prodromal symptoms in impending relapse. Results demonstrate that prodromes are a category of symptoms on their own, but do share variance with other symptom domains. Treatment side-effects, psychotic symptoms, dysphoric mood, and social dysfunction are all associated with prodromal states – the direction of this association, however, is still to be clarified. Prodromal symptoms are also related to the neuroleptic treatment strategy and its relapse preventive efficacy – findings that underscore neuroleptic maintenance medication in preventing both overt and subtreshold psychotic morbidity in schizophrenia.

S42.02

STRUCTURAL BRAIN ABNORMALITIES IN SCHIZOPHRENIA IN RELATION TO OUTCOME

W.G. Staal, H.E. Hulshoff Pol, H.G. Schnack, R.S. Kahn*. *University of Utrecht, Dept. of Psychiatry, Heidelberglaan 100, 3584 CX, The Netherlands*

(a) Background: Schizophrenia is a chronic and prevalent psychiatric disorder with a highly variable outcome. Although numerous studies suggest the presence of structural brain abnormalities in schizophrenia, only ventricular enlargement has been related to outcome. This study was designed to investigate the relationship between outcome and structural brain abnormalities in schizophrenia.

(b) Method: Brain-scans of 24 patients with an extremely poor outcome, 25 patients with an extremely favorable outcome, and 25 healthy controls were obtained using Magnetic Resonance Imaging (MRI). The regions of interest included intracranial volume, cerebrum, grey-matter and white matter, the cerebellum, the lateral ventricles and the third ventricle. Dosage or type of antipsychotic medication was not different for the two groups.

(c) Results: An overall difference in brain structure was found between the three groups (Wilks, $F = 3.4$, df = 10, $p < 0.1$). Poor-outcome patients displayed a significant grey-matter volume decrease ($t = 3.2$, df = 43, $p < 0.01$) and a significant ventricular enlargement ($t = 3.7$, df = 43, $p < 0.01$) as compared to good-outcome patients and healthy controls. No relationship between volumes of white-matter, third ventricle or cerebellum and outcome was found.

(d) Conclusion: Our findings suggest that outcome in schizophrenia is related to grey-matter volume loss and ventricular enlargement. These findings have important implications for the interpretation of previous reports of grey matter volume loss in schizophrenia.

S42.03

TEST OF SEROTONERGIC ACTIVITY IN THE BRAIN PREDICTS THERAPEUTIC RESPONSE OF PATIENTS WITH SCHIZOPHRENIA

J. Libiger, P. Mohr, J. Horáček, P. Czobor, R. Bahbouch. *Dept. of Psychiatry, Charles University Medical School and University Hospital, Hradec Králové; Psychiatric Center, Prague; Dept. of Psychiatry, 3rd Medical School, Prague, Czech Republic*
Nathan Kline Inst. For Psychiatric Research, Orangeburg, New York, USA

Recently, the interest in the role of serotonin in pathophysiology of schizophrenia was renewed, partly because many novel antipsychotics are high affinity blockers of 5HT receptors. Neuroendocrinological probes of 5HT neurotrasmission (mCPP, fenfluramine, n) were used to predict different responsivity to classical or new antipsychotics. Our objective was to test the hypothesis that the maximum PRL increase after dex-fenfluramin (dFF) challenge is associated with the change of BPRS total score after 4 weeks of individually adjusted haloperidol treatment. The blood samples of patients were collected after overnight fasting before and after 60 mg of dFF for the period of five hours and prolactin serum conentrations were assessed. In a group of patients with early schizophrenia we found a signficant negative association between pretreatmet prolactin increase and the change of total and some factor scores of BPRS over 4 weeks (Mohr et al, 1998). We also detected a significant difference in weight corrected increase of prolactin between predefined responders and non-responders to treatment. The magnitude of PRL response to dFF after the test was associated with the BPRS item score of "blunted affect" at the beginning of treatment. Also, the patients with high "blunted affect" score had higher PRL response at the end of the treatment. The pretreatment maximum prolactin increase after dFF challenge significantly correlated also with the post-treatment scores of BPRS factor "anergy" ($r = 0.4$, $p < 0.05$). Our results support the idea that patients with schizophrenia, who do not respond to haloperidol, tend to have higher serotonergic responses to neuroendocrine challenge and more negative symptoms before and also after the treatment with haloperidol.

(1) Mohr P, Horáček J, Motlová L, Libiger J, Czobor P: Prolactin response to D-fenfluramine challenge test as a predictor of treatment response to haloperidol in acute schizophrenia. Schizophrenia Research., 30, 91–99, 1998

S42.04

PREDICTING LONG TERM RECOVERY IN SCHIZOPHRENIA: FINDINGS FROM THE INTERNATIONAL STUDY OF SCHIZOPHRENIA

G. Harrison. *On behalf of the ISoS Collaborating Investigators; Division of Psychiatry, University of Bristol, 41 St Michael's Hill, Bristol BS2 8DZ, UK*

Over the last 20 years, new epidemiological data have challenged the notion that poor prognosis is 'hard-wired' into the diagnosis of schizophrenia. Study findings are often difficult to interpret however on account of sampling biases and follow-up attrition. In 1978–80, the WHO 'Determinants of Outcome of Severe Mental Disorder' (DOSMeD) project identified first episode cohorts of psychosis across a range of international centres, utilising similar case finding methods. Fifteen years later, nine of these joined 5 other Centres that could identify comparable cohorts, to carry out a follow-up study of schizophrenia and related psychoses – the International Study of Schizophrenia (ISOS). 1171 incident cases in 14 centres were followed using standardised assessments; 50% of those traced were rated as recovered for global symptoms, with absent or mild social disability. Although aggregated data for treated recovery ranked among the highest reported, there was marked heterogeneity across research Centres. Regression models uncovered the primary role of *early pattern of course* in predicting long term outcomes in all Centres, but also revealed independent Centre effects on outcome. These findings underline the 'window of opportunity' for innovative treatment programmes in the early course of schizophrenia, and also illustrate the potential role of socio-cultural factors (embedded in the 'Centre' effects) in the long term patterning of psychotic disorders.

https://doi.org/10.1016/S0924-9338(00)94315-3 Published online by Cambridge University Press