Streckis, Vytautas, et al. 2007_Sports XL Abstract

Intensive And Conventional Rehab On Muscle Strength After ACL Surgery

Objective
The study compared the effects of intensive and conventional rehabilitation for muscle strength recovery after anterior cruciate ligament reconstruction surgery.

Results
The research found that subjects who received intensive rehabilitation with **electrostimulation** developed greater calf extensor moment strength than those who received conventional rehabilitation. With intensive rehabilitation, calf extensor muscles recovered faster than with conventional rehabilitation.

Participants and Researchers
The study included 40 patients with anterior cruciate ligament reconstruction surgery performed using the patient's own patellar ligament graft**.**

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Methods
The patients were divided into two groups: the first group consisted of physically active patients who underwent intensive rehabilitation (16 men and four women). The second group consisted of patients who rarely engaged in physical education and who underwent conventional rehabilitation (13 men and seven women).

Different rehabilitation programs (regular and intensive) were applied in both groups of subjects. They were started the next day after surgery. **Electrostimulation** procedures were applied only to the study group (Group 1), which was assigned to intensive rehabilitation. Pain and swelling cold procedures, for both groups, were used to reduce postoperative pain on the knee joint immediately after surgery and after physiotherapy procedures, 15–20 minutes two to three times a day.

The **electrostimulation**, which lasted for ten days, was performed using the **NeuroTrac Sports XL** device (Verity Medical). During the procedure, electrodes were attached to the ends of the quadriceps muscle (at the beginning and end), and were arranged perpendicular to the muscle fibers.

The full abstract can be found at