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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 hamstring. 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

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Brachial plexus injury after clavicle fracture: a complication not to be unrecognized. 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 hypertrophic 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