

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?

T. Lataster¹, E. De Loore^{1,6}, M. Drukker^{1,3}, N. Gunther¹, F. Feron³, D. Deboutte⁶, C. Henquet¹, J. Van Os^{1,2}, I. Myin-Germeys^{1,4,5}. ¹Department of Psychiatry and Neuropsychology, South Limburg Mental Health Research and Teaching Network, EURON, Maastricht University, Maastricht, The Netherlands ²Division of Psychological Medicine, Institute of Psychiatry, London, UK ³Youth Health Care Division, Municipal Health Centre, Maastricht, The Netherlands ⁴School of Psychological Sciences, University of Manchester, Manchester, UK ⁵Mondriaan Zorggroep, Section Social Cognition, Heerlen, The Netherlands ⁶Collaborative Antwerp Psychiatric Research Institute (CAPRI), University Antwerp, Antwerp, Belgium

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

A.M. McIntosh. *Department of Psychiatry, University of Edinburgh, Edinburgh, UK*

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

A. Heinz, F. Friedel, I. Puls, J. Wrase, J. Gallinat. *Department of Psychiatry and Psychotherapy, Charité University Medical Center, Berlin, Germany*

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

postulated. Additive gene-gene effects are often assumed but difficult to test in behavioral genetics due to the small explained behavioral variance. Processing of unpleasant stimuli in the amygdala has been associated with a functional polymorphism (val158-met) in the catechol-O-methyltransferase (COMT) gene and independently with a functional polymorphism in the regulatory region of the serotonin transporter (5-HTT) gene. 5-HTT function may also be affected by a recently detected A/G exchange in the long allele (insertion) of the 5-HTT regulatory region. In individuals with more COMT met158 alleles and with more s or lg alleles of the 5-HTT regulatory region, aversive stimuli elicited greater neuronal activity in the bilateral amygdalae and hippocampi. These genotype effects were additive on amygdala and hippocampus activation by aversive versus neutral stimuli, indicating that COMT val158-met and 5-HTT genotype were additively associated with increased processing of aversive stimuli in the amygdalae. Functional brain imaging may be used to assess the interaction of multiple genotypes on neuronal activation in neuropsychiatric disorders.

S22.03

Influences of snap-25 polymorphisms on cognition and MRS spectra in psychoses and OCD

P. Falkai¹, H. Scherk¹, M. Backens², T. Schneider-Axmann¹, T. Wobrock¹, W. Reith², H.J. Möller³, B. Bondy³, O. Gruber¹.
¹Department of Psychiatry and Psychotherapy, Georg-August-University, Goettingen, Germany ²Department of Neuroradiology, Saarland University Hospital, Homburg, Germany ³Department of Psychiatry and Psychotherapy, LM University of Munich, Munich, Germany

Background: The SNAP-25 gene is an integral part of the vesicle docking and fusion machinery that controls the neurotransmitter release from the vesicles of the presynaptic neuron into the synaptic cleft. Several post mortem studies revealed a reduction of SNAP-25 protein in the hippocampus of patients with schizophrenia and bipolar disorder.

Methods: 38 patients with schizophrenia, bipolar disorder or obsessive-compulsive disorder and 15 healthy controls participated in the study. Proton magnetic resonance spectroscopy in left hippocampus was performed in each individual. Three single nucleotide polymorphisms (SNP) of the SNAP-25 gene were genotyped.

Results: Individuals with the homozygous CC genotype of the DdeI SNP presented a significantly higher ratio of NAA/Cho in the left hippocampus compared to the group of individuals with the homozygous TT genotype.

Conclusions: The present findings are consistent with the view that the SNAP-25 genotype may modulate synaptic plasticity and neurogenesis in the left hippocampus, and that an altered NAA/Cho ratio may be an indicator for this genetic modulation of neuronal function in the hippocampus.

Symposium: Migrant women - An issue of importance for European psychiatrists

S28.01

Migrant women and their utilization of psychiatric services compared to Danish women

M.C. Kastrup¹, K. Helweg-Larsen². ¹Psych Center Rigshospitalet, Copenhagen, Denmark ²National Institute Public Health, Copenhagen, Denmark

Background: In many ways, female migrants face different life situations and are exposed to different life situations compared to other women, but surprisingly little attention has been paid to gender and migrant status.

Material: A nationwide study was carried out comprising 50,877 persons aged 18-66, who were registered in 2003 in the Danish Psychiatric Register or the National Patient Register with a psychiatric ICD-10 diagnosis.

The population was divided into 5 ethnic groups: 87.1% were ethnic Danes, 7.8% migrants, 4.0% descendants with one Danish born parent, 0.7% descendants with both parents born outside Denmark and 0.3% adoptees. Males comprised 49% women 51% of the population.

The 5 ethnic groups had significant differences in utilization of care, diagnostic distribution and use of coercion.

Results: Women had higher contact rates in all groups apart from migrants.

Among the descendants of mixed background we saw particularly in young women a significantly higher contact rate for nervous disorders, personality disorders, and self-mutilating behaviour compared to young Danish women.

Self-mutilating behaviour was seen more frequently among female off-springs from non-Western countries than among migrant women from non-Western countries

Conclusion: Possible explanations to the ethnic differences in terms of e.g. cultural identity, and gender issues will be outlined as well as ways to fulfil the therapeutic needs of these female populations.

S28.02

Mental health issues of Turkish female immigrants residing in the UK - A follow-up study

D. Kohen. *Lancashire Postgraduate School of Medicine, Leigh, UK*

One hundred consecutive Turkish female immigrants referred by their General Practitioner to a mental clinic between 1998 – 2000 were assessed for their social background, educational, linguistic capabilities and support network. They were assessed for their mental health problems and were given psychiatric diagnosis including mixed anxiety depression, panic attacks, PTSD, obsessionality and severe mental health problems i.e. bipolar affective disorder and psychosis.

7 years later the same cohort were reviewed for their psychiatric problems.

It is interesting to note that 75% of all women who warranted a psychiatric diagnosis on the first assessment were free of symptoms on the second assessment. They had acclimatised to their host country and had improved psychologically.

The study will present the personal and social factors that contributed to the psychological well-being, stability and integration of this cohort.

S28.03

Symposium in migrant women: war rape disclosure in women refugee

C.B. Bonnet. *Paris, France*

Clinical experiences in war areas: Croatia for Bosnian Women, Rwanda and Kabul