

severe (12% of the cases). The rCBF was assessed by means of SPECT using  $^{99}\text{Tc}$ -HMPAO as a tracer in six brain regions: dorsolateral prefrontal, orbito-frontal, anterior temporal, temporo-parietal, occipital, and basal ganglia.

**Results:** 1) The mild schizophrenic defect were better detected by the BVRT than by the SPECT ( $p < 0.01$ ). 2) The rCBF was normal in four cases (16%), and the remaining 21 (84%) showed hypoperfusion in the frontal (dorsolateral prefrontal and orbito-frontal) and/or basal ganglia regions. 3) No significant relationship was found between the relatively lower rCBF and the degree of the defect. 4) The presence of BOTH (EITHER) treatment non-compliance AND (OR) substance (alcohol) abuse was related to the degree of the defect ( $p < 0.05$ ). 5) The schizophrenic defect was significantly associated ( $p < 0.05$ ) with a history of schizophrenia among the first-degree relatives (parents or siblings).

**Conclusion:** The results of this study are in favour of a multifactorial etiopathogenic hypothesis of schizophrenia.

### Wed-P32

#### AN EEG STUDY OF THE NEURODEVELOPMENTAL HYPOTHESIS OF SCHIZOPHRENIA. MEASURES OF EEG ACTIVITY AND EEG REACTIVITY

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The hypothesis that irregular regressive phenomena in the organisational level of the neuronal network (representational network) underlie the manifestation of productive schizophrenic symptoms is tested with EEG data in three groups of normal adolescents, in first-episode, neuroleptics-naive schizophrenics and in matched controls (total: 70 subjects).

EEG (19 channel) theta, alpha and beta band centroid frequency was used as indicators of the level of complexity and momentary excitability of the neuronal network.

Schizophrenics show lower theta and higher alpha and beta centroids in EEG activity and partial similarities in theta and alpha centroid behavior with the two younger groups of juveniles.

The results are interpreted within the framework of a model of the brain's functions underlying allocation of attention as suggesting dissociated (partially regressed and partially over-activated) neuronal activation, i.e., dissociated contents of working memory in schizophrenia.

### Wed-P33

#### ESTIMATION OF DIMENSIONAL COMPLEXITY OF MULTI-CHANNEL EEG IN FIRST EPISODE SCHIZOPHRENICS. AN EXTENSION AND REPLICATION OF A FINDING

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In nine first episode, neuroleptic-naive acute schizophrenics and in 18 matched in age, sex and basic education controls, the dimensional complexity of 19 EEG recordings (computed in 12 local gradients) was assessed by computing the correlation dimension during 10 seconds in five recording conditions: resting and after the presentation of four short sentences.

The correlation dimension of schizophrenics was significant higher in 26 of the 12 locations (resting 8 times; sentence 1, 5 times; sentence 2, 5 times; sentence 3, 4 times and sentence 4, 4 times). The results confirm our previous findings with 12 first episode schizophrenics where only two recordings were available.

The results are interpreted within the framework of a model of the brain's functions underlying allocation of attention as suggestive dissociated neuronal activation in schizophrenia.

### Wed-P34

#### SCHOOL FOR PSYCHOPHYSICAL SELF-REGULATION OF DIABETES MELLITUS PATIENTS

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The diabetes mellitus often proceeds against a background of available or secondary psychic disorders. Our eight-year experience indicates that such patients need treatment in the "School for psychophysical self-regulation". The treatment was applied to the insulin-dependent and non-dependent patients in conjunction with manic-depressive psychosis, latent schizophrenia and marginal forms of neuro-psychic disorders. Patients were examined by clinical-psychopathological and psychological methods. The training provides maximum information on the nature of disease, methods of self-control, prophylaxis of complications, peculiarities of individual treatment - everything for continuous stable cure procedure. The patient's chronic stress, the shattering of the shaped stereotype, disturbances in the relationship and his fear for his future have to be taken into account. Thus, the main purpose of the psychiatric, psychotherapeutic and psychological help to the given contingent is in the first place a relief of mental state and a reduction of symptoms.

The psychological aspect of our program includes such purposes as to devise optimal styles for overcoming the nosogenic stress, to develop an adequate subjective conception of the disease, to correct one's self-appraisal, to form some self-regulation habits. The communicative connections within the group established, the patients became able to join actively in the psychosocial relations after the treatment. The combination of the training program with the psycho-corrective measures allows to improve a quality of the therapy, to prevent a development of neuro-psychical disorders, and it ensures psychosocial adaptation in the society.

### Wed-P35

#### ELECTROCONVULSIVE THERAPY IN SCHIZOAFFECTIVE DISORDER

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**Introduction:** As it is known, ECT relieves such symptoms as delusions, hallucinations and agitation, but not the underlying schizophrenic apathy, social withdrawal and emotional unresponsiveness. It is most useful when severe symptoms have developed suddenly in a patient who was previously in good mental health, especially if there are also striking changes in mood (schizoaffective disorders).

**Material and Method:** The sample was consisted 73 inpatients with diagnosis of schizoaffective disorders. Two groups were established: twenty four with ECT treatment and forty nine with neuroleptic drugs.

**Results:** There were statistical differences between them in relation of gender and age. The therapeutic efficacy of ECT was assessed by using Hamilton Rating Scale for Depression and Clinical Global Impression Scale showed marked improvement in 70% of patients in both groups. But group with ECT (average 8.5/patient) showed less days of hospitalisation: 20.8 versus 37.5 days.