Pure motor neglect (MN) was described as an under-utilisation of one side, without defects of strength, reflexes or sensibility [2], following a brain lesion. MN physiopathology remains under debate; among the proposed mechanisms, interhemispheric imbalance following a stroke has been suggested [3]. Non-invasive brain stimulation techniques (tDCS: transcranial Direct Current Stimulation, and rTMS: repetitive Transcranial Magnetic Stimulation) could have a beneficial effect on this imbalance [1].

A right hemisphere stroke patient with a pure motor neglect of the left forelimb, who was functionally stable 5 months after the ictus, benefited from ten tDCS sessions (inhibition of the healthy hemisphere) during classical rehabilitation (motor and functional training). In order to evaluate the intervention effectiveness, repeated assessments of upper limb function were performed with validated tests (Jebsen Taylor Test, Purdue Pegboard Test, Motor Activity Log). Monomanual and bimanual dexterity durably improved. Subjective assessment with the MAL of the use of the left upper limb was stable before the intervention; it significantly and durably improved after the intervention: MAL – Amount of use – 1.9 at pretest, 3.5 at posttest (P = 0.003), 3.9 after 3 months; MAL – quality of movement – 2.1 at pretest, 4 at posttest (P = 0.0004) and 4.4 after 3 months).

This case report reports the efficacy of an inhibitory stimulation of the healthy hemisphere in a case of pure motor neglect after stroke. To our knowledge, it is the first description of functional improvement in pure motor neglect achieved by non-invasive brain stimulation associated to conventional rehabilitation.

References
[3] Punt TD, Riddoch MJ. Motor neglect: implications for movement and gait analysis parameters), disabilities (Frenchay Arm Test, 10 minutes on each hemisphere. During the rTMS treatment, there were three sessions of rTMS spaced by 6 months. Each rTMS session consisted in 1200 pulses of rTMS on the primary motor cortex of the unaffected hemisphere vs. sham stimulation on 5 consecutive days, crossover design) was performed, including ten chronic stroke patients with hemiplegia. The primary outcome measure was the 10-m walking speed. The secondary outcome measures assessed impairments (Fugl-Meyer score, Ashworth scale, and gait analysis parameters), disabilities (Frenchay Arm Test, 6-minute walking test, functional independence measure score), quality of life (SF-36 questionnaire) and satisfaction.

Results.– No effect of the rTMS was found concerning the primary outcome measure (10-m walking speed). Among the secondary outcome measures, the sole significant change was a diminution of the percentage of double-limb support observed by gait analysis.

Discussion.– This study does not argue for the efficiency of 1 Hz rTMS of the primary motor cortex of the unaffected hemisphere on gait in chronic stroke patients. The diminution of double-limb support duration after rTMS could be related to an improved balance and motor control.

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Keywords: Stroke; Follow-up; Functional outcome; Mortality; Quality of life; Obesity

Background.– Caribbean stroke patients are younger than the North Atlantic ones; therefore stroke social costs must be higher in these countries. Functional outcome follow-up studies show a great variability of results.

Methods.– We performed a prospective study of Guadeloupian successive patients admitted at University Hospital of Pointe-à-Pitre between December 2010 and February 2011 for a first hemispherical stroke in order to describe their functional outcome, mortality rate and quality of life, one year post stroke. Patients were evaluated in the emergency department, at hospital discharge and one-year post stroke using National Institute of Health Stroke (NIHSS), Rankin (mRS) and Functional Independence Measure (FIM) scales. Quality of life was estimated using MOS-SF-36 scale.

Results.– Among 140 patients admitted for stroke, 78 patients (33 women) were included. Haemorrhagic stroke represented 24.4%. Mean age was 62.1 ± 17.7 years, 70.5% of patients had hypertension, 29.4% diabetes, and 23.6% chronic renal failure. Mortality rate was 29.4% and recurrence rate 2.6% one year post stroke. We evaluated 39 of 55 survivors (71%). Scale evolution (emergency vs. one year later) was: NIHSS 6.2 ± 4.9 vs. 3.3 ± 3.9 (P < 0.001), mRS 2.2 ± 1.6 vs. 2.1 ± 1.8 (P = 0.467), FIM 103.2 ± 28.2 vs. 101.7 ± 31.5 (P = 0.031), Body Mass Index (BMI) was significantly higher (+2.3 kg/m²). In multivariate analysis, aphasia, hemianopia and incontinence significantly influenced one year FIM scale (P < 0.001). Quality of life was altered.

Conclusion.– One year after a first stroke, despite a significant improvement of neurological handicap, the level of dependence was stable and quality of life altered. These data must be taken into account in the development of the socio-professional projects after a stroke. They encourage seeking anew rehabilitation approach for hemispheric stroke.

Further reading


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Introduction.– Swallowing problems are very frequent in Wallenberg syndrome. In these patients, the paralysis of the IX and the X cranial nerves, often unilateral, could compromise swallowing efficiency for a long term. This need for the patient to have an exclusive feeding with a gastrostomy for many years. In these patients, the paralysis of the IX and the X cranial nerves, often unilateral, could compromise swallowing efficiency for a long term. This need for the patient to have an exclusive feeding with a gastrostomy for many years.

The aim of our study was therefore to test the effect of cortical repetive transcranial magnetic stimulation (rTMS) on oropharyngeal dysphagia in Wallenberg syndrome.

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Introduction.– Swallowing problems are very frequent in Wallenberg syndrome. In these patients, the paralysis of the IX and the X cranial nerves, often unilateral, could compromise swallowing efficiency for a long term. This need for the patient to have an exclusive feeding with a gastrostomy for many years. The aim of our study was therefore to test the effect of cortical repetive transcranial magnetic stimulation (rTMS) on oropharyngeal dysphagia in Wallenberg syndrome.
session, submental electrical stimulation was performed with TENS at sensitive
threshold.

Results.– The three patients did not present adverse effect of magnetic
stimulations. Initially, before rTMS, all the patients presented a pharyngeal
residue of all the bolus, without any efficient swallowing with an increase of
superior oesophageal sphincter. This was responsible of bronchial aspirations.
After three sessions of rTMS, 18 months later, one patient could have a partial
oral feeding, one patient recovered a pharyngeal peristalsism with an opening of
the superior oesophageal sphincter, and one patient did not improve the
swallowing function.

Conclusion.– This study showed that transcranial rTMS could be an original
treatment of oropharyngeal dysphagia in brainstem infarction and should be
evaluated.

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P065-e

Dependency and autonomy evaluation after stroke

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Keywords: Stroke; Autonomy; Dependency
Introduction.– Strokes are sources of functional disabilities affecting the
patient’s autonomy. The main objective of this study was to evaluate autonomy
of stroke victims before and after rehabilitation.

Patients et methods.– This is a prospective study including 70 patients suffering
from stroke attacks and addressed for rehabilitation. We evaluated their
autonomy before, at the end of treatment and 6 month after. This evaluation was
based on KATZ autonomy scale of activity of daily living and by the MIF scale.
In a second step, we sought a possible correlation between these scores and
management delay, pathologies associated (hypertension, diabetes, heart
disease) and presence of complications of stroke like capulitis, shoulder-
hand syndrome or foot equine.

Results.– We collected 54 men and 16 women, average age 64 years (44–89
years). They consult after one week to 4 months after stroke. 18 patients already
came with a stroke complication. The initial KATZ score was 16 with a clear
predomination on transfers, transferring and clothing. The average MIF was of
76/126. We noted a correlation between the presence of complications (25%), of
comorbidity in 80% of the cases, the delay of the time of the rehabilitation (one
month) and the deterioration of the two scores.

Discussion.– Many autonomy scales are exposed in literature, but MIF remains
a reference scale to evaluate dependency. In this study, it is clear that the stroke
deteriorate considerably the autonomy of the patient especially in the presence
of complications or comorbidity. An early rehabilitation is essential to minimize
the functional after-effects and to improve autonomy of stroke victims.

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P066-e

Depression after stroke: What characteristics?

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Objective.– The main aim of this study is to seek the depression within a
population of stroke hemiplegics and to secondarily identify possible relations
between this disorder and the factors associated prognoses.

Method.– It is an exploratory study which concerned 214 adult hemiplegics
stroke victims, admitted in the Department of Physical Medicine of the CHU
Oran over one 26 months period. Were evaluated subjects that do not have
important vigilance disorders, a state of insanity or a major aphasia. We based
ourselves on the criteria of the DSM-IV to diagnose depression. Autonomy in the
activities of everyday life is evaluated through indexes of Barthel. Many functions
were evaluated by scales suitable and which were indexed in a card standardized.

Results.– They are 214 patients including 114 men and 100 women. The
depression is present at 56.1% of the patients, the women are touched more than
the men (P < 0.05). In the same way the subjects of more than 70 years are more
exposed (P < 0.001). The depression is all the more severe as autonomy in the
activities of daily life is somewhat limited (P < 0.0001). Significant relation-
ships were found between the depression and the presence of urinary
dysfunctions (P < 0.05), of orthopedic disorders (P < 0.05) or of cognitive
deteriorations. A correlation between the depression and the presence of sexual
disorders is established (P < 0.0001).

Discussion and conclusion.– The depression was found in 56.1% of the cases.
This result is in the broad interval reported in the literature. The severity of the
disability and the deterioration of certain functions are many elements
supporting and/or worsening the occurrence of the depression in poststroke
hemiplegics.

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