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Abnormalities of peripheral amino acid concentrations have been reported in schizophrenia since 1954 (Sackler, 1954), however results have been inconsistent and the neurobiological implications of these abnormalities remain unclear.

We measured serum levels of serine, glycine and glutamate in 14 chronic non-refractory patients with schizophrenia treated with traditional antipsychotics and in 12 first-degree relatives and compared the data to the serum levels from 12 refractory patients treated with clozapine and their first-degree relatives.

We found decreased serum levels of serine ( $p=0.048$ ) and glutamate ( $p<0.001$ ) in chronic non-refractory schizophrenia compared to refractory schizophrenia, but no differences in glycine levels.

Furthermore, the data demonstrated that first-degree relatives of non-refractory patients have increased serum levels of glycine ( $p=0.046$ ) and decreased levels of glutamate ( $p<0.001$ ), but no differences in serine serum levels compared to first degree-relatives of refractory patients

These data show that changes in serum amino acids may predominantly involved in central glutamatergic transmission in refractory schizophrenia. Also, it could be hypothesized that this differential pattern of serum aminoacids concentrations in first-degree relatives may be a biological marker and predictor involved in the response to antipsychotic treatments in schizophrenia patients.

### P0132

Childhood subclinical characteristics in schizophrenia - a questionnaire-based retrospective study

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**Background and Aims:** Childhood subclinical characteristics have not been fully investigated in patients with schizophrenia. To elucidate the picture of them, and to find out indicators which predict later development of schizophrenia, childhood behaviors of the adult schizophrenia subjects were investigated in a questionnaire-based retrospective study.

**Population and Methods:** schizophrenia outpatients ( $n=50$ ) in his/her twenties and normal healthy subjects ( $n = 100$ ) were investigated. All patients are diagnosed according to DSM-IV-TR as schizophrenia, and who presents now mainly negative symptoms after passing an acute stage. By modified use of the Child Behavior Checklist (CBCL) as a retrospective assessment questionnaire, the parents of the patients and of control subjects rated their childhood behavior.

**Results:** A discriminant analysis using all items of CBCL correctly classified 99.0% of the population. Notable in an item-level analysis was an extremely attenuated aggression in personal relations in the schizophrenia subjects. Among eight subscales of the CBCL, those of Withdrawal, Social Problems, Attention Problems and Aggressive Behavior contributed most to the accuracy of the prediction of group membership.

**Conclusions:** It was suggested that subclinical behavioral and psychological characteristics of schizophrenia already exist in the

patients' childhood, among which lack of aggressive behaviors might be one of the core features.

### P0133

Anomalies of subjective experiences as basic phenotypes of schizophrenia spectrum disorders: A review of three empirical studies

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**Background:** Anomalous subjective experiences are thought to be intrinsic to schizophrenia and considered as constituting the phenotypic validity anchor of the schizophrenia spectrum concept.

Although neglected in modern psychiatry, due to the dominating behaviouristic approach, they nevertheless have been thoroughly investigated in continental European psychiatry, where it has been shown that their presence antedates future psychosis. Anomalous experiences of self-awareness (self-disorders) are a sub-group of subjective pathology, and has been hypothesized to constitute a core phenotype of schizophrenic spectrum disorders. Our research team has participated in the development of a self-disorder scale, EASE, based on empirical studies, clinical experience, phenomenological philosophy and existing psychopathological scales. A part of the EASE-items is overlapping the BSABS. These common psychopathological phenomena have been shown to be predictors of later development of schizophrenic psychosis. Results from three separate studies making the basis of the EASE are presented.

**Method:** Drawing on the results of our own three separate empirical studies the distribution of self-disorders in patients with schizophrenia, psychotic bipolar illness, schizotypal disorder and other mental illnesses, and relatives with no mental illness is described.

**Results:** It is shown that self-disorders are common and equally frequent in schizophrenia and schizotypal disorder, and significantly less common among patients with psychotic bipolar illness and other mental illnesses, and almost absent in the relatives without mental illness.

**Conclusion:** The results support the schizophrenia spectrum hypothesis and points to self-disorders as a phenotype of schizophrenia-spectrum disorders. Self-disorders appears to be possible predictors of schizophrenic prodromal states.

### P0134

Structural brain abnormalities in the early phase of schizophrenia

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**Background:** It is well known that schizophrenia is characterized by structural brain abnormalities with neurodevelopmental origin. These abnormalities can be detected with quantitative and structural MRI methods that have an emergent role in psychiatric disorders. In our study we used voxel-based morphometry (VBM) that is the most frequently used structural MRI method.

**Method:** We compared eight patients with first episode schizophrenia and eight, age-matched healthy subjects to detect focal tissue differences in gray and white matter, and cerebrospinal fluids between groups. High resolution T1 weighted 3D MPRAGE structural

volumes were acquired with a 1.0 T Siemens Harmony Expert scanner. Imaging data were preprocessed and voxel based morphometry was performed by SPM2. Optimized VBM method was used.

**Results:** Similar to earlier studies, patients with schizophrenia showed decreased gray matter tissue density in frontotemporal and insular regions bilaterally. Moreover, the left-sided parietal operculum and the calcarina showed focal decrease in tissue density. Frontotemporal and insular white matter density decrease were detected bilaterally similar to gray matter changes. The left sided precuneus and lingual gyrus were also involved in reduced white matter density. Increased cerebrospinal fluid spaces were detected in the frontal regions and the ventricles.

**Conclusions:** We detected structural brain abnormalities in the early course of schizophrenia. Our results with the optimized voxel-based morphometry are in line with earlier imaging studies and correspond with neuropsychologically detectable frontotemporal deficits in schizophrenia.

### P0135

D-serine serum level - a marker of glutamatergic dysfunction in schizophrenia

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**Background:** D-serine acts as an endogenous co-agonist at the glycine modulatory site of the NMDA receptor. Significantly decreased D-serine serum levels were reported in patients with schizophrenia in comparison to healthy control subjects. D-serine improved positive and negative symptoms in patients with schizophrenia treated with antipsychotics. We hypothesized that D-serine serum level might be associated with specific characteristics of psychopathology in schizophrenia.

**Methods:** We enrolled fifty patients with schizophrenia into the study. Positive and Negative Syndrom Scale (PANSS) and The Scale for the Assessment of Negative Symptoms (SANS) were used to assess the symptoms of schizophrenia. D-serine serum levels were measured by High Performance Liquid Chromatography.

**Results:** D-serine serum levels were not associated with PANSS and SANS total and subscales scores in the population of fifty patients. We demonstrated only mild insignificant linear association of PANSS score with D-serine serum level ( $r=0.20$ ) in the group of men ( $n=33$ ). The mild insignificant inverse correlation was found in the group of women ( $n=17$ ) between the total PANSS ( $r=-0.35$ ) or SANS score ( $r=-0.30$ ) and D-serine serum level.

**Conclusion:** We assumed that various biochemical and clinical profiles could lead to identification of specific subtypes of schizophrenia. However, we did not find any significant association between serum D-serine and clinical symptoms in this study. D-serine serum levels had a strong trend to be lower among female patients with schizophrenia as compared to men. The role of gender in the glutamatergic dysfunction associated with schizophrenia deserves further attention.

### P0136

Psychose puerperale : Nouveaux concepts, nouvelles évolutions

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Les manifestations bruyantes de la psychose puerpérale, qui peut éclore non seulement dans le service de maternité, mais quelques semaines après l'accouchement, peuvent être masquées par un tableau de dérèglements affectifs mixtes avec des éléments confusionnels.

A partir de cette situation et surtout quand il s'agit d'un premier épisode, il est difficile de faire la part des choses entre un tableau clinique de dépression sévère de post-partum, psychose puerpérale sans manifestations spectaculaires ou pourquoi pas d'un baby blues prolongé et atypique. La notion des limites diagnostiques dans le domaine reste assez floue.

C'est pourquoi la problématique de repérage diagnostique précis des psychoses puerpérales reste de toute actualité.

Les conséquences de la sous-évaluation d'un premier épisode psychotique apparu en lien avec l'accouchement se situent au niveau d'un retard de la prise en charge de la patiente qui porte ces dérives possibles et pour la mère et pour le bébé, et pour l'entourage (père, fratrie, famille, entourage social).

Nous allons illustrer ces réflexions par quelques exemples. Dans un premier temps, nous allons proposer une description de l'évolution de la psychose puerpérale vers un trouble bipolaire chez l'héroïne principale d'un roman contemporain, Sylvie (Christine ANGOT, Les désaxés, éd. Stock, 2004).

Dans un deuxième temps, nous allons nous arrêter sur trois situations cliniques qui montrent plusieurs facettes de la modalité d'évolution de la surprenante et inattendue psychose puerpérale.

### P0137

A double-blind randomized placebo-controlled study of relapse predictors in remitted first-episode psychosis patients

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**Background:** Medication discontinuation in remitted single episode patients after a period of maintenance therapy is a major clinical decision and thus the identification of risk factors controlling for medication status is important.

**Methods:** Following a first/single episode with DSM-IV schizophrenia and related psychoses, remitted patients who had remained well on maintenance medication for at least one year were randomized to receive either maintenance therapy (with quetiapine 400 mg/day), or placebo for 12 months.

**Results:** 178 patients were randomized. Relapse rates were 33.7% (30/89) in maintenance group and 66.3% (59/89) in placebo group. Potential predictors were initially identified in univariate Cox regression models ( $p<0.1$ ) and were subsequently entered into a multivariate Cox regression model for measuring the relapse risk. Significant