P250-e
One-year follow-up of platelet-rich plasma to treat chronic upper patellar tendinopathies
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Keywords: Platelet-rich plasma; Jumper’s knee; Tendinopathy; One-year follow-up

Background.– Infiltration of PRP may be used as a recent therapeutic option for chronic tendinopathies.

Objectives.– The aim of the current study is to evaluate the clinic and the return to sports activities in patients with chronic upper patellar tendinopathies 1 year after 1 infiltration of PRP.

Methods.– The follow-up of 20 subjects who benefited from 1 infiltration of PRP was made before infiltration, after 3 months and 1 year after infiltration; it was made as follow: VAS, IKDC and VISA-P scores. Moreover, they had to answer an information questionnaire concerning their life and sports activities.

Results.– Seventy percent of patients reported a favourable evolution with decrease of pain, 10% did never report any improvement and 20% were treated surgically. Eighty-seven percents returned to sports activities without any pain, and 50% of them recovered the same sport level. VAS has significantly \( P < 0.0001 \) dropped, IKDC significantly improved \( P = 0.0007 \) and VISA-P also significantly increased \( P = 0.009 \) over the follow-up of 1 year.

Discussion.– This study confirms that a local injection of PRP coupled with a program of eccentric rehabilitation through a chronic Jumper’s knee, improves painful symptoms and the functionality of the subjects’ knee up to a follow-up of 1 year.

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P251-e
Osgood-Schlatter and patellar instability: Fortuitous association or complication?
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Keywords: Osgood-Schlatter; Patellar instability

Introduction.– Osgood-Schlatter disease is an anterior tibial osteochondrosis, benign pathology, common in sportive boys. Outcome without sequelae is the rule but it can be made to the functional impairment.

Observation.– Patient 21-years-old, athletic, with pain at the anterolateral aspect of the left knee transferor at rest, progressing to the onset of pain down the stairs and in the transition from prolonged sitting to standing and causing the patient to stop all sports. The clinical examination showed a positive Zohlen painful with palpation of a projection at the anterior side of the knee. Radiographs objectified patella alata, irregularity of the posterior surface of the patella, and the presence of exostosis at the tibial. Outcome was marked by the resumption of sporting activity after medical and physical treatment well conducted.

Discussion.– Some authors report that the finding of a ball too high seems to be related to the onset of Osgood-Schlatter, others consider patellar instability a complication of the disease.

Conclusion.– Osgood-Schlatter disease is a benign whose support differs depending on the importance of clinical and radiological signs.

Further reading
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P252-e
Rehabilitation to effort of obese: Contribution of isokinetic muscle strengthening
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Keywords: Isokinetic; Obese; Muscle strengthening; Rehabilitation to effort

Objective.– Assess the contribution of isokinetic muscle strengthening in obese adults.

Methods.– A prospective study of 40 obese patients: One group (G1) who underwent a re-entrainment on a treadmill associated with isokinetic muscle strengthening exercises of the spine and knees and a group (G2) who received only an entrainment on a treadmill.

Results.– After the re-entrainment protocol, there was an improvement in all anthropometric parameters evaluated (weight, body mass index [BMI], fat mass [FM] and lean body mass [MM]) as well as all cardiovascular parameters (heart rate at rest and during exercise, systolic and diastolic blood pressure at rest and effort, maximum workload and metabolic equivalent). This improvement was significantly greater in the G1 than in the G2. There was also an improvement in the parameters of the isokinetic muscle strength in both groups namely the peak torque of the flexors and extensors of the spine and knees. It was more significant in the G1.

Conclusion.– Our study confirmed the beneficial effect of the combination of isokinetic strengthening and aerobic treadmill work in obese adults.
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P253-e
Interest of an intensive isokinetic rehabilitation treatment in the case of a persistent functional deficit 4 years after a shoulder stabilization surgery
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Background.– Shoulder stabilization surgery associated with a specific rehabilitation program allows most of the time the recovery of a mobile and painless joint. But, return to same level sport practice concerning, depending on the studies, failure rates between 10% up to 20% were reported, due to pain or joint/muscular limitations.

Observation.– We present the case of a 31-year-old soldier, treated by an anatomical reconstruction of the rotator cuff and a coracoid transfer for an anterior shoulder dislocation and a rotator cuff tear that occurred during a parachute jump incident. Four years after the surgery, persistence of joint limitations and an internal rotators muscular strength deficit (35% low speed concentric and 50% eccentric) and external rotators (15% low speed concentric, 30% high speed and 13% eccentric). Intensive isokinetic rehabilitation program in our technical platform resulted in a near-total muscular and joint recover.

Discussion.– This case report shows the interest of isokinetic associated with a classic shoulder rehabilitation program in order to finalise the rehabilitation and to achieve the muscular and joint objectives.

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P254-e
Example of the interest in a diagnostic approach of the use of isokinetics
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Reliability of isokinetic measurements of the hip muscles strength

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Keywords: Reliability; Measurement; Hip; Muscles; Strength

Objective.– To evaluate the reliability of the isokinetic measurement of the hip muscles strength in the 3 cardinal planes, with different positions (sitting, lying and standing), a large spectrum of velocities and during concentric and eccentric movement.

Methods.– Sixty healthy subjects, aged 18 to 35 years, dispatched within 3 groups of 20 subjects (lying flexion-extension/adduction-adduction; standing flexion-extension/adduction-adduction; sitting medial-lateral rotation) have been evaluated twice at 1 week interval. The tested velocities on a Biodex S4 Pro dynamometer were 30, 60, 90, 120, 180 and 240 °/s for concentric mode, 30 and 60 °/s for eccentric contraction.

Results.– The overall reliability, evaluated with the Intraclass Coefficient Correlation (ICC), has been estimated excellent for lying flexion-extension and abduction-adduction, good to excellent for standing position and rotation movements. However, the reliability varied depending on the velocities and the concentric or eccentric mode.

Discussion.– The assessment of the reliability of the isokinetic measurement of the hip muscles strength with different conditions (position, velocity, concentric or eccentric contraction) enables us to choose for each protocol the conditions allowing the best reliability.

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Functional improvement after arthroscopic meniscectomy in patients with degenerative versus traumatic meniscal lesions

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Keywords: Degenerative meniscal lesions; Traumatic meniscal lesions; Meniscectomy

Objective.– The aim of the study was to compare the functional improvements after rehabilitation programme on two groups of patients with degenerative meniscal lesions and traumatic meniscal lesions after arthroscopy.

Methods.– We studied two groups of patients, each group with 30 patients with similar social and demographic characteristics. The first group consisted of patients with traumatic meniscal lesions and the other one with degenerative meniscal lesions. After arthroscopic meniscectomy the patients were included in an individualized rehabilitation programme in order to improve their functional capacity by improving knee mobility and muscular force. We applied Tagner-Lysholm knee scale before and after the rehabilitation programme on each patient.

Results.– After rehabilitation programme each patient achieved a higher score on Tagner-Lysholm scale but the group of patients with degenerative meniscal lesions had less improvements compared with the other group especially in limp, instability, swelling, stair-climbing and squatting items.

Discussion.– The functional improvements of patients from second group are less then those from the first group, differences between the two groups are probably due to additional lesions of cartilage and other soft tissue which are present in degenerative meniscal lesions group.

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Isokinetic rehabilitation: Experience of physical medicine and rehabilitation university hospital Casablanca

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Keywords: Rehabilitation; Isokinetic

Background.– The isokinetic provides a reference method for evaluation of muscle strength and a valuable aid to rehabilitation.

Objective.– To report the experience of service MPR Casablanca on isokinetic rehabilitation.

Patients and methods.– This is a retrospective study over 6 months, about 13 patients for 17 joints reeducated by isokinetic.