

Approaches to Rehabilitation Exercises During Hospitalization After Total Knee Arthroplasty

Opinion

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As humans get older, arthritis is the most common in their knee joints. After the diagnosis of arthritis, they want to delay the operation as much as possible with non-surgical therapy, but eventually undergo Total Knee Arthroplasty (TKA). TKA is among the most common elective procedures performed worldwide. Advances in science and medical technology have delayed the surgery of TKA from 60s to 70s as human life expectancy has been extended. Sometimes, before performing TKA, you may die because of other diseases. Sometimes, you may undergo the surgery to correct your deformed leg or receiving treatment with stem cell procedures. However, many elderly people undergo artificial joint surgery as the pain in the knee joint. Most will have surgery on both knees, with one surgery followed by the other 7-10 days later. Although antibiotics and analgesic are administered immediately after surgery, they are unable to load their weight because they are accompanied by extreme pain and swelling, and the sensation of the feet becomes dull.

During the period before surgery on the other knee, exercise such as straight leg raise, bending knees, and pulling ankles in a non-weighted state should be performed at the same time while undergoing physical therapy. And after surgery on the other leg, physical therapy and weight-bearing exercise should be performed. Both face-to-face rehabilitation by trainers at the center and rehabilitation by telephone interview have been reported to have similar effects. However, Most of the elderly who have undergone the surgery have weak muscles, such as the hip and back as well as muscular atrophy of the knee, and lack the will to exercise on their own.

In Korea, they are more often hospitalized at oriental medicine hospitals or rehabilitation hospitals than returning to their daily lives after being discharged from the hospital after orthopedic surgery. The reason is to benefit from the medical insurance system. In oriental medicine hospitals and rehabilitation hospitals, stability in the bed

and treatment at the level of physical therapy take precedence over active rehabilitation exercises under weight bearing, which further accelerates muscle atrophy caused by aging. For this reason, even after three months of surgery, they are often unable to load their weight or still have difficulty living in an unstable posture.

After TKA, it is most effective to continue exercising to advance range of motion of the joint and strengthening exercise of muscle rather than in-hospital physical treatment. Even if you have operated on your knee, you should do various muscle strengthening exercises such as ankles, hip joints, back, and shoulders, as well as neuromuscular and functional exercises, and movement exercises, rather than rehabilitation exercises for your knee joint only. If these mixed rehabilitation exercise programs are implemented one week after surgery, you will be able to improve not only psychological satisfaction, but also walking speed, sense of balance, and physical function.

We would like to introduce a rehabilitation exercise program after TKA. For a week from immediately after surgery, ice packs are continuously performed, while SLR, ankle push and pull (Figure 1), and knee bending are performed 4 times a day, 15~30 repetitions a time in non-weighted state. In addition, weight shifting exercise (left/right, forward/backward) and walking exercise in place should be performed at least twice a day using a walker. And you should stand on a bed or wall and then bend your knees (Figure 2) and climb stairs. It is recommended to practice even if it is accompanied by a little pain (VAS 3). At first, your hips will be twisted and your posture will be messed up, but if you repeat it continuously, you will be much more comfortable walking as hip flexion, knee flexion, and ankle movements become natural. After removing the suture of the surgical site, Rehabilitation exercise is performed while performing patellar mobilization (Figure 3) to remove swelling around the patella and the popliteal area (Figure 3), During hospitalization after total knee arthroplasty, proper timing and systematic rehabilitation exercises will be needed for rapid recovery.





Figure1:Anklepumping



Figure2:KneeBending



Figure3:PatellarMobilization