Keywords: Children; Gait; Balance; Cerebral palsy

Objective.--Gait involves for the subject to constantly maintain his/her postural balance while propelling forward to move. The study of intersegmental movements (head, trunk and hip) and of the whole body (Center of Mass-COM relative to the Centre of Pressure-COP) provides informations on strategies to control the dynamic equilibrium [1,3]. In Cerebral Palsy (CP), gait often results into a set of persistent movement and posture disorders [2,4]. The aim of this study was to characterize the different strategies used by children with CP in order to propel themselves forward while maintaining their balance.

Results.--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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The benefits of situation layouts in addition to classical cognitive evaluations: Illustration in two cerebral palsy patients
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Keyword: Cerebral palsy

Introduction.--In our unit, we are frequently confronted to the question of the vocational guidance of young adults with cerebral palsy (CP). Thus, beyond the information provided by conventional cognitive assessments (performance and capacity) a more functional vision of the person is necessary. An integrated perspective of the functioning can be given by the intersection of different types of cognitive assessments, including situational assessments. We will present two patients whose situational assessments made accessible information inaccessible by conventional methods, which were fundamental in the formulated advice.

Observation.--Anne (17 years, professional 2nd) and Lucie (20 years, professional Terminal) are moving towards the secretariat/hospitality industry. Occupational therapy interventions and neuropsychological assessments indicate two different profiles but both fragile. They present a significant slowdown, visual-spatial, practical, working memory and executive disorders. However, Anne showed dissociation in the WAIS-III index (verbal scale: lower threshold and performance scale: lower) and her episodic memory seems efficient. Lucie has no dissociation (verbal scale: lower standard and performance scale: limit). But, she presents a selective attention deficit and the deficit in episodic memory. Ecological assessments (secretariat tasks) showed in Anne a practical sense with an adaptation to the reality and confirm her good learning abilities. For Lucie, they showed a lack of identification of mistakes and/or dangerous, incongruous situations and confirm the limits of her learning abilities.

Discussion.--The benefits of situation layouts were fundamental in these patients by revealing encouraging functional potential in Anne and of poor prognostic in Lucie. Ecological assessments provide specific information, which, associated with the observations of ‘classical’ evaluation, allow an overview of the skills in situation with the influence of the emotional, social, relational, practical, motivational factors and personality. In the future, we wish to refine the observation grids. The aim is to achieve standardization of quantitative data, while preserving the qualitative aspects of these assessments, which are fundamental to understand our patients in an individual and comprehensive way.

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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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