the cardiovascular safety of a psychopharmacological agent is its potential influence on autonomic neurocardial function (ANF).

Methods: We therefore routinely evaluate ANF assessed by serial standardised measurements of heart rate variability (HRV; 1) in schizophrenics, who are treated with Sertindole (baseline, 4 mg, 8 mg, final dosage).

Results: Preliminary data obtained from the Sertindole treated group demonstrated a reduction of the LF/HF power ratio suggesting a decrease of sympathetic arousal. Moreover, there were no pathological reductions in those variables known to reflect parasympathetic activity (e.g. CVr, RMSSDr or high frequency power).

Conclusion: The integrity of the autonomic nervous system (ANS) may be important in the prevention of cardiac arrhythmia and reduced vagal efferent activity may favour cardiac electrical instability. Indeed, survival studies of patients with diabetes, chronic alcoholism or myocardial infarction indicate a higher mortality rate due to cardiovascular causes in those patients with cardiac vagal dysfunction. Sertindole only has a low or negligible affinity for alpha-2-adrenergic or cholinergic receptors and, thus, may not cause substantial disturbances in ANS functioning. Our preliminary clinical data are in accordance with these theoretical implications.

(1) Task Force Report of the European Society of Cardiology. Heart rate variability. Circulation 1996; 93: 1043-1065.

## Wed-P80

OBSERVATION OF PHYSICAL DEVELOPMENT INHIBITION OF CHILDREN TREATED IN PSYCHIATRIC HOSPITAL

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The purpose of the present study was to investigate the physical development of schoolboys treated in psychiatric hospital.

For investigation were chosen schoolboys, who were treated as inpatients in Tartu University Psychiatric Hospital from year 1994 to 1997. All boys were investigated during their being in children's ward. They had different nonpsychotic disorders diagnosed according to ICD-10 criteria.

Anthropological investigation was carried out by rules of R. Martin (1957) and Heath-Carter (1968, 1990) recommendations. The height and weight of boys were evaluated with physical development scales for Estonian schoolchildren by J. Aul (1978) and R. Silla (1984). The nutritional status was evaluated by A.R. Frisancho's (1981) standards for male. Altogether data of 255 inpatient boys were used. We divided our material to subgroups: organic disorders, mood, neurotic, mental retardation, psychological development and behavioral disorders with onset in childhood. Chisquare criteria were used for evaluating differences in subgroups.

Mean age of boys was 11.4 + 2.6 years. The height below 50 percentile was observed in 66 percent of investigated boys (p < 0.05). The weight below 50 percentile was observed in 80 percent of treated boys (p < 0.001). The arm circumference below 50 percentile occurred in 75 percent (p < 0.001) and triceps skinfold thickness below 50 percentile in 80 percent (p < 0.001) of psychiatrically treated inpatients' boys.

Psychiatrically treated boys were frequently with physical development inhibition. Complex psychosocial rehabilitation should contain also physical rehabilitation.

# Wed-P81

QUANTITATIVE ASSESSMENT OF MOTOR ACTIVITY IN STRUCTURED SITUATION IN CHILDREN WITH ADHD

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ADHD may not be discernible in all situations, and signs of this disorder may not be obvious at home or in a clinicians office. The most accurate measures of hyperactivity have used portable electronic actigraphs, however this method is quite expensive and difficulty accessible in East Europe. The simpler and cheaper method is direct observation of global motor activity in test situation as sitting, but the results rare different according to observator. We try to evaluate the cheap screening method of assessment of motor activity using video-camera.

50 children aged 8-12 (25 with DSM-IV diagnosis of ADHD and 25 healthy controls matched according to age and sex) were videotaped during 15 minutes of fixed sitting. The motor activity of the head, trunk and limbs and total motor activity was assessed by 2 independent researchers using the video-tape.

Analyses were conducted in order to evaluate the differences in number and type of movements between groups. Correlations between results of this examination and Conner's Rating Scale and clinical diagnosis according to DSM-IV and ICD-10 (ADHD subtype and severity) were also analysed.

## Wed-P82

STATE AND TRAIT ANXIETY AND DEPRESSION IN MOTHERS OF CHILDREN WITH ADHD

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In recent years some researches were done on the associations between attention deficit hyperactivity disorder (ADHD), affective disorder and anxiety disorders. The high prevalence of depression and anxiety was found in relatives of ADHD children, however the results are sometimes contradictory. To estimate the anxiety and depression level in mothers of ADHD children and mothers of healthy controls, we examined 22 mothers of children with DSM-IV diagnosis of ADHD and 22 mothers of healthy controls using the Polish versions of the State and Trait Anxiety Inventory and the Beck Depression Inventory. Short structured personal interviews were also done. Analyses were conducted in order to evaluate differences in age, family history, education, occupation, general health status between both groups.

We analyzed also the associations between the level of anxiety and depression in mothers and level of hyperactivity and conduct problems in children estimated by parents, and the DSM-IV and ICD-10 criteria for ADHD and conduct disorder (CD) as well.

The mothers of hyperkinetic children exhibited higher levels of depression and anxiety. The level of depression might have an influence of mother opinion about her child and it should be taken into consideration in the clinical examination.

# Wed-P83

THE LONG-TERM COURSE OF CHILDREN WITH ADHD TREATED WITH CENTRALSTIMULANTIA

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Objective: To study the long-term course (10-25 years) of children who have been diagnosed with attention-deficit-hyperactivity-

disorder and who have been treated with centralstimulants in childhood.

Methods: Using nation-wide registers, different aspects of longterm course are analysed. Psychiatric admissions are analysed by means of the Danish Psychiatric Case-Register, giving information about in-patient treatment, diagnoses, etc. Information about death is gathered from the Death Cause Register, and reported criminality is described by means of information from the Register of Criminal Offense.

Results: Children with ADHD have high risk of later admissions to psychiatric hospitals in adulthood, and have a high frequency of reported criminality. The results, as regards diagnostic distribution in adulthood and predictive factors for psychiatric morbidity and criminality, are presented.

Conclusions: Psychiatrists must be aware of the high proportion of children with attention-deficit-hyperactivity-disorder who are later referred for psychiatric treatment as adults.

### Wed-P84

THE TOLERABILITY AND EFFICACY OF ZIPRASIDONE IN THE TREATMENT OF CHILDREN AND ADOLESCENTS WITH TOURETTE'S SYNDROME (TS)

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Conventional low-dose D<sub>2</sub> antagonist therapy for TS is frequently associated with unacceptable extrapyramidal side-effects (EPS). Ziprasidone is a novel antipsychotic with a unique receptor binding profile. Ziprasidone 80-160 mg/day has been shown to be effective in ameliorating positive and negative symptoms, as well as symptoms of depression and anxiety in patients with an acute exacerbation of schizophrenia. It is also very well tolerated. This was a randomized, double-blind, placebo-controlled, multicenter study of patients aged 7-17 years with TS. Patients received either placebo (n = 12, mean age = 12 years) or ziprasidone (n = 16, mean age = 12 years) for 8 weeks. Ziprasidone was initiated at 5 mg/day and increased in increments of up to 5 mg bid every 3-4 days to a maximum dose of 40 mg/day at the investigator's discretion. Ziprasidone was significantly more effective than placebo in reducing mean Yale Global Tic Severity Scale (YGTSS) global score (P = 0.016) and mean YGTSS total tic subscale score (P = 0.008). Total number of motor and phonic tics decreased by 54% with ziprasidone (n = 15) but by only 1% with placebo (n = 11, P = 0.04). In patients with a score of  $\geq 2$ (mild or worse) on item 17 (Global Severity) of the Child Yale-Brown Obsessive Compulsive Scale (CY-BOCS) (n = 5 in each)group), the mean obsessive-compulsive disorder score (derived from CY-BOCS) decreased by 26% in the ziprasidone group and increased by 5% in the placebo group. Mild, transient somnolence and insomnia were the most frequently reported adverse events associated with ziprasidone. Ziprasidone was not associated with significant effects on laboratory tests, vital signs, weight, or ECG. There were no clinically meaningful changes in the mean Simpson-Angus, Barnes Akathisia, or AIMS scores. These results indicate that, in the dose range evaluated, ziprasidone is effective and well tolerated in reducing the characteristic symptoms of TS in children and adolescents and may be associated with a low risk of EPS.

# Wed-P85

THE PSYCHOLOGICAL DEVELOPMENT OF CHILDREN WITH THYROID CANCER EXPOSED FOLLOWING THE CHERNOBYL ACCIDENT (CLINICAL AND DOSIMETRY ANALYSIS)

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The dynamic examination of 116 Belarus children at the age 10-15 with thyroid cancer exposed following the Chernobyl accident has been conducted. The examination included the application of standardized clinical psychiatric interview as well as psychological testing by Wechsler Intelligence Scale for Children (WISC-III-UK, 1992). For children included in investigation the individual thyroid doses from <sup>131</sup>I have been reconstructed. The mean value of thyroid dose 0.95 Gy and the median of distribution with 0.64 Gy were estimated for children included in study. Approximately 10% of children received thyroid doses from <sup>131</sup>I greater than 2 Gy.

The children operated on the oncopathology of thyroid gland as compared to the control group manifested an increase of mental and behavioral disorders such as adjustment disorders (41.4% vs 6.7%), post-traumatic stress disorders (6% vs 0%) and hyperkinetic disorder (7.8% vs 2.2%). No significant distinctions between average-group IQ of the children operated on the thyroid oncopathology (mean IQ score was 95.9  $\pm$  9.1) and the children belonging to the control group (mean IQ score was 97.4  $\pm$  8.4; P > 0.05) has been found. No relationship between the frequency of adjustment disorders and level of individual thyroid dose was found (r = 0.08; P > 0.1). We also found the tendency toward increasing of hyperkinetic disorders depending on the individual thyroid dose (r = 0.28; P < 0.05).

#### Wed-P86

PHARMACOLOGICAL TREATMENT IN POLISH CHILD AND ADOLESCENT PSYCHIATRY

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Child and adolescent psychopharmacology is often controversial. There is only a limited number of controlled trials and widely prescribed drugs are not always mostly investigated. Rationale: to estimate the "status quo" of child and adolescent psychopharmacology in Poland.

Method: During the Biennial Child and Adolescent Psychiatry Conference 35 doctors (approx. 1/3 of polish child psychiatrists) filled out an anonymous questionnaire included demographic data (physician's age, sex, kind and degree of specialization, type of institution) and questions about drugs recommended in various mental disorders in children and adolescents. The list of disorders covered: ADHD, enuresis, anxiety disorders, OCD, depression, sleep disorders, conduct disorders (CD) and aggression, tics, psychoses. The questioned physician should give 3 drugs in the sequence of the use frequency.

Results: Our results suggest, that the most widely prescribed drugs in ADHD and conduct disorder are neuroleptics (e.g. thioridazine). Antiepileptic drugs (e.g. carbamazepine) are popular in treatment of various disorders (ADHD, CD, tics, sleep disorder). In 3 disorders we observed a dominance of single drug (clomipramine in OCD, haloperidol in tics, thioridazine in ADHD). On the contrary, the variety of drugs were suggested in psychoses and anxiety disorder.