

included somnolence (26%), accidental injury (25%), and rash (22%).

**Conclusion:** These data suggest that olanzapine is an effective, generally safe, and well-tolerated long-term treatment for psychotic symptoms and behavioral disturbances in elderly patients with Alzheimer's dementia.

### P01.101

#### POSSIBLE MECHANISMS FOR THE EFFICACY OF OLANZAPINE IN PREVENTING RELAPSE IN SCHIZOPHRENIA

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Conventional antipsychotic agents clearly prevent relapse in schizophrenia compared to placebo. All conventional antipsychotic agents have equal efficacy in relapse prevention; however, the limitations of conventional antipsychotic agents in the prevention of relapse include limited efficacy (i.e., partial response, treatment-resistance), tolerance to the antipsychotic effect, and adverse events that may lead to non-compliance. The novel antipsychotic agent olanzapine is superior to haloperidol and risperidone in the maintenance treatment of schizophrenia, most likely owing to its unique pharmacological profile. Relapse in schizophrenia is multidetermined, such that it may be illness-related (dopamine receptor upregulation with breakthrough symptoms), pharmacological (development of tolerance, or resulting from unsuccessful antipsychotic switch), patient-related (non-compliance due to antipsychotic-induced adverse events or lack of insight), or psychosocial (susceptibility to environmental stressors). With respect to each of these parameters, we have examined historical data and present possible mechanisms that could explain the superior efficacy of olanzapine compared to conventional antipsychotic agents in preventing relapse. In addition, we explore the possibility that the effectiveness of olanzapine in preventing relapse may be generalizable to other disorders, such as mood stabilization in bipolar disorder.

### P01.102

#### OLANZAPINE IN THE PREVENTION OF PSYCHOSIS AMONG NURSING HOME PATIENTS WITH BEHAVIORAL DISTURBANCES ASSOCIATED WITH ALZHEIMER'S DISEASE

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**Introduction:** A multicenter study was conducted to determine the efficacy and safety of olanzapine in treating psychotic symptoms and behavioral disturbances associated with Alzheimer's disease. This analysis was performed post hoc among nursing home patients who did not yet have delusions or hallucinations to assess the appearance of such psychotic symptoms.

**Methods:** Onset of psychotic symptoms was determined with the NPI/NH during treatment with either placebo or a fixed dose of 5, 10, or 15 mg/day of olanzapine for up to 6 weeks of therapy.

**Results:** Among patients entering the study with neither hallucinations nor delusions ( $n = 76$ ), there was a significantly greater increase in development of these psychotic symptoms among placebo patients compared to olanzapine patients ( $p = .006$ ). For the larger subset of patients without hallucinations at baseline ( $n = 155$ ), significantly fewer olanzapine-treated patients (7.4%) developed hallucinations compared to placebo (21.9%,  $p = .045$ ). Olanzapine had a favorable safety profile in each symptom-subgroup of

patients. Changes in extrapyramidal symptoms, labs, and vital signs were not statistically or clinically significantly different for patients treated with olanzapine compared to placebo.

**Conclusion:** These results suggest that olanzapine may be a safe and well-tolerated antipsychotic that may benefit patients with Alzheimer's dementia by reducing the appearance of psychotic symptoms.

### P01.103

#### ACTIVITY ASSESSMENTS OF SUPEROXIDE DISMUTASE, GLUTATHIONE REDUCTASE AND GLUTATHIONE PEROXIDASE IN THE RED BLOOD CELLS OF ALZHEIMER PATIENT'S

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The cause of pathological changes in Alzheimers disease (AD) is a disturbance in the equilibrium between the reactive forms of oxygen and the antioxidative mechanisms. One of the possible explanation of this oxidative stress is a perturbation in antioxidant systems, especially enzymatic systems. The aim of our study was the assessment of basic antioxidant enzymes, activity in erythrocytes of AD as compared with non-Alzheimer dementia patients and to find out if there was a possible connection of it with the stage of the disease and the patients age. The study covered 40 AD patients in different stages of the disease, 20 patients with vascular dementia and 20 patients with mixed dementia. The control group was composed of 18 persons with normal cognitive functions. All the patients were subjected to tests on superoxide dismutase - SOD-1 (by Misra and Fridovich's method), on glutathione peroxidase (by Little and O'Brian's method) and on glutathione reductase by spectrophotometric method (after Ellman), for the first time prior to instituting therapy and then every four months during a year's treatment. In the treatment use was made of acetylcholinesterase inhibitors (Rivastigmine, Donepezil) as well as vasoactive drugs (eg. Vinpocetine). With a view of assessing the dynamics of the disease-apart from a routine psychiatric examination, psychometric tests were employed: MMSE, CGI (Clinical Global Impression) and Hachinski's scale. A statistically significant increase ( $p < 0.05$ ) was noted in the activity of peroxidase and glutathione reductase while there was a reduction in the activity of SOD-1 ( $p < 0.001$ ) in the early stages of AD and a reduction in the activity of all the enzymes in the advanced stage of the disease. No activity fluctuation was noted in non-Alzheimer dementia nor any connection of it with the patient's age. The obtained results may indicate that a substantial role is played by the disturbed pro-oxidation - anti-oxidation system in the development of AD and the progression of the clinical state.

### P01.104

#### RELATION OF SUICIDAL BEHAVIOUR, CENTRAL SEROTONERGIC SYSTEM AND TEMPERAMENT AND CHARACTER INVENTORY

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It is well established that reduced central serotonin has been implicated in suicidal behaviour and that suicidal behaviour has neurobiological determinants independent of the psychiatric illnesses with which it is associated.

The Temperament and Character Inventory (TCI) by C.R. Cloninger, a comprehensive inventory of personality was developed