Discussion.– ESWT applied 4 times in 2 weeks decreased spasticity level in children without affecting the Quality of Life as other anti-spastic procedures might do. For more reliable statistical assessment and improvement of the methodology further studies are necessary. http://dx.doi.org/10.1016/j.rehab.2014.03.1262

P356-e

Awareness assessment during cognitive rehabilitation in children with severe ABI: A pilot study

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Keywords: Awareness; Self-awareness; Cognitive rehabilitation; Brain injury; Children

Background.– Metacognitive training (MT) is a practice standard in adults with deficits in executive functioning and is beginning to be used in children. As young children with acquired brain injury (ABI) have impaired awareness because of developmental immaturity added to the organically based unawareness/anosognosia due to ABI, MT programs that rely heavily on preserved awareness may not be appropriate for them. There is a lack of awareness measures in children.

Objective.– The aim of this pilot study was to compare three ways of assessing awareness in children with ABI during a MT intervention.

Methods.– We used 3 types of awareness measures: (1) a discrepancy score using the “goal management training questionnaire” adapted to children; (2) an emergent awareness score using an appraisal of task difficulty score; (3) an “identification” score using illustrated stories where characters have daily life problems related to their executive dysfunction.

Results and discussion.– Five children, aged 8 to 14 were included. All three measures showed good feasibility. Awareness deficit scores showed great variability (11–100% for the first measure; 1–100% for the two other measures). Three children showed dissociated scores, which had important implications for response to the MT intervention. Results are discussed based on implications for rehabilitation.

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P357-e

Rehabilitation of language pragmatics after childhood brain injury: Promoting theory of mind through comics and cartoons

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Keywords: Language pragmatics; Theory of mind; Brain injury; Children; SCED; Speech therapy

Background.– Impairment in language pragmatics (LP) is a disabling sequelae after brain injury. Theory of mind (ToM) is required for effective communication. Evidence of effective approaches for improving LP is lacking.

Objective.– The aim of this study was to assess the effectiveness on LP of an intervention promoting ToM.

Methods.– Single-case experimental design (SCED) with repeated ecological measures of LP. Participant: one girl, C.S., aged 12, who had sustained severe traumatic brain injury at the age of 6, with daily life communication impairment. Outcome measures: “Lillois Test of Communication” (TLC) adapted for children, “Verbal/Paraverbal/Nonverbal” questionnaire (VPN), qualitative measures of ToM. SCED repeated measures: an ecological and personalized grid was used weekly to monitor intervention effectiveness: items assessed verbal and non verbal expression and reception behaviors and conversation-interactions during meal time and peer-group discussions. Intervention: age-appropriate and fun comics in individual weekly sessions, administered over a 5-month period aiming at developing ToM and language metacognition.

Results.– Ecological monitoring of LP revealed statistically significant progress in LP (P<0.05) during peer-group structured discussion, but no effect during meal-time unstructured interactions. CS showed qualitatively better ToM ability and made some progress in LP but still suffered severe impairment on VPN and TLC after intervention.

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P358-e

The F-Words in childhood disability: A values statement for children, families and service providers

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Keywords: Disabled children; International Classification of Functioning; Function; Empowerment; Human rights

Introduction.– Motivated by the International Classification of Functioning, Disability and Health (ICF) framework, we propose a novel approach to promoting the rights of children & youth with disabilities. Our “F-words” (Function, Family, Fitness, Friends and Fun - in the context of Future) go beyond ‘fixing’ impairments to focus on outcomes that matter to children/youth and families. A parent member of our research collaborative used the F-words and Human Rights Conventions to proposed an “F-Words Agreement” that promotes equality for children with disabilities and their families.

Material.– The agreement is a ‘contract’ between children/youth and adults involved in their care, focusing on the values underpinning interventions - e.g. listening to Families as the important people in the child’s life, and respecting the child’s right to choose what they find Fun. The poster will (1) illustrate how the ICF, the ‘F-words’ and Human Rights Conventions to proposed an “F-Words Agreement” that promotes equality for children with disabilities and their families.

Discussion.– The F-Words Agreement–available for colleagues wanting to use it–empowers parents to express their values and promotes children’s rights.

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P359-e

Inter-rater and intra-rater reliability of the qualitative assessment of general movements on the infants with typical development and high-risk factors for developmental delay in Taiwan

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Keywords: Neonatal assessments; General movements; Reliability; Kappa

Introduction.– Some studies have proved that assessment of General Movements (GMA) is a sensitive and specific diagnostic tool, and the agreements within assessor or between assessors are good. However, the findings of several other studies were conflicting. With great interest to apply the method in our setting, we would like to assess the reliability of the GMA in Taiwan.
Material and methods.– Fifty video recordings of 32 infants with high-risk factors for developmental delay and 12 normal infants were used for assessment, with 10, 20 and 20 recordings for preterm, withering and fidgety periods, respectively. The tapes were rated by 3 physical therapists at the same time and re-rated one month later. The consistencies within rater and between raters were analysed using kappa statistics.

Results.– The intra-rater agreement was high, but the inter-rater agreements ranged between substantial and high. The lower reliabilities between raters might arise from disagreement in identifying the subcategories of abnormal general movements.

Discussion.– The reliability of the GMA was acceptable either within or between raters. With proper training, the technique could be applied in the infants with high-risk factors for developmental delay in our settings. Further studies to determine the validity of the assessment are needed.

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P360-e
Deep brain stimulation could be an effective treatment in cerebral palsy?

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Keywords: Cerebral palsy; Brain stimulation; Rehabilitation

Introduction.– Cerebral palsy with dystonia-choreoathetosis is a common cause of disability. Pharmacological treatment is often unsatisfactory. Deep brain stimulation could be an effective treatment option in these patients?

Material and methods.– Review of literature based on selected articles from Medline research database until November 2013.

Result.– During the last decade, several case reports have been published about this treatment in patients with dyskinetic cerebral palsy. In most studies, the globus pallidus internus was the primary target for stimulation, but other studies reported the subthalamic nucleus or thalamus with varying results. This technique showed an improvement in disability, quality of life, pain, and social interactions in most patients, whereas cognitive function and mood are preserved. Unlike patients with irreversible deformations, young patients with little spasticity have a better response to treatment, unlike patients with irreversible deformations.

Discussion/Conclusion.– Scales that assess performance in gross motor function should be included in future studies, and physical and rehabilitation medicine should be involved.

Further reading

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P361-e
Radial head luxation in unilateral congenital below elbow deficiency (UCBED), its relevancy

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Keywords: Radial head luxation; Below elbow deficiency

Objective.– In children with a unilateral congenital elbow deficiency, a radial head luxation occurs frequently. No exact data are present to which amount it poses a problem, such as physical complaints or problems in providing and using a prosthesis.

Material.– Three cases with radial head luxation in children with unilateral congenital below elbow deficiency will be presented concerning history, physical examination and work up with diagnostic procedures. The consequences for prosthetic use and therapeutic interventions (two surgical interventions) will be presented.

Discussion.– Radial head luxation in children with UCBED can be seen frequently but exact data concerning its prevalence in children with UCBED are not available. Awareness on symptoms and complaints is mandatory to advice parents on treatment options.

Further reading

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P362-e
Epilepsy in patients with multiple disabilities: Healthcare project in institution

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Keywords: Epilepsy; Multiple disabilities; Healthcare project in institution

Objective.– The aim is to show how a multidisciplinary approach and acknowledgement of the disability impacts patient care.

Method.– Our observational cohort comprised 77 multiply disabled patients, 67% of which suffered epilepsy, both adult and underage, living in one of two APF-Handas institutions (near Rennes). The analysis focused upon different types of epilepsy and care among those patients. Disease severity and subsequent disability were assessed using a scale provided by the EFAPPE comity.

Results.– Multidisciplinary reviewing and coordination on patient cases has resulted in reduced needs of medication and hospital care, and–sometimes surprisingly–better adaptation responses to the disorder.

Conclusion.– To the multiply disabled person, epilepsy in itself has to be acknowledged as a disability. Its treatment should be a whole part of the healthcare project.

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P363-e
Treatment of equinus foot in patients with cerebral palsy

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Keywords: cerebral palsy; Equinus; Spasticity; Toxin; Plaster walking boots; Orthotic

Equinus in patients with cerebral palsy results from two factors: excessive contracture of the triceps surae and muscle retraction.

Objective.— To evaluate functional aspects and to appreciate the results of different treatments in our institution.

Materials and methods.– Ninety infants with cerebral palsy were treated in PMR department at Canastel hospital between January 2011 and May 2012. We measure the maximal passive dorsal flexion angle of the foot, before and after treatment. We appreciate the quality of ankle motion before and after treatment. Treatments were: physical therapy, toxin, progressive lengthening technique using plaster walking boots and orthotic device.

Results.– Forty-eight percent of infants can walk, they had equinus gait, 5% had dynamic equines with good passive dorsal flexion. All patient had toxin injections. Ninety percent had a mean of two plaster walking boots. Mean gain obtained was 10° knee flexed. Eighty percent had orthotic after plaster.