

Doctoral dissertation

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### **Abstract**

The purpose was to investigate aspects of depression, cognition and motor activity in geriatric stroke rehabilitation patients. Six depression rating scales, GDS, Zung, CES-D, CPRS-D and Cornell, were compared in 40 patients. The validity was good for all scales except for the Cornell scale. A comprehensive investigation was done in 116 elderly stroke patients. There was no difference in prevalence and severity of post-stroke depression in relation to side of lesion. A test for receptive aphasia, the Token test, showed that 75% of patients with left hemisphere lesion and aphasia, 36% of patients with right hemisphere lesion and 5% of controls had abnormal test initially. The relationships and sensitivity of different visuo-spatial neglect tests were examined. Sensitivity was around 50% for the best tests. Neglect patients showed a greater cognitive dysfunction initially and a slower recovery. The validity of a cognitive test, the MMSE, was examined. Five neuropsychological tests were used as a subgroup of patients. MMSE scores were significantly lower for the patients than for the controls. The sensitivity of the MMSE was 56%, the specificity 80% and the false negative ratio 39% against the neuropsychological tests. Motor activity after stroke was assessed by parts of the Fugl-Meyer test in different infarction subgroups and initial severity groups. The initial severity groups were better predictors for outcome. Multiple regression showed three variables to be predictors: initial motor activity, Barthel Index and right hemisphere lesion.

This dissertation consists of a collection of articles. List of included articles:

- Agrell B, Dehlin O. Comparison of six depression rating scales in geriatric stroke patients. *Stroke* 1989;20:1190-1194.
- Agrell B, Dehlin O. Depressive symptoms in stroke patients with left and right hemisphere lesions. A study in geriatric rehabilitation in-patients. *Aging Clin Exp Res* 1994;6:49-56.
- Agrell B, Dehlin O, Inga-Lill Nilsson. Receptive aphasia in elderly stroke patients as assessed by the Token test. *Scand J Log Phon* 1995;20:27-34.
- Agrell B, Dehlin O, Dahlgren C. Neglect in elderly stroke patients. A comparison of five tests. *Psychiatry Clin Neurosciences* 1997;51:295-300.
- Agrell B, Dehlin O. Mini Mental State Examination in geriatric stroke patients. Submitted 1998.
- Agrell B, Dehlin O, Malmberg R. Motor recovery following stroke. Relationships to classification of infarction subgroups and initial severity groups. Submitted 1998.