of stressful life events on severity. The biological phenotype responsible for these effects remains to be elucidated

FC01.05

DAT binding and psychopathological features in depressed patients

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Introduction: Many evidences stress the implication of dopamine systems in the pathophysiology of depression. Currently, few and uncertain results are available on pre-synaptic dopaminergic dysfunction during depression. Our aim was to assess dopamine transporter (DAT) density in Major Depressive Disorder (MDD) with marked psychomotor retardation or anhedonia using 123I-FP-CIT SPET.

Methods: 15 drug-free patients (F/M=8/7, mean age=44.6 SD=12.6 years) with MDD according to DSM-IV-R criteria, were enrolled for:

1. Psychometric assessment (of depression, anxiety, anhedonia and psychomotor impairment using Hamilton Depression Rating Scale, Hamilton Anxiety Rating Scale, Snaith-Hamilton Pleasure Scale and Depression Retardation Rating Scale);
2. DAT measurement with 123I-FP-CIT SPET.

14 healthy subjects, comparable for gender and age, formed the control group.

Results: Patients had moderate-to-severe depression. They showed a significant decrease in DAT density in whole striatum bilaterally compared to controls. Furthermore, mean 123I-FP-CIT uptake ratios were significantly lower in caudate and putamen bilaterally. Patients were then divided into two subgroups: 7 had a relevant psychomotor retardation without anhedonia; 8 had severe anhedonia without retardation. The psychomotor retardation group showed significantly lower 123I-FP-CIT uptake ratios in left putamen compared to the anhedonic group. An inverse correlation between DAT density in left putamen and retardation scores were observed.

Conclusion: Present results confirm a decrease of DAT binding in MDD. Low DAT availability could represent a compensatory mechanism following dopamine reduction. Moreover, DAT reduction seems to be related more to retardation than anhedonic features, in agreement with previous PET imaging findings.

FC01.06

Long-term monitoring of HRV and activitiy with a new acquisition system: Preliminary data from a pilotstudy with depressive inpatients

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Background: Variations of circadian activity profiles and sleep patterns are altered in various neurospsychiatric disorders. In this context, changes in heart rate (HR), -variability (HRV) and related parameters have been reported, too. However, data situation is presently heterogeneous and nonstandard-ized. As long-term evaluation may provide more valuable information, applicability and data us-ability of a new data acquisition system was tested in patients with major depression.

Methods: The course of a depressive episode in inpatients was assessed by standard psychometric in-struments. ECG and motor activity were recorded continuously with a new wearable sensor sys-tem (EP04106001.3) consisting of a textile with three electrodes for 1-lead ECG recordings, and an electronic module (2D-accelerometer, microcontroller, memory, rechargeable batteries, Bluetooth unit) to be attached to the waistband of standard underpants.

Results: ECG signal quality highly depended on physical activity, but sufficient data quality was obtained during sleep. From the accelerometer signal, time in bed and movement time were identifiable. Preliminary data of patients (n=15) versus healthy controls (n=9) showed a reduction of HRV in several time domain parameters, high frequency (HF) power, and daytime activity (24h/day, mean 8 weeks).

Conclusion: This first pilot study demonstrates alterations of physiological parameters potentially relevant for depression, with continuous monitoring of inpatient treatment period. Facing long-term monitoring the device proved to be robust and safe and might provide a psychobiological profile of the clini-cal course of depression, useful for evaluation of disorder and therapy.

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FC01.07

Medical comorbidities in patients with recurrent depressive disorder

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Objective: The course and outcome of depression could be influenced by several clinical characteristics, medical comorbidity being one of them. Our main purpose was to identify the medical comorbidities in depressive clinical population and to compare them with the figures encountered in other diagnostic categories.

Material and method: We performed a retrospective study on 248 subjects (studied sample) admitted in our Clinic during 2001 – 2004 with a diagnosis of Recurrent depressive disorder, accordingly with ICD-10. There were collected several demographic and clinical data. Also, it was done two comparable control samples, one with persistent delusional disorder (N=60) and the other with Bipolar disorder (N=44). All data were statistical analyzed.

Results: In our studied sample, we found a highly statistical significant difference regarding cardiovascular diseases ($p<0.001$), digestive ($p<0.001$) and musculoskeletal disease ($p<0.001$), depending on the time elapsed form the onset of depression. Interestingly, only the digestive diseases were not correlated with the age. Also, comparatively with control samples there was a statistical significant difference regarding cardiovascular diseases (the figures were influenced by age and gender in sense that male aged subjects were more affected). The endocrine diseases were more prevalent in Bipolar sample while in Persistent delusional sample we found more nephrological and urological diseases.

Conclusion: We consider that depressive population is more vulnerable to develop medical comorbidities. In consequence, the clinicians must pay more attention on physical health status in depressive patients and to take into account it in therapeutically management of these patients.

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