FC02. Dementias and organic disorders

Chairs: W.S. Clark (USA), I. Bitter (H)

FC02.01

THE PATHOGENETIC ROLE OF DOPAMINE IN HIV-INDUCED CNS DISEASE

E. Koutsilieri*, S. Sopper, S. Czub, V. ter Meulen, P. Riederer. *Clinical Neurochemistry, Dept. Psychiatry, Würzburg, Germany*

Human immunodeficiency virus (HIV) infection is frequently associated with specific neurological symptoms. The neurological complications are characterized by cognitive impairement, behavioural abnormalities and motor disabilities that may mimic aspects of Parkinsonism. This syndrome presents predominantly as a subcortical dementia and HIV-positive cells and pathological changes in CNS are found primarily in dopamine-rich areas, the basal ganglia.

To study the role of the dopaminergic system in HIV infection we used the well-established simian immunodeficiency virus (SIV) infected rhesus monky model. This model is valuabe for the investigation of the pathogenesis of AIDS-related CNS disorders.

The study reports the involvement of the dopaminergic system in SIV infection, fascinating-novel results of dopaminergic substances in the development of SIV-induced CNS disease and reconsiders the current therapy.

FC02.02

EARLY AND DIFFERENTIAL DIAGNOSIS IN MILD COGNITIVE IMPAIRMENT, ALZHEIMER'S DISEASE AND DEPRESSION

U. Hegerl*, T. Frodl, K. Bürger, G. Juckel, H. Hampel, R. Engel. *Department of Psychiatry, Lundwig-Maximilians-University, 7 Nußbaumstr., 80336 Munich, Germany*

Introduction: To confirm the finding that P3b-amplitudes and P3a-latencies are affected in Alzheimer's disease (AD) and to evaluate the sensitivity of these P300 subcomponents for early diagnosis of AD and differential diagnosis between AD and depression.

Background: Due to recent advances in reliability as well as physiological validity of the P300 methodology, P300 parameters have become a promising tool for research in Alzheimer's disease (AD).

Methods: P300 was recorded within an oddball paradigm. Using an improved P300 method of dipole source analysis of P300, patients with Alzheimer's disease (AD; N = 26), Memory complainers (MC; N = 39), Mild cognitive impairment (MCI; N = 26); Major Depression MD; N = 11) and Healthy Controls (HC; N = 43) were analyzed. Cognitive testing was performed with the Consortium to Establish a Registry for Alzheimer's Disease (CERAD).

Results: Patients with AD showed smaller P3b-amplitudes and prolonged P3a-latencies compared to HC and patients with MD. Sensitivity was 88.5% to detect patients with AD in comparison to MD (specificity 72.7%). P3b-amplitudes were smaller in AD than MC or MCI, whereas P3a-latencies were prolonged for MC in comparison to HC.

Conclusion: P3b-amplitudes and P3a-latencies offer additional clinical information for the differentiation of AD from MD. Moreover, P300 might be interesting as a marker for patients with cognitive disturbances, who might convert to AD.

FC02.03

THYROID FUNCTION OF ELDERLY PATIENTS WITH MENTAL DISORDERS

C.A. de Mendonca Lima. *Service Universitaire de Psychogériatrie CH-1008 Prilly, Switzerland*

Introduction: Thyroid disorders are very frequent in old persons as well in the course of several mental disorders. It is important to detect eventual thyroid disorders to treat correctly the mental disorder. The main aim of this preliminary study is to analyse the thyroid function of a sample of elderly patients with mental disorders at the moment of admission at the Geriatric Psychiatry Day Hospital (DH), Lausanne, and compare it with their respective mental problem and nutritional status.

Material and Methods: Thyroid function (TSH, FT4, FT3) of 167 patients successively admitted at DH was studied (33 men, 134 women; mean age = 75.70 +/– 6.80). Some parameters such age, sex, cognitive status (MMS), intensity of depression (HDRS), nutritional status (MNA) were considered. Patients were divided in 4 groups according to their respective mental problem: A1, with cognitive impairment and depressive symptoms (n = 39); A2, without cognitive impairment but with depression (n = 69); B1, with dementia and without depressive symptoms (n = 18); B2 without cognitive impairment and without depressive symptoms (n = 41).

Results: Age was correlated to FT4 ($r = 0.37$, $p < 0.01$) and to the intensity of depression ($r = 0.20$, $p < 0.05$). TSH was only correlated to FT4 ($r = -0.30$, $p < 0.001$) and to the nutritional status ($r = 0.25$, $p < 0.02$). The group B2 had lower, but not significant, TSH, FT4 and FT3 plasmatic levels than other than other 3 groups.

Discussion et Conclusion: The absence of significant difference of thyroid function among the 4 groups could be explained by the difference size of the 4 groups but the lower plasmatic levels of thyroid hormones at the group with dementia is suggestive. More studies with better methodology are necessary to explore these results.

FC02.04

REDUCTION OF PSYCHOTIC SYMPTOMS IN PATIENTS WITH LEWY BODY-LIKE SYMPTOMS TREATED WITH OLANZAPINE

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

Introduction: A post hoc analysis was performed on the results of a double-blind, 6-week study of nursing home patients (n = 206) with dementia to determine the efficacy and safety of olanzapine in reducing psychosis and behavioral disturbances.

Methods: The effects of 5, 10, and 15 mg/day olanzapine were assessed relative to placebo in patients who had possible Lewy body dementia (n = 29), determined by a nonzero score on the Simpson-Angus Scale and a nonzero score on the Hallucinations item of the NPI/NH. All data are reported as mean changes.

Results: Patients receiving 5 mg/day of olanzapine improved by 82.9% on the NPI/NH Delusions and Hallucinations combined score, compared to 17.4% for placebo (p = .015). On the Delusions item, olanzapine-treated patients improved by 77.8%, compared to 29.0% for placebo (p = .012). Olanzapine-treated patients showed 85.7% improvement in Occupational Disruptiveness related to the NPI/NH Delusions and Hallucinations items. Placebo-treated patients showed only 14.0% improvement (p = .002). Significant improvement (p = .042) was also found on the Mini-Mental State Exam for olanzapine-treated patients (2.4-point improvement),