P41.02
24 hour-HRV in relation with weight and BMI in 92 mentally healthy probands

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Heart rate variability (HRV) has been shown to be altered by a number of psychiatric conditions and therapeutic interventions, psychopharmacological as well as non-pharmacological (J. Affect. Disord. 1994;32:271–275; Psychiat. Res. 1995;56:279–287; Pharmacopsychiat. 2001;34:111–113).

However, little is known on the relationship between body weight, body mass index (BMI), and body composition in different age groups on the one hand and HRV on the other. As many psychopharmacological compounds are known to influence body weight and related parameters (Am. J. Psychiat. 2001;158:1719–1722), this is an important issue to study.

The present investigation was performed in order to establish the relationship between body weight, BMI, age, and 24 hour HRV. Therefore, 92 mentally healthy probands (33 men, 59 women ranging in age from 16 to 89 years and in BMI from 17 to 38) were examined by 24 hour HRV. Exclusion criteria were smoking, cardiovascular diseases, diabetes or other medical disorders and the use of any medication or illegal drugs.

SDNN decreased significantly with increasing BMI indicating a disturbed parasympathetic regulation of heart rate.

P41.03
Behavioral activation or inhibition during emotional stress

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Background: According to the defence-defeat model of stress, the defence reaction is associated with behavioral activation and the defeat reaction with behavioral inhibition. The aim of this study was see whether behavioral activation or inhibition following emotional stress would be associated to different patterns of psychological and behavioral symptoms among young females.

Methods: A random sample of 726 females, aged 18–23, responded on a self-administered questionnaire. Groups were defined by the given response on an item addressing an increased, unchanged or decreased drive to physical activity during periods of emotional stress. Groups were compared regarding the results on various items.

Results: Subjects reporting stress-induced behavioral activation reported significantly higher amounts of habitual physical exercise and activity than did compared groups. They were also more prone to engage in compensatory activities against overweight. Conversely, subjects reporting stress-induced behavioral inhibition during emotional stress reported more frequent depressive symptoms.

Conclusions: Stress-induced changes of behavioral activity seem to be associated with psychological and behavioral symptoms among young females according to a certain pattern.

P41.04
P3 and negative disorders scores in patients with schizophrenia

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Present work assessed the relationship between auditory P3 and the level of negative disorders. 25 patients with schizophrenia (age 18–40 years) were examined in clinically stabilized state or in remission. Negative disorders were evaluated by PANSS (for all subjects) and SANS (for 13 subjects). Auditory EPs were recorded in the standard oddball paradigm. There were not significant correlations between P3 amplitude or latency and the scores of PANSS. At the same time P3 amplitude (mostly in central and parietal leads) negatively correlated with SANS scores of "unchanging facial expression", "paucity of expressive gestures", "poor eye contact", "lack of vocal infections", "global rating of affective flattening", "poverty of speech", "global rating of alogia", "grooming and hygiene", "recreational interests and activities". P3 latency positively correlated with the score of "decreased spontaneous movements". Thus, the findings do show the correlations between different aspects of negative disorders (mostly of affective flattening and alogia) and neurophysiological parameter (P3) which is associated with cognitive functions of human brain.

P41.05
Psychopathology of schizophrenia and gating of auditory evoked potentials P50

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Background: Diminished gating of auditory evoked potentials P50 is neurophysiological indication of elementary deficits in sensory processing. The sensory disturbance is probably one from reasons of formation of symptoms of schizophrenia.

Object: Testing the relationship of the P50 phenomenon with psychopatological measurments of schizophrenia.

Methods: The tools for evaluating psychopatological measurments: Positive And Negative Syndrom Scale (PANSS) and Clinical Assessment Schizophrenic Syndrom (CASS) were used at 44 ICD-10 diagnosed schizophrenic patients compared to 44 healthy subjects. You studied the response to auditory P50 in coditioning-testing paradigm. The possible relationship of diminished gating of auditory P50 to measurment: disorganization, deformation, deficit, was assessed.

Results: There was revealed 61% increasing of auditory P50 after testing stimulus in patient group compared to 56% decreasing in control group (p=0,03;t=2,11). Relationship of change of amplitude auditory P50 to schizophrenic measurments (disorganization, deficit, deformation) evaluated with PANSS, was significant: p=0.018, p=0.021, p=0.007, respectively; evaluated with CASS, was significant too: p=0.001, p=0.03, p=0.005, respectively.

Conclusions: There is significant correlation among impairment of gating of auditory P50 and with psychopatological measurments of schizophrenia.