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Ischemic Stroke patients in rehabilitation center and cause investigation

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Keywords: Ischemic stroke; Rehabilitation; Causes

Introduction.– Ischemic Stroke patients are often treated in rehabilitation centers without being fully investigated from the reasoning and cause of stroke point of view during the earlier hospitalization period.

Material and methods.– Forty-five ischemic stroke patients were investigated during their stay in “Anagnostis Rehabilitation Center” with hematologic and biochemical blood tests, ECG, Holter 24 hour ECG, echocardiogram and carotid & vertebral artery triplex ultrasound. Additional CT angiography or MRAniography were performed in a few cases. There was no prior investigation during early hospitalization. Two patients were additionally checked with coagulation factors investigation.

Results.– Sixteen patients were discovered with chronic atrial fibrillation, 8 with paroxysmal. In 4 patients atrial fibrillation coexisted with carotid artery occlusion. Vertebral artery stenosis was observed in one patient and thin basal artery in another one. Eight patients were diagnosed with serious carotid artery stenosis. Research results were not of diagnostic value in 6 patients and one was found with hypercoagulation syndrome.

Discussion.– Determining the cause of the ischemic stroke disease is of top priority for further treatment and prognosis even during the period of rehabilitation, therefore improving overall therapy and prevention of new incidents.

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P444-e
Audit of investigation and management of stroke patients admitted to the stroke unit, Southampton University Hospital, UK

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Keywords: Stroke; Brain CT; Antiplatelet

Methods.– In this prospective audit we selected 50 patients who admitted in our stroke unit in April and May 2013 and we audited the following factors: time interval between admission and requesting Brain CT scan, time interval between Brain CT scan request and performing Brain CT scan, time interval between performing Brain CT scan and prescribing antiplatelet, time interval between prescribing and administrating antiplatelet. Exclusion criteria were: hemorrhagic stroke, patients who received thrombolysis and those whose diagnosis turned out to be non-stroke. Participants: 30 males and 20 females. Types of infarcts based on Oxford classification were: 29 PACS, 11 PACS, 6 LACS and 4 POCS. Standard: RCP stroke guideline 2012.

Results.– Seventy-six percent had brain CT request within 12 hours of admissions and 54% had brain CT within the same period of admission. For 74% of patients antiplatelet prescribed within 6 hours of performing Brain CT. Seventy-eight percent of patients received antiplatelet up to 6 hours after prescription.

Conclusion.– Only around half of the patients had brain CT within 12 hours suggested by RCP guidelines. Most of the patients received antiplatelet in a timely period but there have been some delays up to 2 days in some cases. Suggestions made for improvement of practice.

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P445-e
Can Ekso™ be a safe and feasible training device for walking training in patients with hemiplegia after stroke?

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Keywords: Stroke; Hemiplegia; Walking training; Exoskeleton

Introduction.– Ekso™ is a wearable, motorized exoskeleton that enables patients with hemiplegia after stroke to stand up and walk. Development of unilateral control makes it safer for patients with walking difficulties, reduced postural control, weight bearing in stance and clearance in swing, thus it was of interest to explore whether the Ekso® was safe and feasible for walking training.

Observations.– A project started in October 2013, and the 2 first cases of 5–6 are reported. Patients trained 9 sessions over 5 weeks (case 1) and 8 sessions over 3 weeks (case 2). Training time: 45–50 min, don and doff time: 10–15 min, walking time: from 7–8 to 13–14 min, number of steps from 290 to approximately 500. Personal assistance reduced from moderate to light. Both reported satisfactory to very satisfactory training sessions. No adverse events were registered and spasticity reduced during training. Case 1 used a cane in the beginning, and not at the end.

Discussion.– Walking time increased, and Ekso™ allows for training of postural control, weight shift and mobility. No adverse events like sores or falls, and high satisfaction were registered. Preliminary experiences of feasibility and safety of Ekso™ were mainly positive, but further research is required.

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P446-e
The use of Mirror Therapy in stroke patients with hemiplegic upper limb: A randomized controlled trial

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Introduction.– Upper limb hemiplegia is a problem in stroke rehabilitation.

Aim.– To evaluate Mirror Therapy (MT) as addition to conventional rehabilitation in the recovery improvement of stroke patients with upper limb disability. A prospective, single center, randomized controlled trial.

Material and methods.– Thirty stroke patients referred for rehabilitation to the PRM Dept. of our Hospital between 01/03/2013 and 30/11/2013. Initiation of evaluation was >4 weeks from stroke. All patients with upper limb plegia (Motricity Index ≤ 77), Patients randomly allocated to MT (n = 15) or to CT group (n = 15). Both followed rehabilitative treatment. In addition, MT Group had 30 minutes of MT. Motricity Index (MI) and the Functional Independence Measure (FIM) estimated before and after treatment.

Results.– After 2 month treatment (20–24 sessions) both groups showed improvements in variables measured. Moreover patients of MT group had greater improvements in MI and FIM values compared to CT group. No adverse event was recorded.

Discussion.– MT is a promising method to improve motor recovery of the upper limb in stroke patients. Low cost and acceptability makes MT useful in stroke rehabilitation.

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P447-e
Falls incidence and risk factors in stroke patients after discharge from PRM Unit

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Introduction.– The first results of the prospective study show an important impact of stroke on the patients’ sexuality during the first period after stroke. More detailed results will be possible to integrate research.

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