behaviors; their social life was relatively less impaired. Globally, both groups were equally depressed, but, for recent cases, depressive symptoms varied according to weight control strategies.

Fifty-eight per cent of the subjects with early onset BN could be reassessed two years after initial contact: 32% still had a DSM-IV diagnosis of BN, 28% had some, but not all, features of the disorder, and 40% were symptom-free. The specific clinical characteristics of the group were maintained.

In conclusion, risk factors for early onset BN are consistent with etiopathogenic factors for BN in general. Although the disorder can last for years, often untreated, BN does not appear more severe when it starts early during adolescence.

NEW DEVELOPMENTS IN THE STUDY OF AFFECTIVE DISORDERS IN YOUNG PEOPLE

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Major depressive disorders are relatively common in school-age children and adolescents. Epidemiological studies have delineated the six month prevalence rate of approximately 5%. New incidents occur with greatest frequency in middle adolescence with a slightly greater preponderance of females to males. In addition the clinical characteristics of major depression appear to vary with age. Studies on clinical populations suggest that as many as 45% of patients with major depressive disorder have alterations in selected adrenal steroid function. Evening cortisol hypersecretion and morning DHEA hyposecretion have both been described in this population. DHEA is a developmental steroid with circulating levels increasing markedly between the ages of 6 and 8 and again in mid adolescence. The implications of the developmental changes in steroid environment and their alterations during episodes of depression remain unclear. By contrast there is now considerable evidence that social adversities predict an increase in depressive symptoms in adolescence. There remains however no clear evidence that social adversities specifically provoke depressive episodes in this age range. Recent findings suggest that genetic factors contribute both to the risk for exposure to life events and difficulties and to the onset of depression, at least in adults. The role of genetic factors in the onset of depressive disorders in adolescence is less certain. Unlike adult studies however, child and adolescent psychopathologists have noted the high levels of comorbidity in depressive disorders in young people. Recent findings suggest that depressive conduct disorder may represent a specific and different sub-type from depression without conduct disorder. There is a need for interdisciplinary research to bring together these different strands of information on depression in young people. Study designs for the future should include family genetic designs so that the relative contributions of genetics, shared and non-shared environmental effects on some types of depressive disorders in this age range can be elucidated. The mechanisms and processes that lead to onset, relapse and recurrence represent the goals for future research. Short term longitudinal studies will enhance current longitudinal prospectives by a more systematic investigation of mechanisms and processes involved in the onset and cessation of episodes of disorder. A developmental approach should be maintained so that continuities and discontinuities between normal development and depressive disorders can be determined.

CONTROLLED TRIAL OF A BRIEF COGNITIVE-BEHAVIOURAL INTERVENTION IN ADOLESCENTS PARENTS WITH DEPRESSIVE DISORDERS

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Fifty-three child and adolescent psychiatric patients with depressive disorders were randomly allocated to brief cognitive-behaviour therapy (CBT) or to a control treatment, relaxation training. 48 patients completed the treatment phase of the trial, which comprised 5–8 treatment sessions. Post-treatment assessments showed a clear advantage of CBT over relaxation on measures of both depression and overall outcome. However, there were no significant differences between the treatments on comorbid anxiety and conduct symptoms. At follow-up, the differences between the groups were reduced, partly because of a high relapse rate in the DTP group and partly because subjects in the relaxation group continued to recover.

S6. A united Europe in psychiatry, too?

Chairmen: J Furedi, E Fombonne

Abstracts not received.

S7. Positive and negative symptoms in schizophrenia

Chairmen: Y Lecrubier, J Waddington

NEGATIVE AND DEPRESSIVE SYMPTOMS IN ACUTE SCHIZOPHRENIC EPISODES- DO THEY IMPROVE UNDER NEUROLEPTIC TREATMENT?

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There has been a continuing debate on the prevalence, association, specifity and development of negative and depressive symptoms in acute schizophrenia with productive symptoms and treatment outcome under antipsychotic drugs. In prospective investigations on the the concomittant occurrence and 5 years' course of negative and depressive symptomatology in schizophrenic and affective disorders we found that — apart from a substantial overlap of the symptomatologies — primary enduring negative symptoms are non-specific and were present in both diagnostic groups. Even in the longitudinal course of schizophrenia, this symptomatology was not more frequent than in affective disorders, and was observed in about 15% of both diagnostic groups.

In order to evaluate the efficacy of the mixed 5-HT_2-/D_2-like receptor antagonist risperidone vs. haloperidol and amitriptyline in a functionally defined combined psychotic and depressive syndrome, 123 patients suffering from either major depression with synthymic or mood-incongruent psychotic features, a depressive

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type of schizoaffective disorder or a non-residual schizophrenia with prominent depressive symptoms have been investigated. The combination of amitriptyline and haloperidol was superior to risperidone in major depression with psychotic features but not in the depressive type of schizoaffective disorder, where both treatment groups showed comparable reductions of BPRS and BRMS scores. Thus, the nosological distinction by categorical diagnoses could be corroborated by pharmacological means.

In another clinical trial, the efficacy of the selective D_2-like antagonist amisulpride was investigated versus the D_2-/D_1-like/5-HT_2 receptor antagonist flupentixol in schizophrenia with predominant positive symptomatology, and improvement of co-occuring negative and depressive symptoms was evaluated in 132 patients. Both drugs improved negative symptoms as measured by the SANS but this effect was more marked in the amisulpride group. With regard to depressive symptoms, amisulpride produced a greater BRMS decrease than flupentixol, but this difference did not reach statistical significance. However, it has to be taken into account that amisulpride caused less extrapyramidal side effects than flupentixol.

The distinction between negative and depressive symptomatology provokes methodological problems with regard to syndromal overlap, appropriate assessment scales and their sensitivity to change. A pharmacological dissection between negative and depressive symptomatology by the response to selective psychotropic agents may contribute to a more powerful and workable functional definition. Certainly, not only positive symptoms improve under neuroleptic treatment. Specific neuroleptics with different receptor affinity profiles and antidepressive/antipsychotic combinations may be effective treatments for psychotic syndromes with both depressive and negative symptoms, and their differential effect sizes have to be clarified by further clinical trials.

BRAIN CHANGE OVER TIME IN SCHIZOPHRENIA — RELATIONSHIP TO NEGATIVE SYMPTOMS AND OUTCOME

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Brain structural deviations (ventricular enlargement, cortical volume reduction, and other anomalies) are present in patients with chronic schizophrenia. The origin of these observations, however, remains controversial. While some structural differences may have resulted from faulty brain growth prenatally or during the early years of life, others may be part of an actively progressing brain process from childhood through adulthood, and continuing after the onset of psychotic symptoms. Although, it is difficult to study a large population of schizophrenic patients before they are identified with definite illness, we have been conducting a prospective follow-up study of 1st episode schizophrenia, as close to the illness onset as possible. A total of 50 patients and 20 controls have been followed over an approximate 5 year period. A battery of clinical diagnostic and cognitive evaluations have been performed, as well as MRI scans of the brain on an annual basis. Ventricular size enlarges over time to a small degree in both patients and controls. Hemispheric cortical volume, on the other hand, decreases over time and significantly more so in patients than controls. No clinical correlates, however, were found to cortical change. Further analyses of regional brain change and specific cognitive change are in progress in order to determine the significance of these findings.

BRAIN IMAGING OF DOPAMINERGIC VARIABLES IN NEGATIVE SCHIZOPHRENIA, AND DURING NEUROLEPTIC TREATMENT

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It has been hypothesized that negative symptoms may be related to a deficient dopaminergic transmission, and respond poorly to classical neuroleptics.

At the presynaptic level, we studied the dopaminergic function with PET and 18F-FluoroDOPA, using the Patlak method in 6 non-neuroleptized schizophrenics and controls. The variance of the 18F-Dopa uptake constant Ki was significantly increased in patients: the 18F-Dopa uptake constant Ki was markedly increased in some, but not all, schizophrenics, and decreased in catatonia.

In order to investigate the links between primary negative symptoms and dopamine D2 (postsynaptic) receptors, we selected young, drug-free negative schizophrenics. The measure of the striatal D2 receptors assessed by PET negatively correlated to the scores of a dimension of psychomotor poverty, involving core negative symptoms as alogia and blunting of affects [1]. The therapeutic effects of low doses of a benzamide specific for D2/D3 receptors (amisulpride), were assessed in these patients: it improved some negative symptoms in a double blind therapeutic trial [2].

The relationships between the in vivo D2 receptor occupancy by neuroleptics and their dosages were investigated in an extended sample of patients. The levels of D2 occupancy associated with the dosages recommended for therapeutic effects on positive, or on negative symptoms differed, but there was no evidence of a difference in D2 occupancy in responders or non-responder patients [3]. In order to look for the optimal therapeutic dose range for amisulpride in responder patients, the in vivo D2 occupancy intervals were studied in a group of schizophrenics before, then while receiving this compound. A range of 70–80% occupancy of the striatal D2 receptors, suggested as an optimal interval for therapeutic action on positive psychotic symptoms, was obtained with an amisulpride dosage ranging between 630 and 910 mg a day, while an occupancy of 85%, suggested to be associated with pronounced extrapyramidal side-effects, was reached with 1100 mg a day [4].

[1] Br J Psychiat 1994 164, 27–34.
[2] Am J Psychiat 1995 152, 130–133.
[3] Psychiat, Psychobiol 1990 5, 231–240.
[4] Psychopharmacol 1996 (in press).

PSYCHOPHARMACOLOGY OF POSITIVE AND NEGATIVE SYMPTOMS OF SCHIZOPHRENIA: BEHAVIOURAL MODELS AND PHARMACOLOGICAL PROFILES

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The so-called typical antipsychotic agents are active in treating positive symptoms of schizophrenia but are much less effective against negative symptoms. Atypical antipsychotics have reduced liabilities to produce extrapyramidal side effects and, in some cases, also reduce negative symptoms. Clinical efficacy against negative symptoms has been reported for clozapine, risperidone and amisulpride and close scrutiny of the behavioural and neurochemical profiles of these drugs may provide an understanding of potential commonalities in their mechanisms of action. All three drugs have affinity for dopamine D_2/D_3 receptors but their overall neurochemical profiles show major