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Mots clés : Poliomyélite ; Séquelles ; Devenir fonctionnel ; Rééducation
Objectif.– Déterminer les caractéristiques épidémiologiques des patients atteints de poliomyélite suivi en milieu de rééducation ambulatoire.
Patients et méthode.– Étude descriptive rétrospective effectuée sur 11 ans de 2002 à 2013, incluant les patients ayant des séquelles de poliomyélite qui ont consulté au service de rééducation fonctionnelle du CHU Fattouma Bourguiba de Monastir. Les variables analysées sont d'ordre épidémiologique, clinique et évolutif.
Résultats.– Vingt-deux patients (11 hommes et 11 femmes), avec une moyenne d'âge de 47 ans, 50 % avaient une monoplégie droite, 27,7 % une monoplégie gauche et 22,7 % une diplégie. La moyenne d'âge de l'atteinte polio était de quatre ans. Le motif de consultation était dans 86,4 % en rapport avec les séquelles de poliomyélite avec 40,9 % renouvellement de leur appareillage, 22,7 % troubles de la marche, 9,1 % inégalité de longueur d'un membre inférieur, 4,5 % scoliose, 4,5 % durillon plantaire et 9,1 % NCB. 27, 3 % avaient eu recours à un traitement chirurgical de leurs séquelles avec 9,1 % d'arthrodèse, 4,5 % de double arthrodèse et 4,5 % d'allongement d'un membre inférieur. Tous les cas ont été pris en MPR avec un programme adapté a leur motif de consultation, recours à un appareillage et aides techniques pour 95,5 % des cas : 40,9 % semelles, 27,7 % GAM, 18,8 % orthèse cruropedieuse, 18,8 % canne, 9,1 % attelle des releveurs des orteils, 4,5 % ceinture lombaire. Une amélioration clinique a été constatée pour 36,4 % des cas.
Discussion.– La dégradation tardive des patients aux antécédents de poliomyélite est souvent multifactorielle. Elle doit être prévenue par un suivi médical adapté, une information pertinente et des mesures adéquates afin de limiter les séquelles et les complications telles qu'un syndrome post poliomyélite.

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Posters
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Botulinum toxin to prevent foot varus deformity in Charcot-Marie-Tooth disease: Effects on gait parameters, a case report

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Keywords: Charcot-Marie-Tooth disease; Varus; Pes cavus; Botulinum toxin
Introduction.– Charcot-Marie-Tooth disease (CMTD) leads to progressive feet deformities due to the unbalance between agonists and antagonists muscles. These deformities have a major impact on standing posture and gait. Their prevention is a key goal for patients.
Case.– We present the case of an 11-year-old girl suffering from a type 2 CMTD, presenting on left side a static pes cavo varus during standing and a dynamic varus with forefoot adduction during gait. This deformity causes an early attrition of her orthopedic shoes, pain of the lateral side of the foot and discomfort in wearing nocturnal orthotics. Baropodometric assessment during gait (Zebris FDM, Zebris Inc.) confirmed a major lateral foot overload at the base of the 5th metatarsal. Clinical examination showed that the varus was partially reducible; the tibialis posterior muscle strength was normal whereas fibular muscles were very weak (2/5). We performed an intramuscular echo guided injection of 50 units of Botulinum toxin (Botox ®) in the left tibialis posterior muscle. After the injection (assessments were made after 15 days and 3 months), resistance to passive correction of the varus was clinically less important. The varus deformity was slightly improved during gait (2D video analysis), as was the lateral foot overload (–35% at j15, –46% at M3). According to kinetics data, weakening of the tibialis posterior muscle, which is an accessory plantarflexor, did not decrease left propulsion force and did not modify gait spatio-temporal parameters (Gaitrite).
Discussion.– By minimizing unbalance between the tibialis posterior and weak fibular muscles, botulinum toxin improved the varus deformity, plantar pressures and pain during gait. A complementary study seems to be necessary, particularly to evaluate its long-term preventive role.

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Long-term of using orthopaedic shoes in a Charcot-Marie-Tooth patient: Improve gait a combined clinical and quantified case study

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Keywords: Charcot-Marie-Tooth; Orthopaedic shoes; Gait; Assessment; Gaitrite®
Objective.– The aim of this study was to investigate a long-term use of custom-made orthopaedic shoes (OS) at 10 years follow-up, with a patient with Charcot-Marie-Tooth (CMT) disease; moreover, to describe the interest of gait analysis tools available in neurodegenerative disease. Subject/patient: The case of a 66-year old woman with CMT disease is described. She complained mainly of pain and frequent falling. The physical examination and the clinical gait analysis showed the presence of bilateral foot drop, steppage and varus. Treatment based on physical therapy and OS was prescribed in 2001, to 2011. Complete physical examination and quantified assessment performed with a Gaitrite® system after were made in 2001, 2007 and 2011.
Results and conclusion.– A preliminary study showed the 2001's results where the patient had been wearing the OS for two months: an improvement of functionnal performances (falling and pain disappeared) and an increase of spatio-temporal parameters as walking speed. Moreover, with 10 years follow-up, we observed that clinical data are stabilized since 2001 and quantified data improved until 2007 and are stabilized between 2007 and 2011. Bracing with OS is an excellent means of treating gait disabilities in patients with Charcot-Marie-Tooth disease, combinated with physical therapy during a long time. Gaitrite ® system and video are available for performing quantified gait analysis in clinical practice.

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Muscular dystrophy associated with isolated neurosarcoidosis: A case report

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Keywords: Muscular dystrophy; Neurosarcoidosis
Introduction.– The progressive muscular dystrophy with gammasarcoglycan deficit (LGMD 2C) is a relatively common disabling disease. Sarcoidosis is a multisystem disease of unknown etiology which may rarely involve

neurological and muscle. We report a case of LGMD 2C associated with neurosarcoidosis.

Case report.– A 15-year-old patient with a family history of LGMD 2C was presented with frontal headache patient, diplopia, bilateral ptôsis. The physical examination revealed IIIrd and VIth cranial nerves palsies, a proximal myogenic syndrome with weak tendon reflexes. Ophthalmologic examination revealed a bitemporal hemianopia and papilledema The biological tests showed elevated CPK 657 IU/L, a high prolactin level of 21.5 ng/mL. Serum enzyme angiotensin converting (ACE) was at 50.3 IU/L. Cerebral spinal fluid analysis was normal. Brain MRI showed extensive lesions infiltrating the pituitary stalk and gland, the optic chiasm, cavernous sinus, and the sphenoid and temporal meningeal spaces, iso signal T1, hypointense signal T2 with enhancement after injection of gadolinium. FLAIR supratentorial showed periventricular hyper signals. The electromyography detected abnormalities. Muscle biopsy showed lesions of dystrophy without sarcoid granuloma. The genetic study identified a ''delT521'' main mutation of LGMD 2C. The other tests were normal. The patient was treated with high regimen of corticosteroids and motor rehabilitation with a joint maintenance, strength training and work of walking. With afollow-up of 2 years, muscle strength was improved and the neurological lesions on MRI regressed.

Discussion.– Neurological and muscular manifestations of sarcoidosis are sometimes atypical. MRI is important for the diagnosis and can rule out other differential diagnoses. The association with a LGMD 2C is exceptional. Only a few cases have been reported in the literature. Sarcoid myopathy has been removed by the muscle biopsy. Besides corticosteroids, motor rehabilitation is essential to improve the functional impairement of LGMD 2C.

Conclusion.– Sarcoidosis and DMP are two distinct diseases. Whatever the muscle involvement in sarcoidosis or LGMD 2C, physical rehabilitation is essential for its management.

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Orthopedic evolution of patient with Duchenne muscular dystrophy from reference center of Lille university hospital

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Keywords: Duchenne muscular dystrophy; Orthopedic evolution; Functional surgery

Duchenne Muscular Dystrophy (DMD) leads to progressive muscle degeneration, which can be complicated by tendon contractures and scoliosis. The objective was to describe the orthopedic evolution of DMD patients from referral center of Lille, and their surgical management. The second objective was to study the evolution of our surgical practices between patients born before 1985 and those born between 1985 and 1992.

The study was retrospective, descriptive and analytical, and included 85 patients.

The ankle equinus deformity was more common in the population of 5 to 10 years. From 10 to 25 years, the knee flexion was the most frequent. The hip flexion deformity was the third most frequent. Scoliosis of more than 30° is the orthopedic deformity less raised in our population. The fusion of the spine (69% of patients) and tenotomy ankles (62% of patients) were the most identified interventions. The earliest intervention was the tenotomy of ankles, then came the hips and knees tenotomies and finally the fusion of the spine.

The cumulative incidence of ankles, knees and hips tenotomies were higher in the group of patients born after 1985. On the fusion of the spine, patients were operated later in the group born after 1985.

We have not found any comparative data in the literature regarding the orthopedic evolution and the tenotomies. Anesthetics progress have probably delay the age of spine arthrodesis. There was surely a bias in the collection of scoliosis.

Our study has highlighted the evolution of DMD patients by orthopedic joint. It showed an increase in the incidence of tenotomies and achieving arthrodesis of the spine in a more advanced age. It would be interesting to compare these data with other centers. The study of functional surgery in DMD is to continue to maximize the indication and efficiency through the rehabilitation treatment.

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Polio in Algeria and post polio syndrome epidemiological approach

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Keywords: Polio; Epidemiology; Post polio syndrome

Introduction.– The 1950s marked the beginning of the epidemic in Algeria. The consequences of post polio from 25 to 40 years stability are late degradation is often multifactorial various physiological aging, medical and orthopedic complications, post-polio syndrome (30 to 65% of former polio are concerned). Polio was eradicated in Algeria, our concern is to provide an epidemiological approach to understanding the needs of care, and what is the reality of post polio syndrome.

Patients and methods.– A prospective cross-sectional study in 97 patients, chaff from 2010 to 2013 at the University Hospital of Sidi Bel Abbes and CHU Blida, Service MPR. Etude made statistical software SPSS 17.0.

Results.– Average age 40.

–Unusual academic grade level;
– patients with active (work) less than 35%;
– been made for a specific surgery polio less than 50%;
– paresis of the lower limbs, most answered;
– the majority of our patients were paired;
– a significant number of patients without any steps equipment joint or muscle pain is more common;
– the post-polio syndrome is present;
– the gene is the daily function of orthopedic disorders and also in post polio syndrome;
– the majority of our patients have one or more of these psychological symptoms: anxiety, depression.

Conclusion and discussion.– The population of surviving polio in Algeria still young, and the post polio syndrome is relatively frequent compared to the population in Europe:

The application and care needs increase more in Algeria in this population, carrier effects of polio, orthopedic and functional gene and especially post polio syndrome.

A multicenter research in Algeria, particularly epidemiological need to learn more about the reality of this syndrome and the need for future care.

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Management of spinal muscular atrophy neuro-orthopedic complications: About three cases and review of literature

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Keywords: Spinal muscular atrophy; Neuro-orthopedic complications

Introduction.– Typical childhood spinal muscular atrophy (SMA) is a disease that affects the anterior horn of the spinal cord related to SMN1 gene defects. Since no etiological treatment is currently available, its management is symptomatic and involves multidisciplinary care.

Cases.–

Case 1.– A 2-years-old girl presents a SMA type2 originally referred to hypotonia and confirmed by the genetic study. On examination, she has an axial hypotonia. She received regular physical rehabilitation, and instrumentation.