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Keywords: Cerebral anoxia; Cardiac arrest; Cognitive disorders

Objectives. To describe the course of cognitive disorders after cerebral anoxia.

Methods. Retrospective study of the neuropsychological assessments after cerebral anoxia; assessment were performed at the acute phase and several years afterwards; patients were included in the PMR department. Comprehensive neuropsychological assessment before and after cognitive rehabilitation.

Results. Forty-nine patients had been assessed. Fifteen were seen several times, mean delay between the first and the last assessment was 2 years. The first assessment showed attentional, dysexecutive and memory disorders for more than 80% of patients. Memory disorders were due to a storage dysfunction in 40% of cases. Instrumental disorders were also present for 50% of patients. The second assessment indicated significant improvement in all cognitive functions for 87% patients, even if some deficits persisted.

Discussion. Attentional and dysexecutive disorders were the most usual pattern of cognitive impairments. The second assessments pointed out important improvement. Spontaneous improvement could not explain on its own evolution after 2 years. In light of these developments, it seems important to include an MRI assessment in the medical follow up of these patients.

http://dx.doi.org/10.1016/j.rehab.2014.03.1577

CO4-002-e

Questionnaire survey of prolonged disorder of consciousness rehabilitation service provision
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Keywords: Consciousness; Assessment tools; Questionnaire; Stimulant medications

Objective. To ascertain current service delivery for patients in a prolonged disorder of consciousness (PDOC) in the UK.

Methods. A postal questionnaire was developed and piloted in Ireland. After revision for the UK, it was posted to 230 UK based consultant members of the British Society of Rehabilitation (BSRM).

Results. Sixty responses (26%) were received: 36 units did not provide services for PDOC, but 28 did: 4 questionnaires excluded due to incomplete data, leaving n = 24. Thirteen (54%) had established admission criteria, but 20 (83%) had no formal care pathway. Thirteen (54%) units cared for 52 weeks. The most frequently used assessment tools were the WHIM 17 (71%); GCS 15 (62%); and SMART 11 (46%). Fourteen (58%) respondents routinely used medications to stimulate increased wakefulness, including Amantadine 10 (71%) and Zolpidem 9 (64%). Only 6 (26%) provided routine follow-up reviews for patients with PDOC.

Discussion. This first large-scale UK survey of current practice for PDOC patients is thought likely to represent most units in the UK that deliver a PDOC service. Service consistency may be achieved through the establishment of a network specialising in PDOC, with a uniform approach to assessment, management and follow-up care.

http://dx.doi.org/10.1016/j.rehab.2014.03.1578

CO4-003-e

A once-weekly regime of prism adaptation reduces only sensori-motor biases of neglect.

A double-blind RCT essay
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Keywords: Hemineglect; Rehabilitation; Prism adaptation; RCT

Background. Hemineglect can interfere with rehabilitation processes and lead to poor functional outcome in right-brain-damaged patients. Several studies have shown that prism adaptation (PA) to right lateral displacement of the visual field improves hemineglect but the optimal procedure of PA therapy remains to be validated.

Objective. To create cognitive effects and disability reduction and that a once-weekly regime of PA does not provide an additional benefit.

Methods. A total of 40 right-brain-damaged neglect patients were divided into prism (n = 10) and control (n = 10) groups. The prism group performed repetitive pointing with prism glasses twice daily, 1 day per week, for 4 weeks, whereas the control group performed similar pointing training with neutral glasses.

Results. Results showed a significant reduction of the straight-ahead pointing bias in the prism group, and a significant reduction of neglect and disability in both groups, without difference between them.

Discussion. These results suggest that the pointing training itself is efficient to create cognitive effects and disability reduction and that a once-weekly regime of PA does not provide an additional benefit.

http://dx.doi.org/10.1016/j.rehab.2014.03.1579

CO4-004-e

Rehabilitation of hemispatial neglect. Utility to combine prism-adaptation and methylphenidate. RITAPRISM study
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Keywords: Stroke; Hemispatial neglect; Prism adaptation; Methylphenidate

Background. After a right hemisphere stroke, non-spatially lateralized attentional deficiencies may worsen the disability of patients with hemispatial neglect.

Objective. The purpose of this study was to assess the utility to combine prism adaptation (PA) and methylphenidate.

Methods. We performed a randomized-controlled-trial comparing two groups of patients with left hemispatial neglect: a group treated by PA and methylphenidate and a group treated by PA and a placebo. The treatment lasted five days. The primary outcome was the autonomy gain on the functional independence measure (FIM) one week after the treatment was discontinued. The effects of the treatment on non-spatially lateralized and spatially lateralised cognitive functions were also assessed with classical computer and paper and pencil tests.

Results. Twenty-four patients were enrolled. The model showed a significant improvement of the FIM score with time and a significant difference according to the group. Neglects tests did not change differently in the two groups. By contrast, the number of omitted responses on the sustained attentional computerized test decreased with a trend toward a difference between groups.

Discussion. These results suggest that there is an advantage to combine treatments directed to non-spatially lateralized attention and spatially lateralized cognitive functions in hemineglect patients.

http://dx.doi.org/10.1016/j.rehab.2014.03.1580