P272-e
Rotator cuff strength weakness in recurrent anterior shoulder instability physiopathology
P. Edouard a, L. Beguin b, P. Calmes c
a CHU de Saint-Etienne, Saint-Étienne Cedex 2, France
b Orthéo, Saint-Étienne, France

doi:10.1016/j.rehab.2014.03.1018

Objective.– To analyze the association between isokinetic internal rotator (IR) and external rotator (ER) muscle strength and glenohumeral joint instability in patients with non-operated recurrent anterior instability.

Methods.– Thirty-seven patients and 11 healthy nonathletic subjects participated in this case-control study. Isokinetic shoulder IR and ER strength was evaluated with a Con-Trex® dynamometer, in the seated position with 45° of shoulder abduction in the scapular plane, at 180°.s−1, 120°.s−1 and 60°.s−1 in concentric mode for both sides.

Results.– The association between shoulder instability and IR and ER strength was associated with side-to-side differences (P<0.05). By comparisons to a control group, strength values were lower on the pathological shoulder side than on the healthy homolateral shoulder side of controls at 180°.s−1 and 120°.s−1 (P<0.05). The side-to-side differences were increased when the nondominant side was involved and were decreased when dominant side was involved. We found no association between glenohumeral joint instability and IR/ER ratio.

Conclusions.– IR and ER strength weakness was associated with recurrent anterior instability and side-to-side differences depended on the dominance of the side involved.

http://dx.doi.org/10.1016/j.rehab.2014.03.1019

P273-e
Surgical Achilles tendon tears using platelet-rich fibrin matrices and conventional methods: Kinetics and kinematics evaluation
F. Alviti a, M. Mangone a, M. Vanadia a, C. Fiorentino a, V. Santilli a
Policlinico Umberto I, Roma, Italy
*aCorresponding author.

Keywords: Gait analysis; Stiffness; Physical activity; Platelets; Growth factors; Surgical repair; Achilles tendon

Background.– The relationship between surgical technique and ankle biomechanical properties following surgery for acute rupture of the Achilles tendon has not yet been fully investigated.

Objective.– To evaluate the clinical outcomes in patients with platelet-rich matrices and conventional techniques during Achilles tendon surgery.

Methods.– Twelve patients who underwent surgical repair of a complete Achilles tendon (AT) rupture were divided into two groups, conventional open repair of the Achilles tendon group (noPrP) and platelet-rich fibrin matrices group (PrP). VISA-A, questionnaire was used. Calf circumference was measured. Gait analysis (ELITE system BTS) and ultrasound evaluation (GE Medical Systems) were performed and AT diameter was measured (ATTD). The follow-up was at 6 months.

Results.– Differences were found between ATTDnoPrP and ATTDPrP (P=0.029) and in the stiffness in the hopping trial (P=0.001).

Conclusion.– Based on this study, we suggest that PrP surgery represents potential for enhanced healing and functional recovery.

Further reading
http://dx.doi.org/10.1016/j.rehab.2014.03.1020

P274-e
The effect of rehabilitation on range of motion and muscle strength in patients after surgical reconstruction of the anterior cruciate ligament
S. Kozomara
Institute Niska Banja, Nis

Keywords: Anterior cruciate ligament; Ligamentoplastika rehabilitation

Background.– In recent years, an increasing number and severity of knee ligament injuries, and most of the anterior cruciate ligament (ACL). Treatment is conservative and surgical.

Objective.– The aim of the study was to determine the effect of rehabilitation treatment to increase the range of motion in the operated knee and rough driving force (GMS)clinical characteristics.

Methods.– The study included 56 patients, mean age 27 ± 5.5 years-old, male. Diagnosis: NMR knee. Patients were treated arthroskopijskom ACL reconstruction. All subjects started with the rehabilitation treatment after 4 weeks of surgical intervention. Measuring the range of motion in the operated knee and GMS upper knee musculature was performed before inclusion in the rehabilitation treatment, after 3 weeks and after 6 weeks of rehabilitation treatment.

Results.– After 3 weeks of intensive rehabilitation treatment, increasing range of motion in the operated knee 45 ± 2.5 degrees (P<0.05), GMS clinical characteristics of grade 3 ± 0.5 MMT-in (P<0.05) after 6 weeks of range of motion of 95 ± 3.5 degrees (P<0.01), GMS clinical characteristics for a 4 ± 0.5 MMT-in (P<0.05).

Conclusion.– Rehabilitation treatment has a beneficial effect on functional recovery.

http://dx.doi.org/10.1016/j.rehab.2014.03.1021

P275-e
Association of peroneus longus tear and common fibular nerve palsy in a soccer player
A. Jellad a,b, A. Zrigue a,b, W. Mnari c, W. Langar a, M. Gollì a,b, Z. Ben Salah Frith a
a CHU Fattouma Bourguiba, Monastir, Tunisia
b CHU Tahir Sfar, Mahdia, Tunisia
*aCorresponding author.

Keywords: Peroneus longus; Peroneal nerve; Injury; Sports; Rehabilitation

Background.– Peroneus longus (PL) tear concomitant to common peroneal nerve (CPN) palsy is very rare. We report here an association of PL injury with a CPN paralysis in a soccer player.

Observation.– A 35-years-old soccer player presented with a 5-day history of pain of the left lower leg with difficulty in walking following a direct then an indirect (forcible inversion of the left ankle) trauma. The examination revealed ecchymosis and oedema, equinus of the ankle, pain and tenderness on palpation of the lateral muscular lodge, paresis of dorsal flexion and evasion, decrease of sensory modalities at fibular nerve territory and a tinel sign on the level of...