S26.2
Muscle histopathology in schizophrenia

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Muscle biopsies were performed in either m. tibialis anterior or m. vastus lateralis in patients with schizophrenia, unaffected first-degree relatives and matched controls. In a first study 26 patients were included and in a second study muscle biopsies from 14 schizophrenic patients and 25 unaffected first-degree relatives were analyzed.

Histopathological abnormalities were found in 7 of the muscle biopsies in the first study. In the second study muscle biopsy abnormalities were found in 5 patients and in 10 relatives. The abnormalities consisted mainly of scatterd or groups of atrophic muscle fibres. The atrophic fibres were of both type I (slow-twitch) and II (fast-twitch) according to ATPase staining.

The muscle biopsy abnormalities which are "neurogenic" indicate an affection of the peripheral motor unit in schizophrenic patients and unaffected first-degree relatives. Together with other signs of disturbances of the peripheral nervous system they may serve as biological markers for the disposition to schizophrenia.

S26.3
Aberrant fingertapping and electromyographical abnormalities in patients with schizophrenia

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In previous studies of schizophrenic patients, neuromuscular (histopathological and electrophysiological) and psychomotor (finger tapping) abnormalities were found. The present study was designed to investigate relationships between these abnormalities and a family history of psychosis in 14 schizophrenic patients and 25 unaffected first-degree relatives compared to 14 healthy controls. Macro EMG recordings were made from m. tibialis anterior. A finger tapping test was used to investigate psychomotor performance. Neuromuscular abnormalities and/or aberrant psychomotor performance were found in 13 (93%) patients, 14 (56 %) first-degree relatives and in three (21 %) controls. A statistically significant relationship for the psychomotor, but not neuromuscular changes to a family history of psychosis was found using a logistic regression method. The relationship between psychomotor findings and a family history of psychosis indicate that central aspects of motor aberrations are associated with a hereditary disposition to psychosis. The neuromuscular as well as psychomotor changes indicate that schizophrenia may be a systemic disease involving the central nervous system as well as peripheral organs. An altered cell membrane is suggested to be an underlying factor based on the type of neuromuscular findings.

S26.4
EMG responses to transcranial magnetic stimulation of the motor cortex in schizophrenia

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Studies using transcranial magnetic stimulation (TMS) of the motor cortex and surface electromyographic (EMG) recordings support the hypothesis that corticospinal inhibitory processes are disrupted in schizophrenia.We have found that the latency of motor evoked potentials (MEPs) following TMS was significantly shorter in patients with schizophrenia compared with age- and sex-matched normal controls. These findings could relate to: a relative lack of corticospinal inhibition; a change in the site of TMS activation; or an abnormality of peripheral nervous function. Our subsequent study in drug-naïve and medicated patients showed that corticospinal inhibition, as assessed by examining the silent period (SP), could be modulated by antidopaminergic medication. In some patients the SP was clearly made up of early and late components and the percentage of control levels of voluntary EMG was measured in each. During the early component there was a significantly weaker suppression of EMG in the medicated patients compared with the drug-naïve patients. These results leave unanswered the question of whether the altered inhibition primarily relates to the symptomatology of the disorder or to the medication.

S27. Current epidemiology and clinical picture of OCD

Chairs: E.-G. Hantouche (F), J. Angst (CH)

S27.1
The iceberg of obsessive–compulsive syndromes

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Objectives: to investigate the diagnostic and sub-diagnostic morbidity of obsessive–compulsive syndromes and their comorbidity in young adults from the community.

Methods: In the Zurich cohort study the health status of 591 subjects from the community was assessed by interview carried out by clinical psychologists or psychiatrists six times over a period of 20 years between the ages of 20 and 40. An obsessive–compulsive spectrum was defined by 1) the presence of DSM-III OCD (associated with high distress/anxiety and impairments, OCS (obs.-comp. syndromes) (some distress with impairment) and OC-symptoms.

Results: The cumulative prevalence rates across all interviews was 3.5% for OCD, 8.7% OCS and 11.1% OC-symptoms. Overall there was no gender difference although there were more women among OCD cases (5.4%) than men (1.7%). Prospectively most OCD cases decreased remarkably in severity, frequently manifesting OC-syndromes or symptoms only or becoming asymptomatic. OCD and OCS were significantly comorbid with other anxiety disorders, but also strongly associated with the bipolar and depressive spectra, however, not with substance abuse/dependence.

Conclusions: Diagnostic and sub-diagnostic obsessive–compulsive syndromes are very widespread in the general population and have generally a good prognosis.

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