

three baseline uses and less than 20 years of prior use were associated with abstinence rates of 25, 30, and 42 %, respectively. One of the lessons learned was the potential value of assessing cocaine use during the baseline period prior to randomization. Another lesson learned was the use of both standardized assessments across sites and outcome measures that were also employed within individual sites. This allowed exploratory analyses within sites to determine sensitivity of outcome measures.

S10.04

Behavioural therapies for the treatment of cocaine dependence

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Cocaine, already a significant drug problem in North and South America, has become a more prominent part of the European drug scene. No specific effective pharmacological treatment is available for cocaine addiction, although a number of medications have shown promising results. Behavioural therapies have demonstrated some effectiveness and are currently the standard type of treatment for cocaine addiction. At the present time, Cognitive-Behaviour Therapy (CBT) and Contingency Management (CM) techniques have the strongest empirical support for application with cocaine users. Cognitive behaviour approaches, such as relapse prevention, are grounded in social learning theories and principles of operant conditioning. Several randomised clinical trials have demonstrated the efficacy of cognitive-behaviour therapy (CBT) in the treatment of cocaine-dependent outpatients, particularly more severely dependent cocaine users and depressed. Contingency management approaches are based on principles of behavioural pharmacology and operant conditioning. It is a procedure that decreases the reinforcing efficacy of cocaine via the delivery of reinforcement contingent on abstinence and/or the delivery of punishment contingent on cocaine use. The two most commonly used CM strategies for treating cocaine and stimulant use disorders are voucher-based reinforcement therapy extensively investigated by Higgins and colleagues, and variable magnitude of reinforcement popularized by Petry and colleagues. CBT and/or CM possibly have additive effects when combined with pharmacotherapies.

A variety of other types of behavioural treatment like motivational therapy (MT), community reinforcement and the Matrix model have also been shown to be potent interventions for cocaine addiction. These behavioural interventions, excepted CBT and MT, are not used in France. It seems necessary to evaluate these approaches.

Symposium: Hallucination in children and adolescents: Risk factors and treatment strategies

S13.01

Coupling repetitive TMS with functional MRI for the treatment of drug-resistant hallucinations in children with early onset schizophrenia

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To date, there is an absence of curative treatment for very early onset schizophrenia. The antipsychotic drugs that are currently recommended have very little effect and are often badly tolerated by children. We report a case-study which results show a beneficial and significant efficacy of fMRI-guided rTMS in the treatment of pharmaco-resistant hallucinations. Moreover, rTMS applied over several cortical regions provided the means to reveal for the first time a functional dissociation between auditory-verbal hallucinations and agency impairments. These results demonstrate the efficacy of rTMS for young patients suffering from drug-resistant hallucinations but they furthermore question the physiopathology of the hallucinatory process by suggesting that agency and hallucinations may be subserved by different neural networks.

S13.02

The effectiveness of hallucination focused integrative treatment

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Background and Aims: Early intervention in psychosis is considered important in relaps prevention. Limited results of monotherapies prompt to development of multimodular programmes. Presentation concerns Hallucination focused Integrative Treatment (HIT) integrates specific motivational strategies and family treatment with cognitive behavioural treatment, coping training, medication, targeted psycho-education, crisisintervention and rehabilitation interventions. In patients with chronic schizophrenia effectiveness of HIT appeared significantly greater on subjective burden, control of voices as measured with the AHRS + occurrence of hallucinations, anxiety and depression, global psychopathology as measured with the PANSS, quality of life (WHOqol) and social functioning (GSDS) compared to treatment as usual. Effects remained significantly better during followup (18 months).

Method: Presentation of HIT modules + pilot data of 14 consecutively referred adolescents with AVH.

Results: Good compliance and high satisfaction in most adolescents. 65% free of AVH, substantial improvements on mastery, anxiety, interference with thinking and social functioning.

Conclusion: HIT is feasible in community psychiatry, appears to be an acceptable and effective early intervention in adolescents with AVH.

S13.03

Prevalence and correlates of psychotic-like experiences and other putative antecedents of schizophrenia in children aged 9-12 years

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Background and Aims: Prospective longitudinal investigations are needed to identify causal processes leading to schizophrenia. However, there is presently no cost-effective way to identify children who are at risk of developing schizophrenia spectrum disorders.

Methods: The present study tested the feasibility of screening community samples to identify children, aged 9–12 years, who experience a triad of putative antecedents of schizophrenia identified in previous research, including: (1) speech and/or motor development lags/problems; (2) social, emotional, or behavioural problems; and (3) psychotic-like-experiences. 3410 children and 796 caregivers completed questionnaires.

Results: 12.3% of boys and 8.0% of girls displayed the antecedent triad. Consistent with schizophrenia incidence data, children of African-Caribbean origin presented elevated risk for the antecedent triad relative to white British children. Preliminary results from event-related potential recordings in children presenting the triad ($n=14$; mean age: 11 years, 4 months; mean IQ: 111) and in control children experiencing none of the antecedents ($n=9$; mean age: 11 years, 6 months; mean IQ: 109), indicate brain function abnormalities in triad children. The amplitude of the error-related negativity (Ne/ERN) component elicited by erroneous responses to NoGo trials in a Go/NoGo task, relative to correct responses to Go trials, was reduced in children experiencing the triad (controlling for age and IQ). Similar reduction in Ne/ERN in adults with schizophrenia is thought to indicate deficits in patients' internal monitoring of behaviour.

Conclusions: Questionnaire screening of community samples of children for the putative antecedents of schizophrenia is feasible. Accuracy of identification will be established only by follow-up studies.

S13.04

Does the environment increase sensitivity to develop psychosis in young adolescents?

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Background and Aims: Victimization in childhood may be associated with adult psychosis. This association was examined cross-sectional and longitudinal in the crucial developmental period of early adolescence.

Methods: Data were derived from standard health screenings of the Youth Health Care Divisions of the Municipal Health Services in Maastricht, the Netherlands. A self-report questionnaire was filled out by a total of 1290 adolescents to assess non-clinical psychotic experiences, as well as experiences of being bullied, sexual trauma and life events.

Results: The cross-sectional study showed that unwanted sexual experiences and being bullied were strongly and independently associated with psychotic experiences. In the same sample, it was shown that sexual trauma increased the risk for psychotic symptoms two years later. Life events contributed to the risk for psychosis over time and psychosis in turn gave rise to new life events. No significant association with bullying was found after controlling for confounders.

Conclusions: These results suggest that reported associations between childhood victimization and adult psychosis can be understood in a developmental framework of onset of at-risk mental states in early adolescence. Early and later psychological stress, if severe, may impact on the risk for psychosis in adolescence through mechanisms of person-environment interaction and correlation.

Symposium: Genomic imaging – affect and psychoses

S22.01

A Neuregulin 1 variant associated with altered brain structure and function

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Introduction: Neuregulin 1 is a replicated susceptibility gene for schizophrenia with effects on neuronal migration, axon guidance and myelination. A specific variant of NRG1, SNP8NRG243177, has been found to be associated with NRG1 expression although to date no study has established whether this variant is associated with altered brain structure or function in human subjects.

Methods: Data from 2 studies was used for our analyses. First we examined the effects of SNP8NRG243177 on IQ, Psychotic symptoms and cortical function in the Edinburgh High Risk Study. Secondly, we examined the effects of the same variant on white matter using T1 estimated white matter density and an analysis of fractional anisotropy (FA).

Results: The SNP8NRG243177 T allele is associated with psychotic symptoms, IQ and altered fronto-temporal function in people at high risk of schizophrenia for familial reasons. Secondly, we found that the same variant is associated with reduced density and integrity of white matter at the top of the internal capsule.

Conclusions: Our results add to a growing body of animal and human work supporting a mechanistic role for NRG1 in the aetiology of schizophrenia.

S22.02

Genotype effects on central processing of affective stimuli

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In neuropsychiatric disorders, serotonergic dysfunction may contribute to negative affect in alcoholism and major depression, while dysfunction of central dopaminergic neurotransmission has been associated with motivational disorders in addiction and schizophrenia. Animal experiments revealed that 1) neurodevelopmentally early social isolation stress exposure is associated with altered serotonin turnover and transporters and 2), neurodevelopmentally early lesion of the temporolimbic cortex is associated with increased striatal dopamine release. In human studies, dopamine and serotonin transporters and receptors interact with central processing of reward-indicating and affectively positive and negative stimuli, and specific alterations in these interactions can be observed in schizophrenic, alcoholics and affective disorders. Monoamine effects on central processing of emotionally salient stimuli are genetically influenced, and besides single gene effect, gene-gene interactions have been