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].
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P059-e

Evolution of paretic shoulder kinematics after stroke: Comparison of scapular kinematics during sub-acute phase

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Keywords: Stroke; Scapula; Kinematic; Upper limb
Introduction.– Limitation of the range of motion of the shoulder is a secondary deficiency that have been previously described and related to shoulder pain in stroke patients. It may lead to a limitation of the functional use of the upper limb. The delay for such modifications is of importance to define the best rehabilitation strategies for the prevention.
Purpose.– The main objective of this study is to characterize scapular kinematics modifications from the first month to sixths month post stroke.
Methods.–Ten patients and ten matched control subjects were included in a consecutive series. The clinical status of stroke patients was assessed at 1, 3 and 6 months post stroke with Fugl Meyer scale (upper limb part) and the scapular motion was measured during passive elevation (flexion and abduction from 0° to maximal amplitude) of the upper limb by a Vicon motion analysis system.
Results.– Significant differences between the three assessments have been observed in both movements for patients for the external and lateral rotation of the scapula. Comparison between subjects and controls revealed significant differences at all stages for both movements of external and lateral rotation but not for posterior tilt of the scapula. The Fugl Meyer assessment improved significantly from a mean value of 20.9 at M1 to 46.6 and was not correlated to the scapula limitation.
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
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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 D) 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.
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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