

scores predicted lower intensity ratings accounting for about 10% of the variance in both conditions. EPQ-Extraversion and EPQ-Neuroticism explained 15% of the variance in TTR but in opposite directions. Higher EPQ-Neuroticism scores predicted lower SCR amplitude accounting for 8% of the variance.

Conclusions: Measures of emotional reactivity show distinct patterns depending on experimental condition and personality characteristics.

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The study of brain function in first-episode schizophrenia by functional MRI

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Background and aims: To explore the characteristics of cerebral activation during the performance of WCST in first-episode, drug-naïve schizophrenic patients by functional magnetic resonance imaging, Wisconsin Card Sorting Test (WCST) and Color Card Sorting Test (CCST).

Methods: Twenty healthy adults and twenty schizophrenic patients underwent fMRI with a 1.5T MR imager with gradient echo-EPI sequence during the performance of Wisconsin Card Sorting Test (WCST) and Color Card Sorting Test (CCST). The functional images of two groups were analyzed with analysis software. The active volume of interested brain areas and the performance of WCST were compared between healthy group and patient group. Results: (1) The performance of WCST in first-episode drug-naïve schizophrenic group were significantly lower than the performance in healthy group ($P < 0.01$). (2) The images subtracted the functional images of CCST from those of WCST in healthy group suggested that activations were mainly localized in the bilateral frontal lobe, especially the dorsolateral prefrontal cortex, posterior parietal cortices and anterior cingulate gyrus. (3) The patients group showed less activations in left dorsolateral prefrontal cortex ($P < 0.01$), left anterior cingulate ($P < 0.05$), but more activations in left posterior parietal cortices ($P < 0.05$).

Conclusion: The dorsolateral prefrontal cortex and anterior cingulate of first-episode schizophrenic patients are hypofunction, which may be involved in the executive function disorder in schizophrenia. The hyperactivity of posterior parietal cortices may be able to compensate the hypofrontality in a certain extent.

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Pharmacogenetics of weight gain and obesity following clozapine treatment

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Weight gain is a major problem associated with long-term antipsychotic drug treatment. Clozapine is known to induce particularly profound weight gain. Although the mechanism of it is not clearly understood, the 5-HT_{2C} receptor and leptin are implicated in its development. The present study examined the effects of 5-HT_{2C} and leptin gene polymorphisms on weight change and obesity in the patients on clozapine.

107 patients (mean age 39.5 ± 10.1 y.) meeting ICD-10 criteria for schizophrenia or schizoaffective disorder receiving clozapine took

part in this study. The patient assessment included an interview, measures of weight, height, waist-hip ratio, waist circumference, body mass index (BMI, kg/m²); blood samples were taken for random blood glucose and genetic testing for 5-HT_{2C} and leptin gene.

Central obesity was present in 102 patients as defined by increased waist circumference and obesity in 67 patients as defined by BMI > 30. Type II diabetes was present in 8 patients and type I diabetes in one. In 93 patients (62M, 31F) we assessed change in BMI and weight during treatment which was 2.6 ± 4.2 kg/m² and 7.43 ± 12.35 kg, respectively.

There was no association between 759C/T 5-HT_{2C} receptor and -2548A/G leptin gene polymorphisms with BMI or weight.

No association between 759C/T 5-HT_{2C} receptor and -2548A/G leptin gene polymorphisms was found with change of BMI or waist circumference.

We found no significant association between 759C/T 5-HT_{2C} receptor and -2548A/G leptin gene polymorphisms and changes in BMI or weight in the patients treated with clozapine.

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MEG investigation of abnormal semantic priming in schizophrenia

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Schizophrenia is associated with profound communication disorders resulting in a major social handicap. Hardy-Baylé and colleagues hypothesized that such impairments are related to a failure to process contextual integration. Previous studies based on event related potentials recordings (ERP) during semantic priming tasks have shown that schizophrenic patients have abnormal modulation of the N400 component. Supposedly, this electrical characteristic reflects an abnormal use of semantic context during word processing. However, the neural substratum underlying this pathological phenomenon remains poorly understood. To enrich knowledge inherited from ERP studies, we used magneto-encephalography (MEG) to determine the peculiarities (in anatomical and temporal terms) of the neural generators involved in semantic context integration in schizophrenia. The current study consisted in recording ERP and MEG signals during a French word-pairs lexical decision task (LDT). Subjects had to decide whether “target words” belonged to the lexicon or not, those words being preceded by word primes. The semantic relatedness between primes and targets varied (presence or absence) across two experimental conditions. Data obtained from a group of treated schizophrenic patients are compared to those from a healthy population. We report the preliminary results of schizophrenic subjects demonstrating that semantic priming elicits magnetic signals in the 300 to 500ms time window. Single subject's analysis of ERP and MEG profiles shows that the latter offers a different and complementary access to the brain response associated with LDT. Thus, MEG technique is suitable for investigating schizophrenic semantic priming abnormalities.

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Working memory and executive function: relation to psychiatric candidate genes

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Background and aims: Working memory and executive functions, connected with the activity of prefrontal cortex play an important role in complex mental processes. Wisconsin Card Sorting Test (WCST) is a main tool used for neuropsychological assessment of prefrontal cortex activity. Molecular genetics studies show the association between the performance on WCST and polymorphism of dopaminergic system genes in schizophrenia and healthy subjects, also with polymorphism of BDNF gene in bipolar disorders.

In this study an association between performance on WCST and polymorphisms of selected candidate genes was assessed.

Methods: The study included 200 healthy volunteers aged 18–60 years. Neuropsychological assessment was performed using WCST and following domains were evaluated: perseverative errors (inability to change the reaction), nonperseverative errors (attentional inability to avoid distraction), number of completed categories (ability to utilize new information), percent of conceptual responses (ability of conceptual thinking) and set to complete 1st category (ability to formulate a logical conception). Genotyping were done for polymorphism of dopaminergic: D1receptor (-48A/G) and catechol-O-methyltransferase (COMT108/158Val/Met), serotonergic (5-HTTLPR), glutamatergic: FYNkinase (93A/G, IVS10+37T/C, Ex12+894T/G) and neurotrophic: brain-derived neurotrophic factor (BDNF:C-270T,Val66Met) genes.

Results: A/G polymorphism of DRD1 gene was connected with better results on trials to complete 1st category. Better performance on nonperseverative errors was observed in females with Val/Val genotype of COMT. The C/T genotype of C-270T BDNF polymorphism was associated with higher percentage of conceptual responses.

Conclusion: The results obtained suggest a contribution of studied candidate genes to working memory and executive functions efficiency, connected with prefrontal cortex activity, in healthy subjects.

Poster Session 2: DIAGNOSIS AND CLASSIFICATION ISSUES

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Doctor, can one see worms in a scan? Clinical case of headache attributed to psychotic disorder

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Background: The International Classification of Headache Disorders (2nd. Edition) recognizes, among headaches secondary to psychiatric disorders, the relatively rare ones attributed to psychotic disorders.

The Delusion of Infestation has unknown prevalence. It may occur at any stage, but is more frequent in senior individuals. The rate male-female is 1:1 and 3:1 before and after 50 years old, respectively. The diagnostic classification reveals a great rate of “pure forms” (Delusional Disorder according to DSM-IV or ICD-10), but the syndrome was also described in Schizophrenia, Affective or Organic Psychosis, or even as a neurotic symptom.

The present report describes the case of one 56 years-old woman admitted to a psychiatric ward due to a Delusion of Infestation. This

condition was evolving for several years with the occurrence of both visual and coenaesthetic hallucinations. Complaints were of severe unspecific headaches with delusional believes about its aetiology (brain infestation). No alterations were detected after an organic medical examination. She started antipsychotic and antidepressive medication, with consequent decrease of the delusions. The patient is currently in recovery, referring reduced pain and no delusion ideation.

Aim: To describe a clinical case of headache secondary to Delusion of Infestation.

Material and Methods: Clinical file review, bibliographic review.

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Does actigraphy differentiate ADHD subtypes?

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Objective: Attention deficit hyperactivity disorder (ADHD) is a developmental syndrome expressed along three domains: inattention, hyperactive-impulsive, and combined type. To compare subtypes of attention-deficit/hyperactivity disorder (ADHD) (predominantly inattentive and combined types) and a comparison group on an objective measure of activity level (actigraphy).

Method: Actigraphs were worn by 21 children (19 boys, 2 girls) during 3 full-days clinical diagnostic assessment. 10 subjects had a diagnosis of ADHD predominantly inattentive type, 11 had ADHD combined type. Children were diagnosed as having ADHD by Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition. **Measurements:** ADHD: ADHD Rating Scale DSM IV- Home Version to subdivide children into those with predominantly attention deficit, mainly hyperactivity, and those with both aspects equally. Mean actigraph scores were calculated for three days.

Results: There were no significant group differences in activity level between two groups; there were no differences between ADHD subtypes. There was poor correspondence between parent report and actigraphy.

Conclusions: These data do not support specifications in the DSM-IV regarding hyperactivity in ADHD. Furthermore, the findings contradict specifications in the DSM-IV that suggest that children with ADHD combined type should be more hyperactive than children with ADHD predominantly inattentive type.

Literature References

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Schizoaffective disorder: diagnostic difficulties — about two clinical cases

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Kasanin first used the term “schizoaffective disorder” in 1933, to describe a sub-group of patients with simultaneous schizophrenic and affective symptoms, and relatively good prognosis. Discussions