57.2. Females with SA differentiate from those with SI (p = .029) in RE, lower in SI (in males no differences were found).

Conclusions: Patients with suicidal activity showed a lower QoL than other psychiatric inpatients. Patients with SA are close similar to those with SI in their QoL profile.

P01.97.
HEALTH STATUS AND ELDERLY PEOPLE

P.A. Sáiz*, Ma.P. González, J.Ma. Fernández, S. Martínez, Ma.T. Bascarán, J. Bobes. *Department of Psychiatry, University of Oviedo Faculty of Medicine, 6: Julián Clavería, 3 floor, 33006 Oviedo, Asturias, Spain*

Objective: To evaluate the health status of an elderly rural population (65 years and over).

Subjects and Method: 265 elderly male and female from Proaza (Asturias, Northern Spain) were interviewed between July 1998 and September 1999.

Evaluation: Mini Mental State Examination Spanish version (MMSE), CAGE, General Health Questionnaire 28 items (GHQ-28), and Geriatric Depression Scale-15 (GDS).

Results: Sociodemographic data.- Mean age (SD): 76.2 (6.69), males (39.6%), married (48.3%) [widowed: 16.0% males vs 42.5% females, p = .000], living with family (73.6%) [87.6% males vs 64.4% females; p = .000], elementary education (91.7%). Clinical data.- physical illness (96.6%), with treatment (84.2%), mental illness (26.0%), with treatment (15.8%), MMSE < 18 (8.7%) (those subjects who scored lower than 18 points -indicative of severe cognitive impairment- were excluded from the rest of the evaluation), CAGE > 1 (3.3%) [8.3% males vs 0% females, p = .000], alcohol consumption (g/d) [13.31 (30.09)] [25.83 (35.32) males vs 5.07 (22.69) females, p = .000], GHQ > 6 (13.6%), GDS > 5 (23.1%) [12.5% males vs 30.1% females, p = .001].

Conclusions: High prevalence of physical impairment, a moderate prevalence of mental and cognitive impairment, and low alcohol consumption are present in our study population.

P01.98
APOLIPOPROTEIN E GENOTYPE AND SCHIZOPHRENIA

P.A. Sáiz*, M. González-Quiros, V. Alvárez, E. Coto, J.Ma. Fernández, M. Bousoño. *Department of Psychiatry, University of Oviedo Faculty of Medicine, 6: Julián Clavería, 3 floor, 33006 Oviedo, Asturias, Spain*

Objective: To investigate the potential association between apolipoprotein E (ApoE) genotype and schizophrenia.

Patients and Method: We genotyped 63 schizophrenic outpatients (DSM-IV criteria) and 250 healthy volunteers (hospital staff and blood donors) from Asturias (Northern Spain).

The apoE genotypes (E2, E3, E4 - alleles) were determined after PCR amplification followed by digestion with CfoI, and the fragments were separated by electrophoresis on a 4% ethidium-bromide-stained agarose gel.

Results: We found no significant differences in allele frequencies between the two groups although an increase in the frequency of allele E4 was recorded in patients compared with controls (11.1% vs 6.2%, p = .086; OR = 1.89; 95% CI = 0.97–3.67). However, E4 carriers (E2E4, E3E4, E4E4) were at a higher frequency in the schizophrenic group than in controls (22.2% vs 12.0%, p = .059; OR = 2.09; 95% CI = 1.03–4.24).

Conclusions: Variation of the ApoE gene may play a role in the development of schizophrenic disorders. However, larger samples are necessary to confirm or reject the current data.

P01.99
SUICIDAL BEHAVIOUR AND THE TRYPTOPHAN HIDROXYLASE AND THE APOLIPOPROTEIN E GENES POLYMORPHISMS

P.A. Sáiz*, B. Morales, M. González-Quiros, V. Alvárez, E. Coto, J.Ma. Fernández, M. Bousoño. *Department of Psychiatry, University of Oviedo Faculty of Medicine, 6: Julián Clavería, 3 floor, 33006 Oviedo, Asturias, Spain*

Objective: To investigate the potential association between the tryptophan hidroxylase (TPH) and the apolipoprotein E (ApoE) gene polymorphisms and suicidal behaviour.

Patients and Method: We genotyped 23 parasuicidal patients (PP) and 311 healthy volunteers (hospital staff and blood donors) from Asturias (Northern Spain).The polymorphism of TPH gene (A218C) was determined after PCR amplification followed by digestion with NheI, and electrophoresis on a 2% agarose gel.The apoE genotypes (E2, E3, E4 - alleles) were determined after PCR amplification followed by digestion with CfoI, and electrophoresis on a 4% agarose gel.

Results: TPH gene polymorphism (A218C) genotype (PP and controls).- AA: 21.7%, 21.3%; AC: 47.8%, 45.9%; CC: 30.4%, 32.8% (p = 0.978). We found no significant differences in allele frequencies between the two groups (allele A.- PP: 45.7%, controls: 44.3%, p = 1.00; OR = 1.058; 95% CI = 0.53–2.09). ApoE genotypes were similar in both groups. We found no significant differences in allele frequencies between the two groups although an increase in the frequency of E4 carriers (E2E4, E3E4, E4E4) was recorded in PP compared with controls (13.0% vs 6.2%, p = 0.114; OR = 2.27; 95% CI = 0.89–5.76).

Conclusions: Polymorphic variations at the TPH and ApoE genes were not associated with an increased risk of parasuicidal behaviour in this study. However, larger samples are necessary to confirm or reject the current data.

P01.100
LONG-TERM EFFICACY OF OLANZAPINE IN THE CONTROL OF PSYCHOTIC AND BEHAVIORAL SYMPTOMS IN PATIENTS WITH ALZHEIMER'S DEMENTIA

J.S. Street*, W.S. Clark, B.E. Juliar, P.D. Feldman, D.L. Kadam, A. Breier. *Lilly Research Laboratories, Eli Lilly & Company, One Lilly Corporate Center, Indianapolis, IN 46219, USA*

Introduction: A multicenter study was conducted to determine long-term efficacy and safety of olanzapine in treating psychotic symptoms and behavioral disturbances associated with Alzheimer's disease.

Methods: Elderly nursing home patients (mean age: 83.1 years) with dementia (n = 137) who successfully completed a 6-week double-blind study entered an open-label phase of up to 18 weeks during which they received olanzapine (dose range: 5, 10, or 15 mg/day). Mean change in the sum of the Agitation/Aggression, Delusions, and Hallucinations items of the NPI/NH was used as the primary efficacy measure (Core Total).

Results: Following treatment with olanzapine, patients' scores improved significantly on the Core Total (mean, −7.55; SD = 8.53; p < .001), Total (mean, −17.85; SD = 23.72; p < .001), and 10 of the 13 individual item scores of the NPI/NH, including Occupational Disruptiveness (mean, −2.84; SD = 3.24; p < .001). Barnes Akathisia scores improved significantly from baseline (mean, −0.22; SD = 0.80; p = .002). Simpson-Angus and AIMS scores were not significantly changed. No significant changes occurred in patient ECGs, including QTc interval, nor in any other vital sign or in weight. Treatment-emergent symptoms

https://doi.org/10.1016/S0924-9338(00)94507-3 Published online by Cambridge University Press

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

B. Jones*, C.C. Taylor. *Lilly Research Laboratories, Eli Lilly & Company, One Lilly Corporate Center, Indianapolis, IN 46219, USA*

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

W.S. Clark*, J.S. Street, T.M. Sanger, P.D. Feldman, A. Breier. *Lilly Research Laboratories, Eli Lilly & Company, One Lilly Corporate Center, Indianapolis, IN 46219, USA*

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

J. Leszek*, A. Kiejna, B. Janicka, E. Trypka, R. Górna. *Wrocław University of Medicine Clinic of Psychiatry, Wrocław, Poland*

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 antioxidations, 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 glutatione 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 acetylocholinesterase 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

U. Itzlinger*, A. Heiden, J. Scharfetter, C. Gebhardt, P. Schüssler[1], K. Fuchs[1], W. Sieghart[1], S. Kasper, H. Aschauer. *Hospital, Department of General Psychiatry, Vienna; [1] University Hospital, Division of Biochemical Psychiatry, Vienna, Austria*

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

https://doi.org/10.1016/S0924-9338(00)94507-3 Published online by Cambridge University Press