An overlooked partial tear of rectus femoris muscle and the value of sonography

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Keywords: Quadriceps; Rectus femoris; Muscle; Tear; Ultrasound

Background.– The rectus femoris muscle is one of the four muscle bellies that compose the quadriceps muscle which is located in the anterior compartment of the thigh. Tear of this muscle is an uncommon but frequently overlooked injury.

Results.– We report a 32-year-old man who presented to our clinic with a mild pain in the right anterior thigh since 3 months. During a football match, after a jump he felt a sudden pain in the right inguinal area spreading to the anterior region of the thigh. On clinical examination, there was pain in the anterior aspect of the thigh during hip flexion. Ultrasound (US) examination revealed a fibrous hyperechoic area inside the right rectus femoris muscle, which is consistent with an old and healed partial tear.

Discussion.– Prompt diagnosis of muscle tears is essential for proper treatment. Delayed diagnosis and lack of adequate treatment will result with weakness of the extensor mechanism and joint instability. US is not only helpful for detecting the tears, it is also useful in the healing period as a follow-up tool with its ability of imaging old tears. US should be the first imaging technique for evaluating suspected tear of the quadriceps muscle.

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Long peroneal tendinopathy and sequelae of poliomyelitis: A case report

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Keywords: Musculoskeletal; Sonography; Tendinopathy; Empty groove

Background.– Spontaneous rupture of the long head of biceps tendon most frequently is associated to degenerative changes within the tendon and occurs with underlying rotator cuff tendinopathy.

Methods.– A 60-year-old man was seen due to his complaint of bilateral swelling for 6 months in the left arm and for 1 year in the right one. He had no pain, weakness or functional loss.

Results.– On physical examination, there was no abnormal finding except symmetric swelling in the middle of his arms. X-ray examination was consistent with bilateral shoulder osteoarthritis. Musculoskeletal ultrasound (US) was selected as a further imaging method. US revealed that the long head of the biceps tendon was not in its expected place bilaterally, which is called empty groove sign. Therefore, he was diagnosed as spontaneous bilateral bicipital tendon rupture.

Discussion.– Spontaneous bicipital tendon rupture is an uncommon condition, bilateral rupture – as in our case – is very rare and there are few reports using US as a diagnostic method. US is a convenient imaging tool for the diagnosis and follow-up of relevant patients. We suggest that US should take its place in every physician’s daily practice who is dealing with musculoskeletal disorders.

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Keywords: Diabetic neuropathy; Pain; Rehabilitation

Objective.— To determine the epidemiological features of patients with diabetic neuropathy seen in a rehabilitation environment.

Methods.— Retrospective study including patients who consulted the department of functional rehabilitation for a diabetic neuropathy between the year 2004 and 2013. The analysed features were epidemiological, clinical and evolutionary.

Results.— We have gathered 23 patients, 16 men and 7 women. The average age was 60 years ± 11.6 years. Patients were living with diabetes for an average age 11.5 years ± 5.9 years. Ten patients were diagnosed with motor deficiency, mostly localized in the lower limbs (26% of cases). Sensitivity was affected in 52.2% of cases. Fifty-six per cent of patients had neuropathic pain (average DN4 = 6.1/10). Pregabalin was prescribed in 30% of cases. Fifty-six per cent of the patients had a specific functional rehabilitation and in 30% of cases they were improved.

Discussion.— Apart from rare acute presentations, chronic form of diabetic neuropathy is the most common, integrating within the chronic sensorimotor polyneuropathy. It should be systematically sought by the examiner because patients do not speak spontaneously.

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P055-e

Ultrasound morphology of plantar fascia in patients with diabetes mellitus

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Keywords: Plantar fascia; Diabetes mellitus; Ultrasound

Background.— The prevalence of tendinopathies is increased in subjects with diabetes mellitus. However, there are few data about the structural abnormalities of plantar fascia in diabetic patients. The aim of the study was to assess the morphologic characteristics of the plantar fascia in subjects with diabetes mellitus patients.

Methods.— Twenty-seven patients with diabetes mellitus were included in this study. Ultrasound longitudinal and transverse scans were performed bilaterally along the full length of plantar fascia from the musculotendinous junction to the insertion. Degenerative features (abnormal fibrillar pattern, hypo-hyperechoic areas), signs of enthesopathy (bony erosion, enthesophytes, and bursitis), and plantar fascia thickness were recorded.

Results.— Seventeen feet (62.9%) P < 0.05 showed a increase in plantar fascia thickness. Sonographic abnormalities degenerative features (22/27 [81.4%] P < 0.05) and signs of enthesopathy (15/27 [55.5%] P < 0.05) were significantly increased.

Discussion.— Diabetes may predispose to plantar fasciitis and increase in plantar fascia thickness. This study shows that plantar fascia thickness is increased in the patients of type II diabetes. Further longitudinal studies are needed to evaluate whether these early changes can overload the metatarsal heads and increase the stress transmitted to plantar soft tissues, thus representing an additional risk factor for foot ulcer development.

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P056-e

Mononeuropathy caused by walking aid device: A case report

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Keywords: Mononeuropathy; Walking aid; Cubital nerve

Background.— Mononeuropathies can have different aetiologies, including mechanical causes. The correct diagnosis and timely management may be vital for better prognosis.

Methods.— A 60-year-old female, suffered an incomplete paraplegia due to dorsal meningioma, with deficit aggravation after surgery (AIS D single neurological level D9). She was admitted as an inpatient to our hospital, for functional rehabilitation. The patient was able to walk with a walking frame for short distances and referred occasional right thumb and index finger grasp weakness. The patient started an intensive rehabilitation program and the complaints aggravated, including weakness in right hand, especially finger addition and abduction, and amyotrophy of dorsal and palmar interosseus muscles. EMG findings suggested a moderate severity mononeuropathy in cubital nerve wrist trajectory. Afterwards, the patient was able to start using a tripod walking stick on the left. At discharge, she presented significant less right hand deficits.

Discussion.— Walking aids are commonly used for the benefit of rehabilitation. Considering the timeline and the absence of other pathologies that would explain the motor changes in the right hand, we admit that the cause of the deficits was the mechanical trauma caused by intensive walking frame usage.

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P057-e

Dependency and autonomy of patients with poliomyelitis sequelae

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Keywords: Poliomyelitis; Sequelae-dependancy; Autonomy

Objective.— The main objective of this study was to evaluate autonomy and dependency of patients with poliomyelitis sequelae.

Methods.— This is a cross-sectional study performed on 15 patients with poliomyelitis sequelae. We assessed their autonomy with the Lawton scale of Instrumental Activities of Daily Living (IADL) and the Functional Independence Measure of (MIF). In a second step, we sought a possible correlation between these scores and associated diseases, orthopedic equipment wearing and rehabilitation.

Results.— We collected 7 men and 8 women with average age of 36 years (29–50). Only 9 were wearing their orthopedic equipment. Ten had specific complications of the disease (cuff syndrome, back pain on scoliosis . . .). The IADL average was 5/6 with predominance of disabilities on transfers and shopping. The MIF average was 86/126 with a clear predominance of disabilities on locomotion, mobility and transfers. We noted a correlation of these scores with the studied parameters.

Discussion.— Polio sequelae significantly affect the patient’s autonomy especially in the presence of associated pathologies. Rehabilitation and appropriate equipment are necessary to minimize the functional dependency and improve the autonomy of patients.

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P058-e

Aging with poliomyelitis

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Keywords: Poliomyelitis; Complications; Rehabilitation

Background.— The poliomyelitis sequelae, initially stabilized, are likely to change by aging. The aim objective of this study is to describe the develop-