of chronic schizophrenic patients. 191 hospitalised patients were included in this study. They fulfilled DSM III-R criteria for subchronic or chronic schizophrenia with acute exacerbation. After a 7-day washout period, patients were treated for 6 weeks with 800 mg/d AMI or 20 mg/d H with the possibility to reduce the dose to 600 mg/d or 15 mg/d respectively. Efficacy was assessed with the BPRS, the PANSS Positive and Negative subscales and the Clinical Global Impression (CGI). Neurological safety was assessed using the Simpson Angus scale (SAs), Barnes akathisia scale (BAs) and Abnormal Involuntary Movement Scales (AIMS).

Results: 95 patients were randomised in the AMI group and 96 in the H group. Significantly more patients dropped out of the study in the H group (39) than in the AMI group (25) ($p = 0.04$). ITT analysis showed no statistically significant difference on BPRS total (AMI mean change: 20.9 versus 17.3 for H) and PANSS Positive subscale scores (AMI mean change: 10.4 versus 9.4 for H), although changes were numerically higher in the AMI group. The negative symptoms assessed with PANSS Negative subscale were significantly more improved by AMI (AMI mean change: 7.5 versus 5.1 for H; $p = 0.038$). The response rate (CGI item 2: very much or much improved) in the AMI group was significantly higher than in the H group (62% versus 44%, $p = 0.01$). The efficacy index (CGI item 3), was also significantly superior for AMI compared with H ($p < 0.001$). The severity of extrapyramidal symptoms (SAs) was significantly lower in the AMI group ($+0.06 \pm 0.51$) compared to H group (-0.19 ± 0.70)($p = 0.005$). The global assessment of akathisia (Bas) and symptoms of tardive dyskinesia (AIMS) showed no statistical difference between both groups. Adverse events were more frequently reported in the H group (72 patients with at least one adverse event) than in the AMI group (54 patients), mostly extrapyramidal symptoms. No clinically relevant modifications were observed in biochemistry or haematology tests. Amisulpride showed potent antipsychotic activity in this study, it was significantly superior to haloperidol in improving negative symptoms and induced significantly less extrapyramidal symptoms than haloperidol.

SCHIZOPHRENIA AND IMMUNOINFLAMMATORY PROTEINS

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Objective: The relationships between different immunoinflammatory proteins and clinical status in schizophrenic patients are studied. *Method:* 19 schizophrenic outpatients meeting DSM-IV criteria for paranoid schizophrenia were interviewed in an outpatient clinic. Psychopathology was rated according to PANNS. The same day that psychopathology was recorded a sample of blood was drawn to determine blood levels of the following immunoinflammatory proteins: alpha 1 glicoprotein, ceruloplasmine, alpha 2 macroglobuline and fraction 3 and 4 of the complement. *Results:* A significant positive correlation was found between PANSS' negative subscale and ceruloplasmine and alpha 1 glicoprotein blood levels. The rest of the studied variables (age, sex, number of admissions, age of onset and years of evolution) did not show significant correlations with positive, negative or general psychopathology subscales. *Conclusions:* Ceruloplasmine and alpha 1 glicoprotein blood levels may be useful as biological markers of negative psychopathology in paranoid schizophrenia.

THE EFFECT OF ZIPRASIDONE ON STEADY-STATE PHARMACOKINETICS OF A COMBINED ORAL CONTRACEPTIVE

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Ziprasidone is a novel antipsychotic agent with combined antagonism at $5HT_{2A}$ and D_2 receptors. A double-blind, placebo-controlled, two-way crossover study was conducted to assess ziprasidone's effect on the pharmacokinetics of a combined oral contraceptive. The study was divided into two 21-day treatment periods with a 7-day contraceptive-free interval. A total of 19 healthy female volunteers received 0.15 mg levonorgestrel (LNG) and 0.03 mg ethinyloestradiol (EE) daily on days 1 to 21. On days 8 to 15, the subjects also received either 20 mg ziprasidone or placebo, twice-daily (once-daily on day 15). Plasma samples were collected up to 24 hours post-dose on day 15 for analysis of LNG and EE. Plasma prolactin concentrations were determined pre-dose and 4 hours post-dose on day 15. The pharmacokinetic data showed no statistically significant differences in mean C_{max}, T_{max} and AUC_{24} for EE in plasma when multiple doses of ziprasidone were administered, compared with placebo. There were also no significant differences in mean C_{max} and AUC_{24} for LNG, although there was a statistically significant (but not clinically relevant) difference in mean T_{max}:

Mean pharmacokinetic parameters

	EE			LNG		
	C_{max}* (pg/ml)	T_{max} (hr)	AUC_{24}* (pg·hr/ml)	C_{max}* (ng/ml)	T_{max} (hr)	AUC_{24}* (ng·hr/ml)
Ziprasidone	72	2.9	954	6	2.3	86
Placebo	77	2.3	960	6	1.7	88

*geometric mean

After dosing with ziprasidone, plasma prolactin concentrations pre-dose and 4 hours post-dose were higher than after dosing with placebo. One subject discontinued due to nausea, tiredness, dizziness and vomiting after the first dose of ziprasidone, but no serious adverse events occurred during the study.

CYTOKINES AND SOLUBLE CYTOKINE RECEPTORS IN THE BLOOD AND CSF OF SCHIZOPHRENIC PATIENTS

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Especially the influence of the cytokines to the neurotransmitter metabolism suggests a pivotal role for psychiatric disorders. From that point of view, neuroleptics would be expected to influence immune parameters. It seems that the cellular immune system is less influenced than the cytokine production by neuroleptics. Preliminary results of investigations of the soluble IL-6 receptor (sIL-6R) in schizophrenics show, that the sIL-6R levels are increased in acute unmedicated schizophrenic patients. During neuroleptic treatment sIL-6R levels decrease to the values of controls. Furthermore, results show that the decrease of sIL-6R levels may predict the decrease of schizophrenic negative symptoms during neuroleptic treatment [1]. In contrary, sIL-2R show an increase in schizophrenic patients during neuroleptic therapy. This result fits with the suggested IL-2-antagonistic function of sIL-2R; IL-2 is described to be elevated in the CSF of schizophrenics and to predict a schizophrenic relapse [2,3]. Moreover, in-vitro studies of the neuroleptic action to cytokines, which underline these

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results, and results of cytokine-estimations in the CSF will be presented.

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PHENOMENOLOGICAL RESEARCH IN SCHIZOPHRENIA: A RESEARCH PATHWAY FOR INTEGRATIVE CONNEXIONS INTO THE BIO-PSYCHO-SOCIAL MODEL

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Current interest for cognitive sciences can be partially explained by the multiple unknowns remaining in the study of superior cerebral functions as thought, memory, language, or consciousness. Researchers today try to find from the cognitive perspective new connections between old concepts such as imagination, perception, language or reality. Although a consensus seems clearly admitted as to the neurobiological bases of such functions no evidence may be considered as definite, while entering the XXIth century, for understanding the nature of relations between mental processes and cerebral structure. At the same time, psychiatrists, particularly in schizophrenia research, have to reconcile heterogeneous data whether neurobiological, neuropsychological, psychoanalytical or sociological. In fact, in front of the mysterious puzzle of schizophrenia they actually fail, always stumbling on an epistemologic *salto mortale*, to introduce the subject's history, including schizophrenic facticity and coping with schizophrenia, as involving the person as a whole. We aim in this paper to suggest that phenomenological research brings, even today, rigorous and pragmatical non-theoretical patterns for understanding the schizophrenic experience as an integrated totality. Firstly, we have to answer some questions about phenomenological research in schizophrenia such as: -1- Although a few pioneers such as Binswanger, Blankenburg, Jaspers, Minkovski or Wyrsch followed this line of study for 80 years, why is the impact of phenomenological research still so modest? -2- Is phenomenological criticism actually relevant to the new approaches of mental illness such as cognitivism or unlinear models of causality? -3- Does phenomenology constitute a good method for conducting empirical research and does this method today promise some new pathway for tomorrow's research? We suggest that phenomenology would still not bring an anthropological philosophy to romantic psychiatrists studying single cases, but turn to a basic narrative conception of intentionality that is today lacking in psychopathology and may allow for the integration of multiple heterogeneous factors. Following this line, the analysis of what we take for granted and usually call "stories" or "connections" seems to be the major challenge for phenomenological research tomorrow.

THE RELATIONSHIP BETWEEN IMMUNOLOGICAL FUNCTION AND STRESS AMONG SCHIZOPHRENIC PATIENTS

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Objectives: We examined the immunological function in schizophrenic subjects and their relation with stress levels.

Methods: A cohort of 30 schizophrenics (8 women; ages 29.37 ± 3.29) suffering from an acute exacerbation of their disease were assessed by immunological parameters and level of stress. These level was measured by the Stress and Social Support Scale (California Departament of Mental Health) and the Wilcox Support Social Scale. Levels of ACTH and cortisol were also measured. Immunological values of schizophrenics were compared with the average of the population of Granada (t test). Association between stress levels and immunological function was examined by the Spearman Test.

Results: A decrease of the subpoblation of T helper cells (CD 45 R+) was found among schizophrenics. In addition, we found an increase in the proportion of IL 2 receptors and an increase in the linfocitic expression of HLA-DR. However, no significant correlation was found between stress levels and immunological function. Higher levels of social support were found among women (rs: 0.4504; $p < 0.05$), younger patients (rs: 0.4465; $p < 0.05$) and was associated with lower levels of cortisol (rs: −0.6153; $p < 0.001$).

Conclusion: In spite of a depressed immunological function found among schizophrenics in this study, results do not allow to conclude that this fact is mediated by stress levels.

THE EFFICACY AND SAFETY PROFILE OF A NEW ANTIPSYCHOTIC, ZIPRASIDONE

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Ziprasidone is a unique molecule with a neuropharmacological profile distinct from those of standard as well as newer antipsychotics. The high $5HT_{2A}/D_2$ receptor affinity ratio of ziprasidone is now regarded as a strong indicator of antipsychotic efficacy with a marked reduction of extrapyramidal side-effects (EPS). In addition to efficacy in positive symptoms of schizophrenia, the receptor profile also suggests efficacy in negative symptoms and a therapeutic impact on mood and anxiety.

Ziprasidone efficacy and safety have been evaluated in Phase II studies in a range of doses in comparison with haloperidol and placebo. Results of these trials support the conclusion that ziprasidone is an effective antipsychotic drug, when tested in patients experiencing an acute exacerbation of schizophrenia or schizoaffective disorder. It is also well tolerated, with a low incidence of EPS and no significant adverse effects on laboratory safety tests or electrocardiogram parameters. These results offer hope that this new agent will prove to be a further advance in the management of schizophrenia. Further work is required to confirm these findings and to identify the optimal dose.

CEREBRAL BLOOD FLOW VELOCITY AND PSYCHOPATHOLOGY IN SCHIZOPHRENIA: A TRANSCRANIAL DOPPLER SONOGRAPHY STUDY

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Both increases and decreases have been described in the literature for cerebral blood flow (CBF) disturbances in schizophrenia. This study intends to test the relationship between mean blood flow velocity (Vmean) and psychopathology by using Transcranial Doppler Sonography (TCD) for the first time. 23 consecutive patients (11m, 12f, age 33 ± 12 y) with the diagnosis of schizophrenia (DSM-III-R, ICD-10) were assessed with PANSS (Positive and Negative Scale for Schizophrenia) and TCD first on admission after being diagnosed, and for a second time after clinical improvement. Mean blood flow velocity (Vmean) and pulsatility index (PI) in medial, anterior and posterior cerebral arteries (MCA, ACA, PCA) were measured. Changes lying

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