

- repeated social psychotraumatic factors;
- depressive disorder and prolonged treatment with anticholinergic antidepressants;
- cerebral hypoxia, metabolic disfunction;
- ischemic cerebral vascular alterations.

A correlation was made between the observed risk factors with the rapidity in the evolution of the disease in identical treatment conditions (donepezil, rivastigmine).

**Results:** The evolution from MCI to AD of the patients in the lot showed three ways :

- rapid, under 1 year (6 patients, 20%);
- medium, over 2 years (15 patients, 50%);
- slow, over 3 years (9 patients, 30%);

For the entire lot the weight of risk factors was :

- psychotraumatic (50%);
- depression (67%);
- prolonged antidepressant treatment (57%);
- cerebral hypoxia and metabolic dysfunction (33%);
- vascular (63%).

**Conclusions:** The rhythm for settlement of cognitive deterioration is proportional with the number of risk factors.

The social impact at family level was significantly important in the forms with rapid evolution.

The rapid evolution automatically associates depression, prolonged antidepressant treatment, hypoxia and vascular component and requires profilactic strategies.

## P0021

Effect of memantine treatment at patients with moderate - severe Alzheimer's disease treated with Donepezil

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**Objective:** To investigate the behavioral and cognitive effects of memantine in moderate to severe patients with Alzheimer disease receiving donepezil.

**Method:** Study was a 24 weeks prospective, randomized, parallel group. 43 patients were enrolled in the study, 21 continued treatment with donepezil and 22 were randomized to donepezil and memantine treatment. Patients were at least 50 years old, receiving ongoing therapy with donepezil for at least 6 months (10 mg / day). Average age for both groups was 72.5 years. There were no significant imbalances between the treatment groups in demographic and baseline clinical characteristics. Cognitive, ADL, and global measures were collected at baseline and at the end of weeks 4, 8, 12, 18 and 24. Behavioral measures were obtained at baseline, at the end of week 12 and at week 24. Mean baseline MMSE scores were 15.2 for donepezil group and 14.9 for donepezil – memantine group. Mean baseline NPI scores were of 15.8 for the donepezil group and 16.4 for the donepezil – memantine group.

**Results:** Patients treated with donepezil – memantine had significantly lower NPI total scores than patients treated only with donepezil. Analyses of the 12 NPI domains revealed significant effects in favor of memantine on agitation / aggression, eating / appetite, and irritability / lability. Memantine - treated patients showed significantly less deterioration in their functionality. The Severe Impairment Battery showed significant differences favoring memantine – donepezil group.

**Conclusion:** Treatment with memantine was well tolerated and reduced agitation / aggression, irritability, and appetite eating disturbances.

## P0022

The role of proportion of cerebrospinal fluid total Tau-protein and phosphorylated Tau-protein levels in differential diagnosis of CJD

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**Background and Aims:** Diagnosis of Creutzfeldt-Jacob disease (CJD) is based on typical clinical features and can be supported by detection of 14-3-3 protein in the cerebrospinal fluid (CSF).

Present study suggests the importance of investigating the ratio between CSF total tau-protein and CSF phosphorylated tau-protein in differentiating CJD from other dementias.

**Methods:** Thirty-one patients with Alzheimer disease (AD) of Frontotemporal dementia (FTD) and four patients with definitive diagnosis of Creutzfeldt-Jacob disease were included into the study. All study subjects underwent MRI scan of the brain and extended neuropsychiatric examination at baseline to classify the patients as having AD or FTD. Results were compared with an age-matched cognitively normal control group. Tau-protein was analyzed using a commercially available ELISA and 14-3-3 protein was assessed by Western blotting. Three markers were put into comparison: total tau-protein (cutoff value of 355 pg/ml), phosphorylated tau-protein (cutoff value of 55 pg/ml), and beta amyloid (cutoff value of 458 pg/ml). The receiver operating characteristic (ROC) curve has been designed to achieve the best possible sensitivity and specificity for each marker.

**Results:** High ratio between CSF total tau-protein and CSF phosphorylated tau-protein has been found in all patients diagnosed by CJD, even in those with negative 14-3-3 protein blots results. Contrary, marker s analysis in patients with AD revealed the highest ratio between CSF beta amyloid and CSF phosphorylated tau-protein levels.

**Conclusions:** CSF tau-protein and phosphorylated tau-protein are valuable diagnostic biomarkers for CJD, especially in patients with negative 14-3-3 protein findings.

## P0023

The new standard computerized reading span test and the early detection of dementia

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**Background and Aims:** The new standard computerized reading span test (RST), which is a complex verbal working memory test, was tested.

**Methods:** Sixty native Dutch speakers, divided over four different groups (average age of 20, 26, 51, 75), entered the study.