Methods

Purpose

The mechanical stability of the knee and the level of muscle recovery, in addition to delay healing of about six months, are among the main criteria for return to sport after ACL reconstruction. The isokinetic dynamometer is the best tool for assessing muscle strength but its major drawback is its particularly high cost. Some authors have sought to correlate some functional tests and isokinetic assessing. Among these functional tests, one of the most interesting seems to be the one leg hop test.

Conclusion

Use of a validated methodology permitted French validation of the FFI, a clinical research and everyday practice usefull questionnaire.

References


http://dx.doi.org/10.1016/j.rehab.2012.07.187

PO03-e

Interest of the monopodal jump as an indirect means of assessing muscle recovery distance of an ACL reconstruction

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Keywords: Isokinetic assessing; Ligamentoplasty; Anterior cruciate ligament; ACL reconstruction; One leg hop test

The mechanical stability of the knee and the level of muscle recovery, in addition to delay healing of about six months, are among the main criteria for return to sport after ACL reconstruction. The isokinetic dynamometer is the best tool for assessing muscle strength but its major drawback is its particularly high cost. Some authors have sought to correlate some functional tests and isokinetic assessing. Among these functional tests, one of the most interesting seems to be the one leg hop test.

Objective.– Determined the level of correlation between isokinetic testing and the one leg hop test on the one hand and muscle atrophy assessed clinically from the perimeter of the thigh, on the other hand, a common practice but whose practical interest seems limited.

Method.– This prospective study covers a population of 14 athletes competing at regional level and a minimum of professional sports, at 6 months ± 1.6 months of ACL reconstruction. The isokinetic test was performed at 90 and 240°/sec concentric and 90°/sec eccentric for the quadriceps and hamstrings. The one leg hop test and muscle atrophy were expressed as an index relative to the healthy side (hop index and atrophy index).

Results.– There is a significant correlation between the one leg hop test and the time of concentric quadriceps strength in 90°/sec on the one hand (r = 0.565 and P = 0.035) and 240°/sec on the other (r = 0.719, P = 0.004). No correlation was found between peak eccentric force at 90°/sec and the hop index. A weak correlation was found between the moment of force concentric hamstrings and the hop index but not significantly. No correlation was found between atrophy index and isokinetic testing.

Discussion.– The one leg hop test is less efficient than the isokinetic test, however is a useful alternative in clinical practice to assess the level of muscle recovery and could be one of the criteria of return to sport.

http://dx.doi.org/10.1016/j.rehab.2012.07.189

PO04-e

Brachial plexus injury after clavicle fracture: a complication not to be unrecognised. About one case

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Introduction.– The commonly accepted treatment of clavicle’s fracture is orthopedic. Surgical treatment is reserved for open clavicle’s fractures and fractures partnering with neurovascular injury. But most often, the neurological diagnosed acute are related to mechanisms of brachial plexus traction not directly related to the clavicular fracture. At distances, complications are mainly represented by the nonunion (1%), and hypotrophic bone wedge. Neurological complications secondary are less well known.

Observation.– A young man, whose age is 16, suffered a fractured right clavicle after a crash with moto. It is conservatively treated, immobilized for two months by a scarf. The evolution is marked by the installation of a pain syndrome of the cervical spine and right upper limb with decreased sensation and strength in the
Osteoid osteoma: CT-guided percutaneous radiofrequency thermal ablation; a case report

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Keywords: Osteoid osteoma; Talus; Treatment; CT-guided percutaneous radiofrequency

Introduction.— Osteoid osteoma treatment was based for a long time upon surgical resection, with a lot of failure and complications.

Observation.— A 16-year-old soccer player presented at 3 months from so called ankle sprain, pain while running, direction’s change and while ball striking. Talus palpation is painful. X-ray is normal, RMI shows osteoid osteoma. Aspirin has no efficacy. CT-guided percutaneous radiofrequency with biopsy is performed in outpatient care facility.

Full weight bearing is possible within 24 hours. Pain disappears in 48 hours. The patient returns to sport within 8 days (soccer and alpine skiing). Twelve months afterwards the patient shows neither recurrence nor residual pain while returning to sport at the same level.

Discussion.— Patients experience symptoms that may delay the diagnosis and the treatment which is detrimental for an athlete. Percutaneous radiofrequency thermal ablation localizes the lesion and produces local tissue destruction by converting radiofrequency into heat. A non-exhaustive review of the literature shows that this is a quick and low iatrogenic.

Conclusion.— Percutaneous radiofrequency thermal ablation provides reliable, excellent pain relief and early return to function with minimal morbidity as compared with traditional open procedures. More invasive and expensive treatments become difficult to justify.

Further reading


http://dx.doi.org/10.1016/j.rehab.2012.07.191

A rare cause of carpal tunnel syndrome: Intramuscular haemangioma of the forearm about one case

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Keywords: Carpal tunnel syndrome; Haemangioma intramuscular of the forearm

Introduction.— The carpal tunnel syndrome includes all signs secondary to compression or irritation of the median nerve in a tunnel inextensible. The idiopathic etiology remains the most common and CTS revealed the existence of an intramuscular haemangioma of the forearm is exceptional. The purpose of this observation is to remind the possibility of extracanal etiologies, including tumor, in the genesis of a CTS.

Observation.— This is a worker of 34 years, sent to the service for rehabilitation after surgical resection of a tumor of the forearm responsible for typical neurolysis of the median nerve and wrist immobilization orthotic for 4 weeks followed by reeducation and an analgesic therapy was allowed improvement of symptoms and functional impairment.

Discussion.— Kienbock’s disease, has been known since 1843. The relative rarity of this pathology, the absence of internationally agreed upon classification and the many therapeutic methods, make it difficult to care for this disease. It often involves a young adult who has wrist pain associated or not with a limited range of motion of the wrist and above the loss of clamping force with pain around the lunatum. Plain radiographs of the wrist may be normal at the beginning stage. In cases of diagnostic doubt, we must practice an MRI or scanner.

The choice of the functional treatment or surgery depends on several factors including the patient’s age and his profession, the side attained, the stage of disease, the existence of unequal length of the two bones in the arm or wrist arthrosis.

http://dx.doi.org/10.1016/j.rehab.2012.07.192