpatient and community patients.

In patients with total knee replacement, rehabilitation interventions may involve education and exercise before surgery, early mobilization while being in the hospital and a postoperative program, along with an adequate pain management.

Perioperative care has shown an improvement in the recovery, it reduces hospital day stay, convalescent and risk of postoperative medical complications.

It has been shown that early initiation of rehabilitation within 24 hours after total knee arthroplasty reduces in-hospital time and decreases the number of sessions required to achieve autonomy, balance and normal gait. Madsen et al. demonstrated that rehabilitation exercises at home have the same effect as those made in rehabilitation group within six months postoperatively, based on a study of 80 patients randomly divided into a control- study group.

Optimal pain management is vital seeking to achieve the goal of recovery called fast track. It involves early therapy with specialized protocols, early discharge and quick recovery. Lamplot et al. demonstrated in a prospective randomized study of 36 patients, using this method, a decrease in opioid consumption and its adverse effects, a decreased pain score, a shortening time for physical therapy and an increase in patient satisfaction.

Postoperative analgesia can be achieved by a variety of techniques. These include: intravenous analgesia, epidural analgesia, techniques for peripheral nerve block and periarticular injections. All aim to control pain in patients and provide the better satisfaction.

Integrating these interventions in a clinical pathway, better functional results are obtained, hospital stay is reduced and there is an improvement in the patient's recovery, mainly in short-term.

Minimum Age: 18 Years Maximum Age: 90 Years Sex: All Gender Based: -

Accepts Healthy Volunteers: No

Criteria:

- Inclusion Criteria: Age between 18 and 90 years, Patients with Knee osteoarthritis (OA) grade 4 (Kellgren-Lawrence based on radiographic findings), Total Knee Arthroplasty (TKA) for primary OA and Rapid rehabilitation desire.
- Exclusion Criteria: Age <18 and > 90 years, Patients with Knee osteoarthritis grade 1-2 (Kellgren-Lawrence based on radiographic findings), Patients with asociated Rheumatic syndromes, Patients with anticoagulant therapy, Patients with hepatic problems, Diabetes Mellitus, Coagulopathy, hearth conditions, immunodepressed, or infections,

Drugs abuse history, Psychiatric disease, Pregnant patients and Patients with hemoglobin values < 11g/dl , platelets < 150,000/uL.

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Links: URL: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3092498/>

Description: Epidemiology of Knee and Hip Arthroplasty: A Systematic Review

URL: <http://emedicine.medscape.com/article/320061-overview>

Description: Total Joint Replacement Rehabilitation