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

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The selection of the participants was based on strict (clinical) criteria. A comparison was made between the 4 different age groups with respect to their verbal working memory capacity. The new standard computerized RST (Van den Noort et al., 2006a; 2008) was used.

Results: In this study, in line with previous aging studies, a significant decrease in verbal working memory capacity over time and a significant slowing down in mental processing were found. In addition, it was found that older adults made significantly more intrusion errors than young adults thereby confirming the inhibition theory (Hasher & Zacks, 1988). The analysis of the memory-pattern showed a clear recency-effect for the young-, but not for the old adults. Interestingly, the results of this study show that there are larger age-related effects in verbal working memory span than was expected on the basis of aging theories so far (Van den Noort et al., 2006b).

Conclusions: The new standard computerized RST (Van den Noort et al., 2006a; 2008) is a suitable complex verbal working memory test that could be used for clinical applications, for instance, for the early detection of dementia. This is important since most psychological tests so far are not sensitive enough to detect this early deterioration.

P0024

Alzheimer dementia associated cognitive and non-cognitive symptoms evolution during Donepezil treatment

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Background: Alzheimer Dementia (AD) is known as the most common cause of degenerative dementias that decrease patient life expectancy, quality of life and increase caregivers burden. **Objective:** To determine the evolution of cognitive and non-cognitive symptoms under donepezil treatment and to evaluate the impact of these symptoms evolution over the caregivers.

Methods: This prospective, open-label, trial included a group of 56 patients, 34 male and 22 female, mean age 72.4, diagnosed with AD according to DSM-IV-TR criteria. Patients received either donepezil (n= 30) or 1400 UI/day mean dose of vitamin E (n=26). We evaluated these patients monthly during 1 year using Mini-Mental State Examination (MMSE), AD Assessment Scale (ADAS), Hamilton Depression Rating Scale (HAMD)-17 items, Brief Psychiatric Rating Scale (BPRS)- 18 items, Global Assessment of Functioning Scale (GAF), Burden Interview (BI).

Results: Patients presented significant better evolution under donepezil on cognitive symptoms as scores evolution on ADAS-Cognitive behavior subscale (+1.5+/-0.2 vs. +10.4+/-0.8, $p<0.0001$) and MMSE (-0.8+/-0.2 vs. −7.7+/-0.4, $p<0.0001$) reflected. The non-cognitive symptoms evolution was also better under donepezil treatment, as the ADAS-Noncognitive behavior subscale (+2.6+/-0.4 vs. +8.2+/-0.7, $p<0.0001$), HAMD (increases of 4.5 vs. 8.2, $p<0.001$) and BPRS (increases of 6.7 vs.14.2, $p<0.0001$) reflected. The evolution of GAF was better in the donepezil group (-10.5 vs. −27.5, $p<0.0001$) and the burden of caregivers was significant less in the same group (+10.2 vs. +30.8 on BI, $p<0.0001$).

Conclusion: Donepezil is efficient in controlling both cognitive and non-cognitive symptoms in mild to moderate AD and therefore it decreases also the caregivers burden.

Poster Session II: Antidepressants

P0025

Serotonin syndrome resulting from switching antidepressants in a patient with chronic pain. A case report

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Background: Serotonin syndrome is a disorder caused by drug induced excess of intra-synaptic 5-hydroxytryptamine (5-HT). Combination of drugs with different mechanisms of action is the most common cause of the reaction.

Aims: To report a case of serotonin syndrome in order to underline the interactions between antidepressant and pain relief medication.

Methods: Case study and description of a patient treated in outpatient clinic.

Results: A 48 year old gentleman was referred to a community mental health team for review of his depressive disorder and medication. The patient had a 15 year history of recurrent depressive disorder and a 10 year history of chronic back pain and migraine. The patient had been on medication for both conditions requiring frequent changes in drugs and doses. A recent episode of depression was managed by changing from sertraline to venlafaxine. His pain relief medication included sumatriptan and tramadol. He soon experienced agitation, confusion, restlessness, dry mouth, and sweatiness. The symptoms worsened for 10 days until the patient stopped venlafaxine and returned to sertraline.

Conclusions: In patients with chronic pain and depression a detailed drug history and awareness from clinicians to the risk of serotonin syndrome are vital due to potentially fatal complications.

P0026

The effect of acute and chronic Citalopram on response inhibition and contextual information processing in healthy males

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Background: Selective serotonin reuptake inhibitors (SSRIs) are thought to exert their therapeutic action through increased serotonergic neurotransmission and hippocampal neurogenesis. Both of these processes may also contribute to the disinhibiting effects of SSRIs currently considered to contribute to potential risk of suicide or self-harm.

Methods: This study examined the acute (3 hours) and chronic (28 days) effects of citalopram administration on response inhibition and contextual processing (a hippocampal related function). Twenty healthy male volunteers were randomised to either placebo or 20 mg of oral citalopram for 28 days in a double blind design. Response inhibition was measured with the degraded symbol continuous

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