Cerebral palsy management and health care network

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Keywords: Cerebral Palsy; Health care network; Multidisciplinary management

Objective.– Cerebral palsy (CP) is caused by damage to the central nervous system. Its clinical expression is pleiotropic and, therefore, requires multidisciplinary management, i.e. at both medical and paramedical levels, including with psycho-pedagogical and educative supports. The paediatric subgroup of the COTER re-education, rehabilitation, re-establishment and physical handicap society of the Midi-Pyrenees ARS is working on a healthcare network related to CP.

Discussion.– CAMSP oversees the detection and early management of CP in France, as well as all other children’s handicaps. However, as CP may present at diagnosis as a pedopsychiatric disorder, this can result in the patient approaching CMP or CMPH, though these organizations have the restrictive skills. The location of CAMSPs, as well as various legal constraints between the organizations, creates wide geographical disparities and/or wide disparities regarding access to CP rehabilitation techniques.

From the age of 6 onwards, the child’s treatment is planned according to facilities within their local area. This is organized in project structures, which results in geographical disparities and a variable range of technical personnel. There is no official control center. Follow-up in the outpatient clinic can be mandatory or is left to the parents to arrange. Also, because CP management is multidisciplinary, it takes time to coordinate between health professionals. This factor is not acknowledged by the health system for private professionals.

Medico-social facilities have no obligation regarding overall methodologies or structure, and this can lead to huge disparities between facilities, whose primary goal is to allot time for rehabilitation to the various dedicated structures. Also, because these facilities are paid by the healthcare system on a short-term basis, this could pervert long-term plans and objectives.

Conclusion.– The management of CP has changed over the last few years, and these changes need to be reflected within the management of the different medical and medico-social facilities in order to give each CP child the same opportunities. More precision of the CP management could be approached by the scientific societies.


CO33-001–EN
Reorganization types of the sensori-motor cortex after unilateral early brain lesion: Case of congenital hemiparesis
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Keywords: Cerebral Palsy; Plasticity; Motor cortex; Somatosensory cortex; Constraint-induced movement therapy

Cerebral palsy results from an early non-progressive injury to the developing central nervous system. This neurodevelopmental disorder may lead to childhood hemiparesis after congenital unilateral lesions. Using functional MRI and transcranial magnetic stimulation, early brain lesions have been shown to induce substantial neural reorganization owing to the higher plasticity in the developing brain. Unilateral injuries can lead to different patterns of reorganization of the motor system [1]. Many patients with pre- or perinatally acquired unilateral lesions either to the motor cortex or the cortico-spinal tract develop ipsilateral cortico-spinal pathways to control the paretic hand with the contra-lesioned hemisphere. This type of reorganization is often observed following unilateral periventricular brain lesions, which damage the cortico-spinal tracts in the periventricular white matter. Consequently, in this group of patients, the primary motor cortex (M1) has been found to be represented in the precentral gyrus ipsilateral to the paretic side. On the contrary, in patients with perinatal unilateral middle cerebral artery stroke, M1 remains organized in the precentral gyrus contralateral to the paretic hand. However, regardless of these inter- or intra-hemispheric motor representations, the primary somatosensory cortex representation remains in the lesioned hemisphere in both groups [2]. These two types of corticospinal reorganization could influence the efficacy of rehabilitation. Indeed, Kuhnke et al. [3] demonstrated the different impact of constraint-induced movement therapy on motor function accordingly. Although the quality of upper extremity movements is improved in both groups, this improvement was accompanied by a significant gain in speed only in patients with preserved contralateral cortico-spinal projections.

References

CO29-006–EN
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Conclusion.– The management of CP has changed over the last few years, and these changes need to be reflected within the management of the different medical and medico-social facilities in order to give each CP child the same opportunities. More precision of the CP management could be approached by the scientific societies.


CO29-007–EN
Transition to adulthood for children with motor disability: Results of the 2010 public SOFMER’S conference
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Keywords: Transition; Childhood; Adulthood; Motor disability

The prevalence of children with motor disability remains stable since the last twenty years (cerebral palsy, neuromuscular diseases, brain lesions,). Ninety percent of those children will reach the third decade. The relay between pediatric and adult departments is not easy, and may gaps exist.

In 2010, the SOFMER proposed the elaboration of good practice recommendations to answer to this problematic. The methodological approach associated: a literature review, a public conference and a pluridisciplinary lecture.

One year later, the texts are officially presented and waiting for the approval of the national health authorizations.

Group work: Blanchard Anne, Bonan Isabelle, Boulay Christophe, Bouteiller Cécile, De Crouy Anne-Claire, Druais Dominique, Eglin Nicolas, Forin Véro,

Joubril Isabelle, Kravtsoff Jimmy, Lacour Arnaud, Medjkane François, Rath Anne, Rech Célia, Schell Mathias, Tapié-Durulle Aurélie, Thon Carole.

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CO33-002–EN
Sexuality seen by the cerebral palsied adolescent.

A-10-year experience
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