

hypoconnectivity coincided with the cognitive deficit (measured by Luria tests), developing in these patients during the two years after the first episode. More profound functional disconnection of the hemispheres in chronic schizophrenic patients accompanied the progressing of the process, these disconnection being partly reflected in the name «schizoz».

### P08.02

Is critical flicker fusion a trait marker?

F. Cavaglia\*, F. Simões do Couto, A. Matos-Pires, R. Cabrita, F. Arriaga. *FML, ISCS-Sul, Lisbon, Portugal*

**Objectives:** Critical Flicker Fusion (CFF) has essentially been used as a cognitive function measure. However, its interest as a trait marker seems a bit forgotten. Our study tries to explore this topic.

**Methods:** Eight F-16 jet pilots were recruited and their cognitive function was thoroughly evaluated before and after a cognitive activation task. The task comprised a 90 minute sequence of emergencies in a flight simulator. The following evaluations were performed: Spatial Recall Test (SRT), Paced Auditory Serial Addition Test (PASAT), Leeds Psychomotor Test Battery (which provides choice reaction times and CFF) and the Vienna Test Battery (VTB). The Wilcoxon test and the Pearson's correlation were employed.

**Results:** The overall measures varied quite differently with one exception – CFF. The differences were not significant (CFF before: mean: 28.07±2.90; CFF after: mean: 28.07±2.74). The correlation obtained was  $r=0.953$  which implies a shared variance of 90.8%.

**Conclusions:** This result indicates that each pilot provided a very similar result in both evaluations. Our study could reflect a possible trait marker property for CFF, although new studies are needed to better clarify our findings. That does not mean that CFF is not vulnerable to exogenous factors like psychotropic drugs.

### P08.03

Emotion recognition deficit and cognition in schizophrenia

G. Sachs\*, D. Steger, I. Kryspin-Exner, H. Katschnig. *Department of Psychiatry, University of Vienna, Austria*

**Objectives:** Previous investigations have found impaired recognition of facial affect in schizophrenia. Controversy exists as to whether this impairment represents a specific emotion recognition deficit or whether impaired processing of emotion is part of a general cognitive decline. We compared patients and healthy control subjects on computerized tasks of emotion. Emotion processing deficits were correlated with neurocognitive performance.

**Methods:** 40 patients (25 male, 15 female) with schizophrenia (DSM-IV, treated with atypical neuroleptics) and 40 healthy volunteers, matched for age and gender, underwent computerized tasks of emotion (Penn's Emotion Acuity-, Differentiation- and Facial Memory Tests); all participants were assessed neuropsychologically.

**Results:** Patients with schizophrenia performed worse than control subjects on emotion recognition. We found higher error rates for identification of emotion in happy faces ( $p<0.02$ ) and female faces ( $p<0.01$ ) and for differentiation of sad versus happy faces ( $p<0.001$ ). In schizophrenic patients, emotion recognition correlated with attention ( $p<0.01$ ) and executive function ( $p<0.001$ ).

**Conclusions:** The study did not reveal a specific deficit for emotion recognition in schizophrenia. These findings lend support to the concept that emotion recognition is associated in schizophrenia with key cognitive deficits.

### P08.04

Does antidepressant therapy improve cognitive function in elderly depressed patients?

D. Coffey<sup>1\*</sup>, T. Oxman<sup>1</sup>, L. Jenkyn<sup>1</sup>, M. Doraiswamy<sup>2</sup>, T. Burt<sup>3</sup>, R. Fayyad<sup>3</sup>, C. Clary<sup>3</sup>. <sup>1</sup>Dartmouth Hitchcock Medical Center, Department of Psychiatry, Lebanon; <sup>2</sup>Duke Medical Center, Durham; <sup>3</sup>Pfizer Inc., USA

**Objectives:** Depression in late life is often associated with cognitive and psychomotor deficits, and may be a risk factor for subsequent dementia. In addition, depression is frequently comorbid with dementia. Despite these data, there is a relative paucity of well-controlled studies of adequate duration comparing different antidepressant strategies in elderly depressed patients with and without cognitive impairment. In this report, we used data from two multicenter trials to analyze the effects of antidepressant therapy on cognitive functioning in late life depression.

**Methods:** 446 subjects 60 years or older (75% <sup>3</sup> 65 years), with DSM-III-R major depression participated in two randomized multicenter trials of 12 week duration. The first compared sertraline (range 50–100 mg) to fluoxetine (20–40 mg) and the second compared sertraline (range 50–150 mg) to nortriptyline (25–100 mg). Cognitive assessments included a Shopping List Task (SLT), the Digit Symbol Substitution Test (DSST), and the Mini-Mental State Exam (MMSE).

**Results:** Sertraline and fluoxetine, and sertraline and nortriptyline were equally efficacious in reducing depressive symptoms in the primary efficacy analyses. Treatment with sertraline had more positive effects on verbal learning and recall as well as on visual tracking, coding and motor performance than nortriptyline ( $p < 0.05$  for all comparisons).

**Conclusions:** These data will be discussed in relation to the growing links between late-life depression and dementia.

## P09. Comorbidity in psychiatry

### P09.01

Dementia with delirium caused by vitamin B12 deficiency

V. Lerner<sup>1\*</sup>, M. Kanevsky<sup>2</sup>. <sup>1</sup>Faculty of Medical Science Ben Gurion University of the Negev, Be'er Sheva; <sup>2</sup>Mental Health Center, Be'er Sheva, Israel

An association of different psychiatric and neurological symptoms with vitamin B12 deficiency is well accepted. Vitamin B12 is a key component in the catabolism of monoamines. B12 deficiency is associated with various neuropsychiatric disorders and may be more frequent in psychiatric inpatients. Different investigators have discussed the involvement of B12 deficiency in psychiatric manifestations mainly among elderly people. The authors describe a case report of relatively young patient (52-year-old) with organic psychosis secondary to vitamin B12 deficiency. No clinical features and laboratory data of anemia were observed. The electroencephalogram revealed generalized slow-wave activity. Psychotic symptoms were resolved only with B12 and folate replacement via monthly B12 injections, and his electroencephalographic reading returned to the normal limits. The four-months follow-up after the patient's discharge from the hospital revealed stability in his mental status. It is noted that organic mental changes were reversible with B12 and folate replacement. The authors propose that determination of serum vitamin B12 and folic acid levels should be recommended as routine screening in all new admissions of psychiatric patients regardless to their age and previous state of health.