NO
01
2013

Science & News

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Fukuda TY et al. Hip posteriolateral musculature strengthening in sedentary women: A randomized controlled clinical trial with 1-year follow-up. Journal of Orthopaedic and Sports Physical Therapy. 2012;42(10):823-30

Summary:

The results of the study conclude that four weeks of knee-strengthening exercises, supplemented by strengthening exercises for the hip abductors, lateral rotators, and extensors, was more effective in improving function and reducing pain over a 1-year period than knee strengthening alone in sedentary women with PFPS.

Abstract:

STUDY DESIGN: Randomized controlled trial. TTOBJECTIVES: To determine if adding hip strengthening exercises to a conventional knee exercise program produces better long-term out-comes than conventional knee exercises alone in women with patellofemoral pain syndrome (PFPS). BACKGROUND: Recent studies have shown that a hip-strengthening program reduces pain and improves function in individuals with PFPS. However, there are no clinical trials evaluating long-term outcomes of this type of program compared to conventional knee-strengthening and -stretching exercises. METHODS: Fifty-four sedentary women between 20 and 40 years of age, with a diagnosis of unilateral PFPS, were randomly assigned knee exercise (KE) or knee and hip exercise (KHE). The women in the KE group (n = 26; mean age, 23 years) performed a 4-week conventional knee-stretching and -strengthening program. The women in the KHE group (n = 28; mean age, 22 years) performed the same exercises as those in the KE group, as well as strengthening exercises for the hip abductors, lateral rotators, and exten-sors. An 11-point numeric pain rating scale, the Lower Extremity Functional Scale, the Anterior Knee Pain Scale, and a single-hop test were used as outcome measures at baseline (pretreatment) and 3, 6, and 12 months post treatment. RESULTS: At baseline, demographic, pain, and functional assessment data were similar between groups. Those in the KHE group had a higher level of function and less pain at 3, 6, and 12 months compared to baseline (P<.05). In contrast, the KE group had reduced pain only at the 3- and 6-month follow-ups (P<.05), without any changes in Lower Extremity Functional Scale, Anterior Knee Pain Scale, or hop testing (P>.05) through the course of the study. Compared to the KE group, the KHE group had less pain and better function at 3, 6, and 12 months posttreatment (P<.05). For the Lower Extremity Functional Scale, the between group difference in change scores from baseline at 3, 6, and 12 months posttreatment favored the KHE group by 22.0, 22.0, and 20.8 points, respectively. CONCLUSION: Knee-stretching and -strengthening exercises supplemented by hip posterolater-al musculature–strengthening exercises were more effective than knee exercises alone in improving long-term function and reducing pain in sedentary women with PFPS.

Struyf F et al. Scapular-forced treatment in patients with shoulder impingement syndrome: a randomized clinical trial. Clinical Rheumatol 2012

Summary:

The article suggest that a rehabilitation program that included motor control exercises, scapular mobilizations, and stretching is effective for reducing pain and diability for patients with shoulder impingment syndrome

Abstract:

The purpose of this clinical trial is to compare the effectiveness of a scapular-focused treatment with a control therapy in patients with shoulder impingement syndrome.

Therefore, a randomized clinical trial with a blinded assessor was used in 22 patients with shoulder impingement syndrome. The primary outcome measures included selfreported shoulder disability and pain. Next, patients were evaluated regarding scapular positioning and shoulder muscle strength. The scapular-focused treatment included stretching and scapular motor control training. The control

therapy included stretching, muscle friction, and eccentric rotator cuff training. Main outcome measures were the shoulder disability questionnaire, diagnostic tests for shoulder

impingement syndrome, clinical tests for scapular positioning, shoulder pain (visual analog scale; VAS), and muscle strength. A large clinically important treatment effect in favor of scapular motor control training was found in self-reported disability (Cohen's d00.93, p00.025), and a moderate to large clinically important improvement in pain during the Neer test, Hawkins test, and empty can test (Cohen's d 0.76, 1.04, and 0.92, respectively). In addition, the experimental group demonstrated a moderate (Cohen's d00.67) improvement in self-experienced pain at rest (VAS), whereas the control group did not change. The effects were maintained at three months follow-up.

Beer A et al. Can a functional postural exercise improve performance in cranio-cervical flexion test ?- A preliminary study. Manual Therapy 2012;17: 219-24

Summary:

The study determined that training with postural exercise consisting of assumption of neutral lumbo-pelvic and spinal posture with added neck lengthening manoeuvre led to an improved pattern of cervical flexor muscle activity in the CCFT.

Abstract:

Deep cervical flexor (DCF) muscle impairment is common in patients with neck pain. Retraining function is often commenced with a motor relearning approach, requiring the patient to practice and hold a cranio-cervical flexion position in supine lying. Motor relearning requires multiple repetitions which is difficult to achieve if only exercising in supine. This preliminary study investigated the effects of training the DCF with a functional exercise: assumption of an upright lumbo-pelvic and spinal postural position, adding a neck lengthening manoeuvre. The exercise effect was evaluated by changes in sternocleidomastoid (SCM) muscle activity in the cranio-cervical flexion test (CCFT). Twenty subjects with neck pain were randomly assigned to an exercise or control group. The exercise group trained for two weeks. Pre and post-intervention, electromyographic (EMG) signals were recorded from the SCM muscles during the five stages of the CCFT. Results indicated that the exercise improved performance. SCM EMG signal amplitudes decreased across all CCFT stages, albeit significant only at the first and third stages of the test; 22 mmHg (p ¼ 0.043) and 26 mmHg (p ¼ 0.003). No differences were evident in the control group (all p > 0.05). There was no difference between groups for pain and disability measures. This initial study indicates that a postural exercise, convenient to perform during the working day, improves the pattern of SCM muscle activity in the CCFT. Whilst further research is necessary, these observations suggest the worth of such an exercise to augment other training in the rehabilitation of patients with neck pain.

Worsley P et al. Motor control retraining exercises for shoulder impingement: effects on function, muscle activation, and biomechanics in young adults. J Shoulder Elbow Surgl 2012: 1-9

Summary:

The study shows that a 10 week motor control exercise intervention can improve function and pain in young adults with shoulder impingement signs

Abstract:

Objective: Evidence for effective management of shoulder impingement is limited. The present study aimed to quantify the clinical, neurophysiological, and biomechanical effects of a scapular motor control retraining for young individuals with shoulder impingement signs.

Method: Sixteen adults with shoulder impingement signs (mean age 22 1.6 years) underwent the intervention and 16 healthy participants (24.8 3.1years) provided reference data. Shoulder function and pain were assessed using the Shoulder Pain and Disability Index (SPADI) and other questionnaires. Electromyography (EMG) and 3-dimensional motion analysis was used to record muscle activation and kinematic data during arm elevation to 90 and lowering in 3 planes. Patients were assessed pre and post a 10-week motor control based intervention, utilizing scapular orientation retraining. Results: Pre-intervention, patients reported pain and reduced function compared to the healthy participants (SPADI in patients 20 9.2; healthy 0 0). Post-intervention, the SPADI scores reduced significantly (P < .001) by a mean of 10 points (4). EMG showed delayed onset and early termination of serratus anterior and lower trapezius muscle activity pre-intervention, which improved significantly post-intervention (P < .05). Pre-intervention, patients exhibited on average 4.6-7.4 less posterior tilt, which was significantly lower in 2 arm elevation planes (P < .05) than healthy participants. Postintervention, upward rotation and posterior tilt increased significantly (P <.05) during 2 arm movements, approaching the healthy values. Conclusion: A 10-week motor control intervention for shoulder impingement increased function and reduced pain. Recovery mechanisms were indicated by changes in muscle recruitment and scapular kinematics. The efficacy of the intervention requires further examined in a randomized control trial.

"You are never stronger than your weakest link"

In the latest edition of the Norwegian magazine Skisport, Henrik Pay explains how skiers can exercise to avoid injuries. For several years, Redcord Clinic Lysaker has specialized on Neurac suspension treatment together with professional cross-country skiers. Unfortunately, the health professionals see too many mistakes when it comes to strength training for skiers.

"Strength training should not only be done in batches in a given period, but it must be maintained throughout the season. It is also important to focus on quality rather than quantity - that the exercises are performed correctly, not necessarily with high loads. Which exercises are the best for skiers, is also individuall and varies from person to person"

15th annual J-Redcord Conference!

J-Redcord association arranged the 15th Annual J-Redcord Conference in Tokyo on January 27th 2013.
With a large number of interesting lectures and presentations of studies / clinical trials, the participants had an educational and interesting day.
Redcord AS would like to congratulate our Japanese colleagues on a great arrangement!

Redcord at FIBO in Cologne!

Redcord will be present at FIBO, the leading international trade show for fitness wellness and health, in Cologne, April 11.-14. 2013.
We are focusing on Redcord Medical, Active and Sport this year, and we will present the Redcord AXIS for the first time!

The Redcord team from Germany and Norway will be present at booth 9/ B11-B12. Come visit us!

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