A functional ankle instability after a ruptured popliteal cyst. A case report

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Keywords: Chronic ankle instability; Peroneal nerve; Popliteal cyst

Background. This study describes a case report of a ruptured popliteal cyst in a sportive man complaining of a functional ankle instability for few months. In our case, the first consultation allowed to diagnose a possible neurologic disease. We present an unusual case report highlighting this assumption. A 37-years-old sportive man has been complaining of functional ankle instability for few months. In our case, this consultation allowed to diagnose a possible neurologic disease. We present an unusual case report highlighting this assumption. A 37-years-old sportive man has been complaining of functional ankle instability for few months. A ruptured popliteal cyst can be identified in elite rugby players not only using fitness tests, but also using an objective and simple test body composition. These results show how important is to monitor the level of body fat, lean muscle mass and muscular development in order to modify the food-habits, individualized trainings and reduce the number of injuries.

Results. We have analyzed the weight of lean muscle tissue in each limb, the body’s water content, percentage of body fat, bone mineral and protein content. We observed that the number of injuries is directly correlated with high levels of body fat percentage and low lean muscle mass.

Discussion. Risk of injury can be identified in elite rugby players not only using fitness tests, but also using an objective and simple test body composition. These results show how important is to monitor the level of body fat, lean muscle mass and muscular development in order to modify the food-habits, individualized trainings and reduce the number of injuries.

Conclusion. This preliminary study did not evidence difference in stabilometric bipodal data eyes open at 6 months post-surgery, but a persistent strength deficit on the ankle periarticular muscles, mainly on the eccentric mode. The inclusion of a large number of patients may allow confirming these trends, and providing a basis to personalize rehabilitation protocols and choose the most relevant..

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New field of application of radial shock wave therapy - osteoarthritis

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Keywords: Osteoarthritis; Radial shock wave therapy

ESWT is a treatment of choice in patients with chronic tendinopathies. There is good level of evidence about its effectiveness in the treatment of calcifying tendinopathy of the shoulder and Achilles tendinopathy, and moderate – in epicondylitis and plantar fasciitis, that are discussed by the author, who shares also own experience in its application in chronic musculoskeletal disorders. Experimental and clinical studies in animals have found good results after the application of ESWT in osteoarthritis.

Objective. The aim of our study was to investigate the effect of radial shock wave therapy (RSWT) in patients with knee osteoarthritis.

Methods. The study included 107 cases with knee OA, randomized into three groups: study group (with 3 sessions of RSWT), placebo group (sham SWT) and control group (with standard PRM program: exercise, interferential currents and pulsed magnetic field). Visual analogue scale and Knee injury and osteoarthritis outcome score (KOOS) were used for assessment before treatment, after it, 1 month (mo) and 3 mo later.

Results. We found statistically significant improvement in the mean values of pain (VAS) and KOOS in the study group (from 51.3 ± 6.2 to 62.6 ± 3.3 after treatment; 71.2 ±3.3 at 1 mo; 69 ± 3.6 at 3 mo) and control group (from 59.2 ± 2.3 to 63.4 ± 2.2; 65.1 ± 2.1 at 1 mo; 64.7 ± 2.2 at 3 mo). The results in the study group were significantly better regarding the improvement in pain ascending and descending stairs and in KOOS (40.6% in study vs. 10.2% in control group at 3 mo). No significant difference in pain, functional outcomes and KOOS was found after sham application.

Conclusion. Osteoarthritis is a new field of application of RSWT that give promising results.

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Interest on an isokinetic evaluation regarding prevention of lower extremities strains for professional football players

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Routine follow-up protocol evaluation after ACL reconstruction including the 3D gait kinematic and postural control analysis
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Objectives. – We assessed the interest in postural control and gait kinematic parameters evaluation after such a surgery.
Methods. – A prospective preliminary matched study was carried out to analyse the anterior knee laxity (KNEELAX 3TM), quadriceps and hamstrings strength (BIODEX SYSTEM 3TM), postural control (SATELTM) and gait kinematic parameters (3D analysis, KNEE-KGTM) in 18 patients after hamstring tendon ACL reconstruction.
Results. – In the ACL reconstructed group, the quadriceps and hamstrings strength was significantly decreased at low speed (P < 0.01), a postural alteration was found in some stances including the non-operated side and the gait kinematic parameters were altered in sagittal (non-operated knees) and frontal planes (operated knees).
Discussion. – The knee laxity, muscular strength and postural control evaluation appears interesting before and after 3, 6 and 12 months from ACL reconstruction. The gait kinematic assessment using the KNEE-KGTM appears not practical enough for routine use and the analysis of the results on clinical practice was tricky.

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Interest of botulinum toxin in tendinopathies: Review of literature
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Keywords: Tendinopathy; Botulinum toxin; Review of literature
Botulinum toxin is traditionally used for the treatment of focal spasticity or dystonia. Moré et al are the first to use botulinum toxin in musculoskeletal pathology for treating lateral epicondylitis in 1997. In the treatment of this tendinopathy, the muscle relaxant properties of botulinum toxin are used to rest the tendon and allow healing of entheses. Botulinum toxin is particularly useful in enthesisopathy to reduce traction of the enthesis on the bone. We now know that the toxin has also analgesic effect by inhibiting release of neurotransmitters such as substance P or calcitonin gene related peptide. Other publications have confirmed the interest of botulinum toxin in this indication. Meta-analyses support the use of botulinum toxin in lateral epicondylitis. These two combined effects have extended the use of botulinum toxin in several pathologies such as plantar fasciitis or patellar tendinopathy. The relaxant effect of botulinum toxin, although transient, can be disabling by the paralysis of the injected muscle and limit its use only to certain tendinopathies. To conclude, botulinum toxin can be a useful treatment option for certain tendinopathies, if we target the muscle to inject, we predetermine the dose and we use a specific method of injection.

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Intrinsic risk factors of patellar tendinopathy among volleyball players – a prospective study about 29 cases
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Keywords: Intrinsic risk factors; Patellar tendinopathy; Prevention; Volleyball
Background. – Patellar tendinopathy (PT) is a common and disabling disease among athletes, especially in sports with jumps such as volleyball.
Objective. – The aim of this study was to determine intrinsic risk factors of PT among volleyball players.
Methods. – This prospective study was conducted from August 2012 to April 2013. It included a clinical examination, ultrasound, muscle isokinetic assessment and tests of jumps beginning of the season and then only a clinical examination at the end of the season. Subjects who developed PT were compared to healthy subjects.
Results. – PT group athletes (6) were older (17.2 ± 0.4 years vs. 16.2 ± 0.9 years, P = 0.02) and had a stiff of hamstrings higher (popliteal angle of 24° ± 12 vs. 14° ± 9°, P = 0.04) than healthy subjects (16). They had an eccentric quadriceps peak torque at slow speed (30°/s) lower than healthy subjects (2.7 ± 0.2 Nm/kg vs. 3.2 ± 0.5 Nm/kg, P = 0.05).
Conclusion. – Age, stiffness of hamstrings and an eccentric strength deficit of quadriceps at slow speed would be intrinsic risk factors of PT among volleyball players.

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