Introduction. – Currently, the driving resumption procedure for stroke patients is complex in terms of evaluation, medical advice and legislation. Not much data is available on the resumption of driving after a stroke. The objective of our study is to describe the frequency of driving resumption after a stroke based on population, activity status and the driving resumption conditions.

Materials and methods. – Retrospective study by phone survey to all stroke patients hospitalized in Neurology (NeuroVascular Unit) at the University Hospital of Caen in 2011.

Results. – Study ongoing.

Discussion. – In the literature, 30 to 50% of patients drive again after a stroke. The average time to complete a driving test is 8.8 months (from 1.9 to 18.5 months), and the time to restart driving is about 18 to 20 months.

http://dx.doi.org/10.1016/j.rehab.2014.03.084

P430-e

Stroke in the very elderly: Characteristics and outcome in patients over 90

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Keywords: Stroke; Elderly; Disability; Rehabilitation

Introduction. – The very old are expected to become a growing part of the stroke population in the developed countries, but related information is limited.

Materials and methods. – Retrospective hospital-base population analysis of patients discharged from hospital with a principal diagnosis of acute stroke (ICD-10: 160–164) from 2003 to 2007. Patients over 90 were compared with the group of 85–89 regarding demographic data, stroke type, risk of disability, length of hospital stay and discharge destination.

Results. – Among 898 patients 42 (4.6%) were ≥ 90 (69% female), and 87 (9.6%) 85–89 (56.0% female). Ischemic stroke represented 83.3% and 77.0% respectively. Seven-day case fatality was 14.3% and 13.8%, and 30 day case fatality 26.2% and 26.4%. However severe disability (m-Rankin ≥5) was observed among the eldest group, from 7.1% pre-stroke to 35.7% after stroke, increasing by 28.6% vs. 13.8% (P < 0.01), 14.3% of nonagenarians and 27% of the younger attended rehabilitation. LOS > 30 days and discharge to long-term care facilities were more frequent among the eldest: 9.5% and 14.2% vs. 4.6% and 8.0%, whereas discharge to prestroke residence was less common: 59.5% vs. 63.2%.

Discussion. – Stroke patients ≥ 90 showed higher disability at discharge, longer hospitalization, limited access to rehabilitation, and lower home return.

http://dx.doi.org/10.1016/j.rehab.2014.03.085

P431-e

Correlation and recovery of balance in hemiparetic patients

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Keywords: Stroke; Evoked potential; Balance

Introduction. – This study was undertaken to investigate correlation and recovery of balance ability according to motor evoked potentials (MEPs) and somatosensory evoked potentials (SSEPs) of lower extremity in sub-acute hemiparetic stroke patients.

Material and methods. – Thirty-seven hemiparetic stroke patients (average age, 66.7 ± 12.6 years) were enrolled for this study. All subjects performed motor evoked potentials (MEPs) of tibialis anterior muscle and somatosensory evoked potentials (SSEPs) of tibial nerve at baseline. Two groups were classified as response of evoked potentials (MEP (+): presence of MEPs response, MEPs (-): absence of MEPs response, SSEP (+): presence of SSEPs response, SSEPs (-): absence of SSEPs response). Patients were evaluated for balance ability using the Bio rescue posturography. Among several parameters, we used weight distribution indices expressed by surface area (WDI-Sa) and pressure (WDI-Pr). Parameters were checked during eye open (EO) and eye closed (EC) state.

Results. – In comparison of posturographic parameters according to EPs response, WDI-Sa (EO) (0.83 ± 0.14 vs 0.97 ± 0.22, P = 0.04), WDI-Sa (EC) (0.81 ± 0.17 vs 0.95 ± 0.21, P = 0.04), WDI-Pr (EO) (0.69 ± 0.25 vs 0.90 ± 0.29, P = 0.03) and WDI-Pr (EC) (0.69 ± 0.25 vs 0.98 ± 0.35, P = 0.01) scores were significantly lower in MEPs (-) group than MEPs (+) group.

Discussion. – Our findings suggested that MEPs response was significantly correlated with balance ability at baseline in sub-acute hemiparetic stroke patients.

http://dx.doi.org/10.1016/j.rehab.2014.03.086

P432-e

Prevention of falls among patients with recent vascular hemiplegia at a physical medicine center: Assessment of a specific prevention program

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Keywords: Hemiplegia; Stroke; Fall; Prevention; Risk factors

Objective. – Analyse the effectiveness of a protocol for the prevention of falls in hemiplegia.

Methods. – A descriptive and retrospective study, performed over a period of 24 months of 114 patients older than 16 years of age, all victims of a recent stroke. Two groups were evaluated: one “fall prevention program” (presence of fall risk predictors), the other without these factors. The prevention program decided and followed by the medical team includes: magnetic belt, supervision during transfer, secured facility on toilet.

Results. – There was 42.98% of hemiplegics who fell down. In the group “prevention program” (n = 35), 15.79% fell, this rate increases in the other group (n = 79) up to 27.19%. Serious lesions occurred only in the group “without prevention program”. A breach of protocol was noted in 55.81% of cases.

Conclusion. – The fall prevention program seems to reduce falls. A good identification of fall risk predictors and respect of the prevention program by caregivers are advisable.

Further reading


http://dx.doi.org/10.1016/j.rehab.2014.03.087
from C5 to C8 and absent in the lower limbs. Two months later, a motor control on the left hand was observed. 

Discussion. – For this patient, the relevance of the MEP in sub-acute stage of brainstem infarct was initially discussed because of the presence of a beginning of motor control but they were finally performed with two objectives; to try to better predict functional recovery and mainly to contribute to the announcement of the disability.

Further reading
http://dx.doi.org/10.1016/j.rehab.2014.03.088

P434-e
Long-term functional improvement in hemiplegic patients after stroke: A series of case
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Keywords: Stroke; Gait; Long-term improvement

Objectives. – Estimate the functional long-term improvement of walking in hemiplegic patients after stroke taken care in PRM.

Materials and methods. – Retrospective study about a series of patients after stroke followed in PRM during at least 4 years. Assessment criteria were the qualitative and quantitative parameters of walking. Autonomy in daily living, equipment, local treatment of spasticity, and functional surgery of lower limbs were also studied.

Results. – Thirty patients were included. The duration of follow-up was from 4 to 13 years with an average of 6.8 years. Eight patients (26.6%) improved in terms of speed, symmetry of steps and reduction of the equipment, 4 (13.3%) deteriorated, and 18 (60%) remained stable. Twenty-eight patients (93.3%) benefited from a treatment by botulinum toxin; 7 (23.3%), of a functional surgery; and 27 (90%) had an equipment.

Conclusion. – More than a quarter of the patients pursue a functional improvement several years after their stroke, both on their capacities of walking and on their autonomy in daily living.
http://dx.doi.org/10.1016/j.rehab.2014.03.089

P435-e
Fit-to-drive after stroke and traumatic brain injury: A combination of performances in cognitive tests and driving simulator
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Keywords: Driving Simulator; Traumatic brain injury; Stroke; Neuropsychological assessment; Driving ability

Introduction. – After suffering brain damage people are often interested in returning to drive. The aim of this study is to find out if there are differences in driving ability between TBI, stroke and controls using an evaluation that includes not only paper-and-pencil and computerized cognitive tests, but also a driving simulator (DS).

Material and methods. – We select TBI and Stroke patients with lesions in their right or left hemisphere and a control group paired for age and education. Each subject is assessed using a protocol that includes paper-and-pencil tests, computerized cognitive tests, questionnaires and a DS session.

Results. – A greater correlation is to be expected between performance in DS and performances in tests that have a greater complexity and reality-oriented nature. We also anticipate a different pattern of performance between groups.

Discussion. – The DS performance could be a useful tool for the assessment of drive fitness.
http://dx.doi.org/10.1016/j.rehab.2014.03.090

P436-e
Predictors of motor recovery after ischemic stroke in 64 patients
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Aim. – The aim of our study was to identify anamnestic and clinical predictors of motor recovery after experiencing an ischemic stroke.

Methods. – We conducted a retrospective study including patients with acute phase of IS with initial neurological deficit. All patients underwent physical rehabilitation. Recovery was defined as a NIHSS score of zero and Barthel Index greater than 90.

Results. – Among 419 patients, 64 (15.2%) recovered fully their motor deficit. Mean patient age was 58.1 years (P<0.03) with a sex ratio M/F of 0.6:1. The mean duration of hospitalization was 7.33 days (P<0.01). Infarction in the territories of the anterior circulation was inversely correlated with motor recovery (P<0.001). On the contrary, lacunar infarction was associated with a favorable outcome (P<0.001).

Discussion. – In our study, young age, female gender, presence of a history of transient ischemic attack and the lacunar infarction are correlated with total motor recovery after experiencing an ischemic stroke neurological deficit. These factors are discussed according to literature data.

Conclusion. – It is important to determine the recovery potential of motor deficits and therefore to dispose of early anamnestic and clinical predictors.
http://dx.doi.org/10.1016/j.rehab.2014.03.091

P437-e
Exploration of factors influencing quality of rehabilitation for those with stroke in Madagascar
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Keywords: Stroke; Service; Low-resource country

Background. – In contrast to industrialized societies the pathway for rehabilitation of those with stroke is poorly developed, lacking many resources, in low income countries. This study explored these at a regional rehabilitation centre in Mahajanga.

Methods. – Interviews were held with 32 patients with stroke using the centre between March and August 2013 and with their 6 physiotherapists who then participated in a focus group. The questions explored social and practical facets of the rehabilitation given. Patients were categorized according to demographics, chronicity and severity of disability.

Results. – Responses were analyzed. Six groups of problems were identified by staff relating to patients and families, conditions of work (100% responses) and geography 40% (the region is vast). Forty percent responses noted limited diagnostic and teaching facilities and specialist staffing. Personal factors contributed in 20%. Most patients were appreciative of care, but complained of delayed, short treatment times inadequate to treat or train, given in a poor clinical setting. Many stated that improvements in knowledge, and attitudes of staff were needed.