the undertaking to totally reimburse a patient’s medical expenses and to ensure his/her well-being. All this means involving different doctors and probably contemplating new approaches in which the Physical and Rehabilitation Medicine doctor has a central role.

http://dx.doi.org/10.1016/j.rehab.2013.07.052

P055-e

Interaction between postural and cognitive performances in right brain damaged patients: A dual task study

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Keywords: Postural control; Dual-tasking; Attention; Stroke

Background. – The control of dual-tasking effects is a daily challenge in stroke neurorehabilitation [1]. It may be one of the reasons explaining that patients have a poor functional prognosis after a stroke in the right brain hemisphere, which plays a dominant role in postural control [2]. The purpose of this study was to explore cognitive motor interference (dual task) in right-brain damaged patients after stroke.

Methods. – Thirty right brain damaged patients and 12 healthy subjects performed three different tasks while maintaining a standing position: a control task, a simple attentional task and a complex attentional task. We measured the sway area of the participants on a force platform, including the center of pressure and its displacements.

Results. – Our results showed that stroke patients demonstrated a reduced postural sway compared to healthy subjects, who were able to maintain their posture while performing a concomitant attentional task in the same dual-tasking conditions. Moreover, in both groups, the postural sway decreased with the increase in the attentional load of cognitive tasks. We also found that the stability of stroke patients in dual-tasking conditions increased together with the transfer of the body weight towards the right side, especially when the attentional load of the cognitive tasks and the lower limb motor impairments were high.

Discussion. – These results suggested that stroke patients and healthy subjects adopted a similar postural regulation strategy aimed at maintaining stability in dual-tasking conditions involving a static standing position and different attention-related cognitive tasks. Our results confirmed the implication of attention processes in static postural control in right brain damaged patients.

References

http://dx.doi.org/10.1016/j.rehab.2013.07.053

P056-e

Neglect syndrome in poststroke: Prospective study about 108 cases

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Introduction. – The neglect syndrome (NS) constitutes a disorder of space cognition frequently observed after cerebral vascular injury. This disorder constitutes a predictive factor of functional poor prognosis.

Objectives. – The objective of this study is to identify this syndrome and to seek possible correlations with other functional disorders and the gravity of the disability in hemiplegics stroke victims.

Methodology. – Transverse exploratory study which took place in the MPR service of the CHU of Oran during the year 2011. It concerned right-handed adult patients with a stroke. This syndrome present was considered when the patients are positive at least to one of the following tests: the test of stopping of lines of Albert, the test of stars of Halligan, the test of the bells of Gauthier and the test of Catherine Bergego. The autonomy of the patients was evaluated by indexes of Barthele and the depression through the scale of Beck.

Results. – They are 108 patients, including 49 women and 59 men. The NS was present among 36 patients (33%). The age, the sex and the type of stroke did not have an influence on the frequency at which this syndrome occurred. Whereas, the subjects having presented a state of coma were more candidates to make a NS (P < 0.001). The subjects presenting a NS had an autonomy (Barthele) limited (P < 0.001). The presence of this syndrome is correlated with the difficulties of preparing (P < 0.001), with the disturbances of the function of ambulation, the presence of disorders of the sensitivity (P < 0.001). It was also noted the pejorative character of the depression.

Discussion and conclusion. – The NS is frequent and constitutes a poor prognostic factor which delays functional recovery and makes more severe the situation of disability in hemiplegics stroke victims. It is important to admit these disorders in order to be able to propose an adapted and early therapy.

http://dx.doi.org/10.1016/j.rehab.2013.07.054

P057-e

Multidisciplinary team for post stroke patient: To bring MPR expertise to many patients

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Keywords: Multi disciplinary team stroke rehabilitation; Care pathway

Objective. – In Haute Vienne, there is only one unit of physical medicine and rehabilitation (MPR) for the post-stroke patients. It is essential to have a PMR approach in all the departments for these patients, which is why we created a multidisciplinary mobile team for post-stroke outpatients (HEMIPASS), unit of MPR, universitary hospital (CHU) of Limoges. The objective of the first year was to introduce this team in order to enlarge the recruitment of patients.

Methods. – We compared activity of 2011 and 2012. We are particularly concerned at the origin of the requests and have made a comparison between the first two years of activity in order to see the evolution of recruitment.

Results. – In 2012, the HEMIPASS team has examined 115 requests of taking care. Compared to 2011, we observed a diversification of the origin of requests. There was an increase of requests from outside the CHU 39% vs 24%. For requests from the CHU, requests from Neurology increased strongly by 7 to 26%. However, the MPR unit remained at the origin of the largest number of requests (35%). Therefore, 65% of the requests concerned patients who had not had MPR evaluation.

Conclusion. – The mobile team allows to bring the MPR expertise to many patients who without it would have had no access. It is an opportunity to propose home-based rehabilitation and a specific follow-up with sequelae-specific treatments.

http://dx.doi.org/10.1016/j.rehab.2013.07.055

P058-e

Hallucinations and cortical blindness after peduncular hematoma

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Keywords: Visual hallucinations; Cortical blindness; Peduncular hematoma

Introduction.– Visual hallucinations are common across a range of neurologic or psychiatric disorders [2]. They can occur in the context of eye disease or after a lesion affecting the visual pathways associated with or without visual field defect. If they have poor localising value [1], both topological and hodological factors can account for visual hallucinations [3,4]. Their assessment and management are important to improve the quality of life of patients.

Observation.– We report the case of a 76-years-old right-handed woman presenting with visual hallucinations and cortical blindness after a right peduncular hematoma caused by a ruptured aneurysm of the terminal part of the basilar artery. She had vivid and coloured visual hallucinations during day and night and some elements of prosopagnosia. She did not criticise them but she was not scared by them. Neuropsychological examination revealed difficulties for elaborated language and executive functions whereas verbal memory was preserved. Perceptual and visual mental imagery were impaired. Visual field assessment revealed a very restrictive tubular vision for both eyes. Rehabilitation was largely experimental and consisted in helping the patient to be aware of her hallucinations and to reassure her, in training eye-hand coordination, in developing visual search strategies, in recognising drawings, reading and writing. Progressively, hallucinations became criticised by the patient and cortical blindness partly improved. Tubular vision remained unchanged 3 years after stroke.

Discussion.– Different diagnostics have been discussed for this case, showing the complexity for linking visual hallucinations to a particular dysfunction within the visual circuitry. A better understanding of the mechanisms underlying hallucinations is critical in order to improve the clinical care of these patients [2].

References

http://dx.doi.org/10.1016/j.rehab.2013.07.056

P060-e

Comparison of two accelerometers in walking and non-walking individuals with stroke in medicine and rehabilitation service

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Keywords: Accelerometry; Stroke; Physical medicine

Objective.– Accelerometry appears to be a reliable method for measuring physical activity in stroke walking patients [1]. However, the monitoring of activity in non-walking patient is not approached. We therefore propose to compare two accelerometers in a stroke population, walking and non-walking in hospital.

Patients.– Forty-eight patients (14 walking 34 non-walking; 64.6 ± 19.3 years; Barthel Index: 55.7 ± 24.6) with stroke (period post-stroke: 46 ± 31.4) in medicine and rehabilitation service at Jean Rebeyrol hospital in Limoges.

Patient and methods.– Each patient wore two accelerometers (Movilis, Srett. Worn on hip; SenseWear Armband, Bodymedia. worn on non-paretic arm) during two consecutive days from 9 am to 16 30 pm, corresponding to the time of classic rehabilitation. The information collected by the sensors were, for Armband, energy expenditure (kcal) and the number of steps, and for the movilis, energy expenditure (Kcal) and walking time (min).

Results.– In the walking population, energy expenditure recorded by both sensors were significantly correlated (r = 0.673, P < 0.001). In contrast, for patients in wheelchairs, there was no correlation (r = 0.179, P = 0.246). Similarly, on walking patients, a correlation between the number of steps recorded by the Armband and the time of walk of Movilis (r = 0.787, P < 0.01) was observed. However, for patients in wheelchairs who walked in physiotherapy, no correlation was observed (r = -0.68, P = 0.66).

Discussion.– In walking patients post-stroke, the results of the two accelerometers on energy expenditure and walking activity are well correlated. Nevertheless, the fact that we did not find any correlation in wheelchair-patients shows that accelerometers are perhaps not suitable for this population. This could be explained by the difference in the placement of the accelerometers.

Reference

http://dx.doi.org/10.1016/j.rehab.2013.07.058

P061-e

Transcranial direct current stimulation improves function for stroke patients with pure motor neglect: A case report

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Keywords: Stroke; Stimulation; tDCS; Motor neglect; Rehabilitation

Conclusions.– Restriction of scapular mobility appears in the first weeks after stroke. Despite significant differences observed after months, this impairment seems limited regarding the important difference in mobility observed between normal and hemiplegic subjects. Specific rehabilitation program oriented to improve scapula mobility may change the motor deficiencies observed in stroke subjects.

Further reading

http://dx.doi.org/10.1016/j.rehab.2013.07.057