psychosis') showed expansion of 0.9 ± 0.5 cc/year (comparable to controls). Another subcluster (a putative 'atrophic psychosis') showed ventricular expansion of 4.0 ± 1.0 cc/year ($p < 0.001$ [vs. controls]). By adolescence the 'atrophic psychosis' patients had already showed progression of trait-like negative symptoms which, following emergence of frank psychosis, were poorly responsive to conventional neuroleptics. Positive symptoms, in such 'atrophic psychosis' patients evidenced a significant, though delayed (8 weeks) decline during neuroleptic treatment. In contrast, the non-expanding ventricle psychosis was characterized by a paucity of negative symptoms, but with positive symptoms which were poorly responsive to neuroleptics. In these non-expanding, putatively 'neurodevelopmental psychoses', increases of neuroleptic dosage was associated with emergence of negative-like symptoms, which remitted during dosage reduction.

Conclusions: These results provide evidence for the existence of two etiologically and clinically distinct psychoses within the rubric of schizophrenia, one 'atrophic' and the other relatively static, putatively 'neurodevelopmental'.

MRI VOLUMETRIC FOLLOW-UP STUDY OF SCHIZOPHRENIC PATIENTS

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In a MRI volumetric study analyzing an all-male sample of 41 first-episode and 30 chronic schizophrenic patients as well as 32 healthy controls matched for age and education, we found a significantly smaller total brain size for the group of chronic schizophrenic patients, significantly larger lateral ventricles in both patient groups and a bilateral hippocampal volume reduction in first-episode patients (−13.1% on the left, −12.05% on the right) and chronic schizophrenic patients (−10.6% left, −10.5% left) compared to controls.

We conducted a follow-up study 2–4 years after the first examination. Patients and controls were again subjected to an MRI-scan. In the patient groups, a SCID-interview, PANSS ratings, a semistructured clinical interview including data concerning the course of disease (number of exacerbations, number and length of hospitalisations, psychosocial achievements) and psychopharmacological treatment (antipsychotic medication, dose, other medications, side effects, compliance) was performed.

We again measured total brain volume, both hemispheres, lateral ventricles, and the hippocampus-amygdala complex divided into an anterior and posterior portion by using a 3D-FLASH sequence with T1 weighted images and 1 mm slice thickness.

Results of the follow-up of 21 first episode patients, 20 chronic schizophrenic patients and 17 healthy controls are presently being analyzed.

LANDMARK-BASED SHAPE ANALYSIS OF DEFICIT VERSUS NON-DEFICIT SCHIZOPHRENIA

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Landmark-based shape analysis and image averaging are recently developed structural analytic techniques which quantify shape and shape differences of widely-spaced landmarks and allow visualization of these differences between groups. Significant shape differences in subcortical landmarks have previously been demonstrated between chronically ill and first-episode patients with schizophrenia and controls. Deficit schizophrenia is a particularly severe subtype manifesting persistent primary negative symptoms. Deficit psychopathology is a trait phenomenon with a specific clinical and neuropsychological picture, and longitudinal course. Deficit schizophrenia is also presumed to have specific neuroanatomic under-pinnings, the structural aspects of which have been described by Buchanan and colleagues. The present study applies landmark-based analyses to mid-sagittal MRI images from 17 deficit and 24 non-deficit patients and 30 normal controls. Patients were diagnosed according to DSM III-R criteria, deficit-non-deficit status was determined using the Schedule for the Deficit Syndrome. MRI scans were obtained using identical acquisition parameters for all groups. Landmarks were located blindly on mid-sagittal images, including: genu, mid-point and splenium of corpus callosum, upper and lower pons, tip of fourth ventricle, superior colliculus, optic chiasm, superior and inferior cerebellum, and insertion of tentorium cerebelli. It is hypothesized that patients with schizophrenia will demonstrate significant anatomic shape deformations compared to controls. Furthermore, in light of previously demonstrated volumetric region-of-interest differences between deficit and non-deficit patients, significant shape differences will be identified between these groups.

THE MAUDSLEY EARLY ONSET SCHIZOPHRENIA STUDY: BRAIN STRUCTURAL ABNORMALITIES IN ADOLESCENT ONSET SCHIZOPHRENIA

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Background: Brain abnormalities have been repeatedly shown in adult onset schizophrenia. Recent evidence suggests that similar pathology may exist in schizophrenia with onset in childhood. However, such cases are rare and may be considered