SHORT COMMUNICATION

EVALUATION OF COGNITION AND MOOD IN POST-STROKE MIXED DEMENTIA PATIENTS – A PILOT TRIAL

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ABSTRACT

Dementia and depression are both frequent in stroke patients. Evaluation, follow-up of the severity and treatment decisions are important in such patients. Moreover, neuropsychological testing for cognition and mood interfere and various neurological deficits could further on alter the testing. The picture is even more complicated, considering that dementia can lead to depression and vice versa. In our current pilot study we evaluated patients in days 3-5 after the onset of ischemic stroke. We found no significant correlations between cognition and depression scores in our sample, result which suggests that at very short interval after stroke, cognitive disturbance is not a predictor for depression.

Key words: ischemic stroke, dementia, depression, neuropsychological testing.

INTRODUCTION

Dementia is more frequently mixed than "pure" in respect to etiology (1) and vascular risk factors contribute both to dementia and depression (2-3). Post-stroke dementia is a frequent condition which associates serious neurological deficits, cognitive deterioration and depressive state (4-7). To evaluate such patients is a difficult task and use of neuropsychological scales can be of limited value due to overlap of symptoms (8-9). Therefore in this study we tried to evaluate such post-stroke patients for both cognitive and depression states. The aim of this pilot study was to check correlations of cognitive and depression scales scores in post-stroke cognitively affected patients.

MATERIAL AND METHODS

Eighteen patients hospitalized for ischemic stroke and with history of progressive cognitive decline were evaluated. Brain CT demonstrated in all cases both hippocampal atrophy and vascular lesions. None of the patients had aphasia as a symptom of the current stroke or positive history for a previous stroke. The patients were evaluated in days 3-5 after onset of stroke symptoms by MMSE, ADAS-cog, dementia Blessed scale, Hamilton depression scale and ischemic Hachinski score. The statistical analysis of the data was done using SPSS 12.0 statistical software.

RESULTS

Sexual distribution was even (9 females, 9 males). Age was 72.7 ± 9.0 years (between 53 and 84 years). Identified vascular risk factors were hypertension (55% of cases), diabetus mellitus (50% of cases), dyslipidemia (44% of cases) and smoking (38% of cases). Cardiovascular comorbidities were frequent: ischemic heart disease was present in 44% of cases, atrial fibrillation in 22% of cases.

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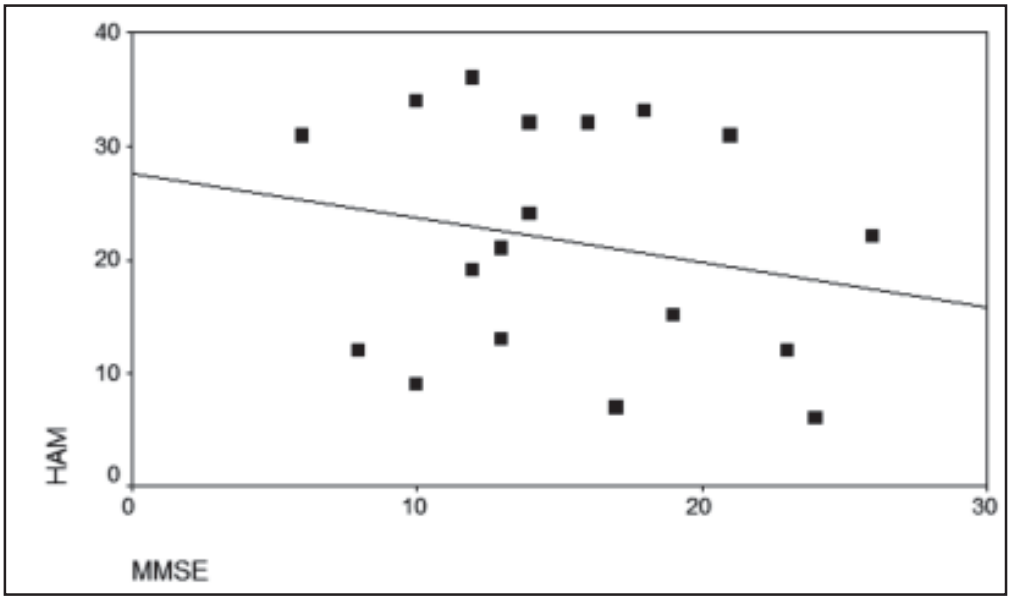

Figure 1. *Correlation of MMSE and Hamilton depression rating score (R=-0.216, p=0.389).*

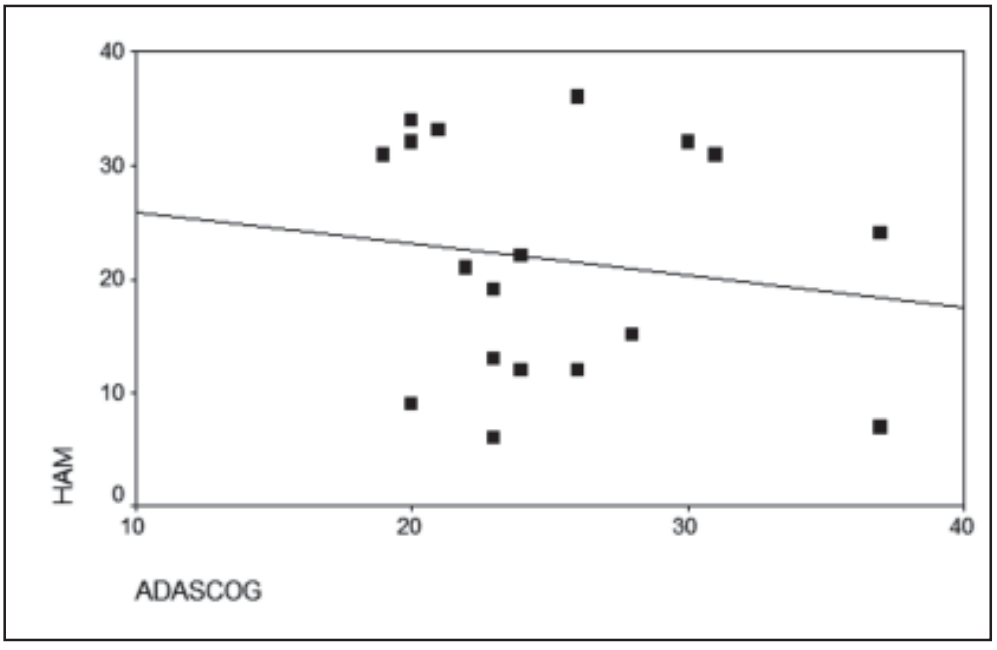

Figure 2. *Correlation of ADAS-COG+ and Hamilton depression rating score (R=-0.147, p=0.560).*

Average MMSE score was 15.3 ± 5.6 (between 6 and 26). We found no correlation between the MMSE score and the age of the patients, ADAS-cog score or dementia Blessed scale. As classified by ischemic Hachinski score, vascular dementia cases were associated with a lower MMSE score and to more severe depression as evaluated on Hamilton scale as compared to mixed dementia cases. No correlation between MMSE score or ADAS-cog score and Hamilton scale score was found - figures 1-4. Also no correlation was found between depressive symptoms and age of patients.

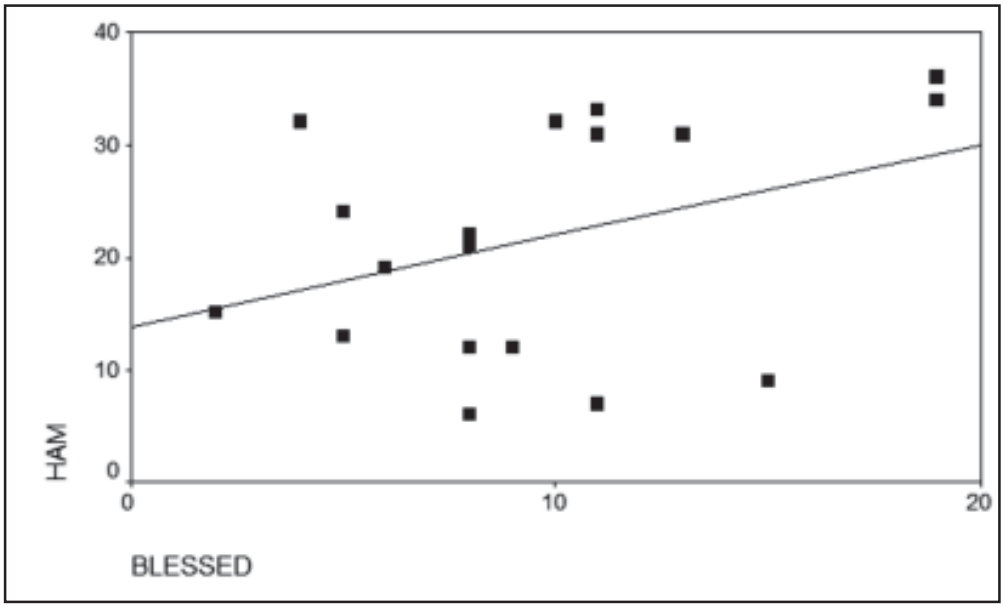

Figure 3. *Correlation of Blessed dementia scale and Hamilton depression rating score (R=0.368, p=0.133).*

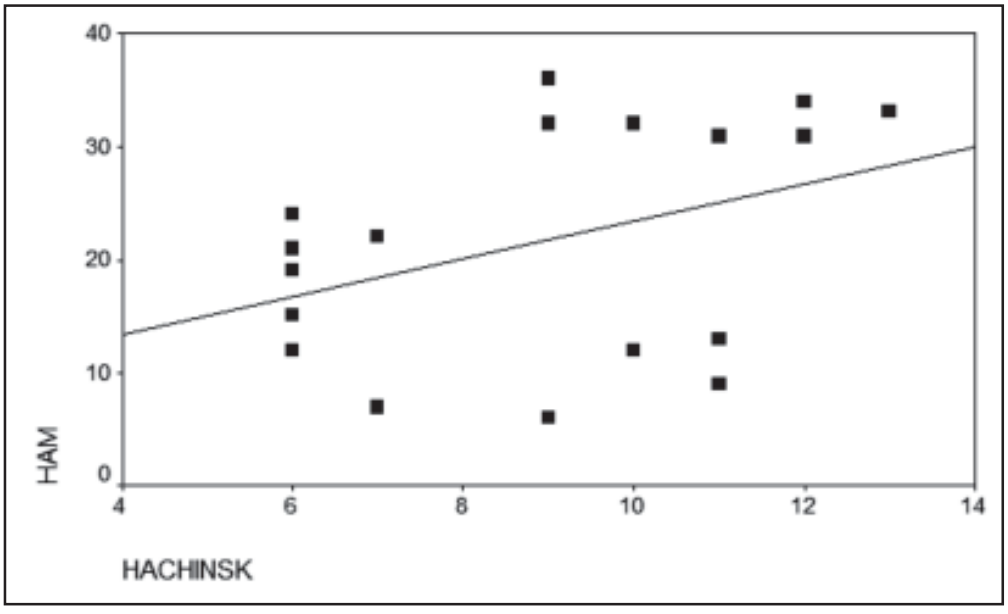

Figure 4. *Correlation of Hachinski scale and Hamilton depression rating score (R=0.392, p=0.108).*

DISCUSSION

Both cognitive decline and depression are frequent in post-stroke patients. In our pilot-study no correlation was found between cognition and depression evaluation scores, possibly due to the limited number of patients analyzed. However, interference of depression with cognitive testing and evaluation of depressive states in demented people are still matters difficult to sort out, concept supported by other as well (10-12).

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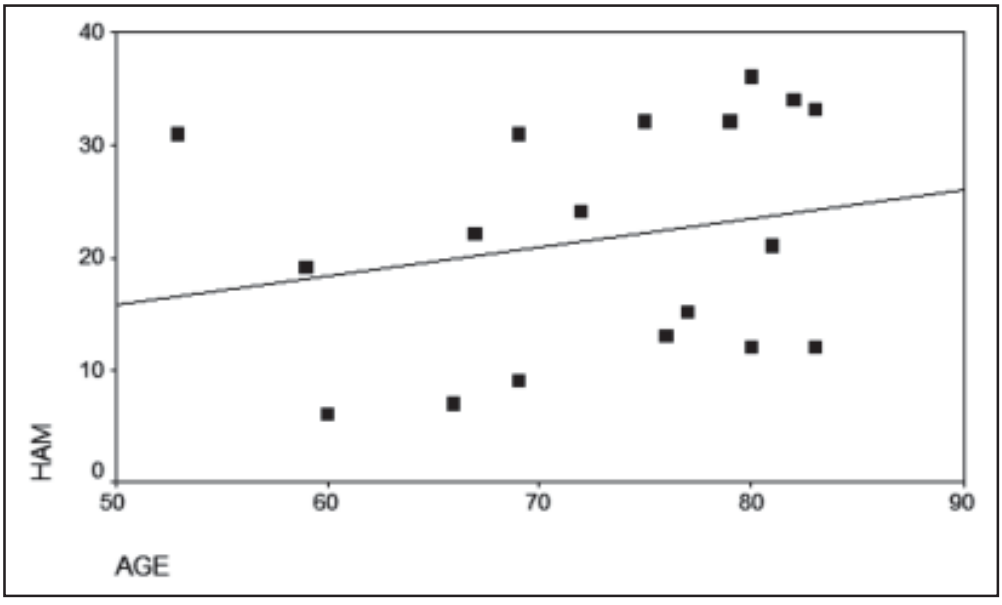

Figure 5. *Correlation of age and Hamilton depression rating score (R=0.221, p=0.378).*

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