Motor rehabilitation by hypotherapy: About an experience in four children with acquired brain injury

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Keywords: Hypotherapy; Equine assisted therapy; Children; Acquired brain injury; Motor rehabilitation

Introduction.—Hypotherapy is an alternative physical-therapy in children. The results are positive in children with spastic cerebral palsy but few studies have reported the effects of motor rehabilitation by riding in children with acquired brain injury. The aim of this study was to evaluate the impact of a 10 weeks protocol of hypotherapy on the motor and functional ability in children with brain injuries. The secondary objectives were to select the type of care and assessments best suited to such a project within a pediatric rehabilitation hospital.

Patients and methods.—Four patients aged 4 to 9 years, with acquired brain injury (traumatic brain injury, stroke, and anoxic injury) older than 3 months: three hemiplegic children and a child with a cerebellar syndrome and post-injury dystonia. The children were tested three times in a similar way: at the beginning of the protocol, after 10 weeks of conventional rehabilitation, after 10 weeks of therapy associated with 10 one-hour sessions of hypotherapy. The evaluation included a clinical examination, a walking test, the Gross Motor Function Measure (GMFM), a functional assessment of the upper limbs, a neuropsychological assessment and an evaluation on the pony.

Results.—Spasticity, walking speed, balance, parts B, C, D, E of the GMFM, the dystonia.

Conclusion.—These preliminary results are encouraging. A comparative study versus conventional rehabilitation including more staff would be needed to establish the efficacy of hypotherapy. The ideal would be to use a certified hypotherapist, to use blinded assessments, combining functional tests with more objective analytical tests (posturography, EMG..).

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Balance control in gait children with cerebral palsy

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Keywords: Shaken baby syndrome; Inflicted brain injury; Violence

Introduction.—The SBS, kind of bad treatment on the less than one year child is responsible of the very high rate of death and morbidity that represents an expensive human and financial cost. Major advances knowledge’s were carried recently and achieved regarding the context, the mechanism, the offence repetition rate, the diagnosis and prevention. Two dedicated sites were created, www.syndromedebebesecoue.com and www.bebesecoue.com. Nevertheless, the diffusion of this knowledge is insufficient. In addition the generally accepted idea persist the cause of deleterious malfunctioning in the clinical child decisions and also at the legal and judicial levels.

Objectives.—To promote knowledge, help the practical staff as well as to protect children and their human rights.

Method.—To centralise skills and knowledge and suggest an adequate legal frame.

Results.—The creation of a French-speaking SBS school, a non-profit making association (French law 1901) whose objectives are:  
– to unite and encourage dialogue among involved personnel whatever their skill domain may be and strengthen the links among the different fields (healthcare, social, legal and judicial);  
– to favour the implementation of practice guidelines in the care of SBS young victims;  
– to contribute to the promotion of through animations and the organisation of training sessions guaranteeing the scientific value of promoted knowledge;  
– to encourage research in different domains and thus the emergence of new knowledge on the SBS.

Discussion/conclusion.—The creation of this association is an extra stage that will enable to objectify and encourage the transversal thinking. Some personnel coming from different skill domains have already thought for a long time. It will eventually help the creation of a national center dedicated to this subject.

Further readings


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Materials/participants and methods

The study was to characterize the different strategies used by children with CP in order to propel themselves forward while maintaining their balance. The intersegmental kinematic analysis shows significant differences between the two groups. These differences are also observed for locomotor parameters and for kinetic data of the propulsive forces from the COM-COP dynamic trajectory. Discussion.– Unbalance COM-COP allows, by production of propulsive forces, the forward movement of the subject. However, in children with CP, we observed a postural organization characterized as an “en bloc” strategy resulting in greater COM-COP unbalance. This unbalance results in particular in heavy braking during placement of the foot on the ground.

References


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Depression at the mothers of children with cerebral palsy

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Keywords: Mothers; Children; Cerebral palsy; Depression

Objective.– Study of the psychosocial profile of the mother’s child with cerebral palsy and identify the predictive factors of depression.

Materials and methods.– Forward-looking study led since January 2013. Thirty mothers were questioned during the consultations of their children reached by cerebral palsy at the physical medicine and rehabilitation department. The evaluation of the children takes into account the following parameters: age, sex, clinical state, functional status by the Gross Motor Function Classification System (GMFCS).

Mothers answered the questionnaire which contains: age, sex, educational level, profession, environment of life, health insurance fund, and psychological profile by hospital Anxiety Depression scale (HAD).

Results.– Forty-five percent of the mothers present an anxious and/or depressive psychosocial profile. The presence of a child affected by cerebral palsy increases the risk of depression at the mothers. However, this risk is not influenced by the bad functional status of the children (GMFCS level 4 and 5). The lower sociocultural level, the absence of coverage by the health insurance fund seems to increase the risk of psychological disorder.

Conclusion.– The risk of depression at the mothers of children with cerebral palsy is raised. A medical coverage, a psychological and social support of the children permits to improve the adaptation of the mothers and to decrease the depression risk.

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