

mental instability to which the developing CNS might have been exposed

The aim of the present study was to verify whether cognitive disturbances in schizophrenic patients are associated with FA.

Method: 57 schizophrenic patients (according to DSM-IV criteria) were administered a battery of neuropsychological tests. These tests were: the Wisconsin Card Sorting Test, Continuous Performance Test and the Trail Making Test.

Dermatoglyphic analysis was conducted blind to the neuropsychological results in all the cases. FA was evaluated by taking the absolute difference of the a-b ridge count between right and left hands.

Results: Correlation between FA and the neurocognitive variables used in the present study were calculated. High scores of FA were associated with poorer neurocognitive performance although our results do not reached statistical significance.

Conclusion: These results suggest the interest to explore the prenatal origin of the cognitive impairment in bigger samples.

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S24.03

CAN THE DERMATOGLYPHIC EVIDENCE BE VALIDATED BY MRI IMAGES?

J. van Os

No abstract was available at the time of printing.

S24.04

ASSOCIATIONS BETWEEN DYSMORPHIC FEATURES, DERMATOGLYPHICS AND LATERALISATION IN PSYCHOSIS

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Dysmorphic features, dermatoglyphic abnormalities and atypical lateralisation reflect developmental disturbance and have been shown to occur to excess in schizophrenia. We examine the interaction between these indices of neurodevelopmental disturbance in a sample of individuals experiencing their first episode of psychosis (schizophrenia and affective), a sample with a longer duration of treated illness and matched controls. Findings indicate greater developmental instability in schizophrenia with increased rates of dysmorphic features, lower a-b ridge counts, increased rates of fluctuating asymmetry and atypical handedness. These findings suggest that individuals with schizophrenia may be less able to withstand the usual and often low-grade insults and stresses associated with development.

S24.05

ASSOCIATION BETWEEN CEREBRAL STRUCTURAL ABNORMALITIES AND DERMATOGLYPHIC RIDGE COUNTS IN SCHIZOPHRENIA

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Dermatoglyphic ridge counts i) reflect ontogenic processes during the second trimester of pregnancy, and ii) can be influenced by some of the factors that also affect cerebral development. Therefore, the demonstration of an association between dermatoglyphic

and cerebral structural measures in patients with schizophrenia would give credence to the view that the structural brain abnormalities associated with this disorder have their origins early in development. Twenty-eight male subjects with schizophrenia and 19 male controls underwent MRI scanning and dermatoglyphic analysis. The pattern of associations between ab-ridge count and 9 MRI features was dissimilar in cases and controls for 2 measures. Associations between dermatoglyphic features on the one hand, and frontal CSF ($r = 0.54$, $P = 0.004$) and fourth ventricular volume ($r = 0.38$, $P = 0.05$) on the other, were larger in the cases than in the controls (test for interaction $P = 0.06$ and $P = 0.08$ respectively). These findings, while in need of replication, support the view that the cerebral structural abnormalities seen in patients with schizophrenia are the result of an early pathological process impacting on the development of foetal ectodermal structures.

S25. Part I. Biomed collaborative studies in Europe: results and perspectives

Chairs: M. Maj (I), C.B. Pull (LUX)

S25.01

THE EPSILON STUDY OF SCHIZOPHRENIA IN FIVE EUROPEAN COUNTRIES

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Care for people with schizophrenia was assessed cross-sectionally in five European centres in Amsterdam, Copenhagen, London, Santander and Verona. Research instruments assessing needs, service use and costs, informal carer involvement, quality of life, and service satisfaction were subjected to a conversion procedure (translation, back-translation, focus groups). European instrument versions proved to be reliable. There was substantial variation in the provision of acute and non-acute hospital places and in residential service provision with more acute hospital places in Copenhagen and Amsterdam, few in Santander and Verona and most residential places in Copenhagen. 404 patients with a SCAN diagnosis of schizophrenia were interviewed. Numbers of total needs and unmet needs (not met needs) differed significantly, with most needs in Amsterdam and London. The total annual cost per patient for the combined sample was an estimated £5,038 (95% CI £3,888–6,237), and there were significant differences in service utilisation and costs between the sites. With respect to caregiving consequences there were some differences along a North-South axis (some scores higher in Mediterranean sites). Variation in the patient samples between sites was controlled for in the analyses. In accounting for the differences observed between study centres, cultural differences and variations in the provision of mental health care should be considered.

S25.02

THE PREVENTION OF CRIME AND VIOLENCE AMONG THE MENTALLY ILL

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Increasing numbers of persons with major mental disorders commit nonviolent and violent crimes. The cost to society, in both financial and human terms, is high.

Studies to date suggest that offenders with these disorders present multiple difficulties and that in order to prevent further offending it is necessary to specifically address each of these difficulties. The present study was designed to: (1) identify the components of treatment, social services, and laws that effectively prevent crime among persons with major mental disorders; (2) to verify if different types of patients require different treatment programmes; (3) to measure the impact of varying legal powers of clinicians to enforce compliance with treatment; (4) to assess the predictive validity of the HCR-20 in determining the risk of violence; and (5) to assess the validity of hair analysis for measuring medication use and alcohol and drug consumption. In each of four sites, Canada, Finland, Germany and Sweden, two samples of patients with major mental disorders are recruited, one with and one without an official record of crime. As they enter the study, detailed historical information is collected from files and collaterals and they are intensively examined. During the next two years, they are repeatedly examined, collaterals are questioned, all the treatments and services that they receive are documented as well as criminal activities and aggressive behaviours.

S25.03

THE BEHAVIOURAL PSYCHOPATHOLOGY OF BLOOD DISORDERS. A CROSS-NATIONAL STUDY

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There are known higher levels of secondary psychological problems amongst children with Chronic Illness. Although there is some evidence of this in children with β -thalassaemia, the evidence is conflicting for children with haemophilia. This study addresses these themes in children from families with haemophilia or β -thalassaemia.

Children with haemophilia were half as likely to receive a diagnosis of psychiatric disorder and less likely to show a higher degree of impairment of general functioning and social dysfunction than thalassaemic boys. That was true too when children with thalassaemia were compared with their siblings. Clinical severity of haemophilia or thalassaemia was not associated with significant differences in prevalence of child psychiatric disorders or impairment or social dysfunction.

The relatively low prevalence of psychiatric impairment and social dysfunction in boys with haemophilia may be related to therapeutic advances that enable them to lead an almost normal life. The high prevalence of psychiatric impairment and social dysfunction, in children with β -thalassaemia reported in this study suggests that different blood disorders are associated with a different impact.

S25.04

THE EURO-MDSBL PROJECT: DEVELOPING COMMON STANDARDS FOR THE ASSESSMENT OF DISABLEMENT IN MENTAL AND NEUROLOGICAL PATIENTS IN SIX EUROPEAN COUNTRIES

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The Euro-MDSBL project deals with the application of the ICIDH-2 in mental and neurological disorders and the development of dedicated assessment instruments for disablement, which can be

used, in both mental and physical disorders. It involves collaboration of six research centres from Greece, Italy, Luxembourg, the Netherlands, Spain and the UK. The network is functioning within the context of the WHO collaborative study of assessment instruments for disablements. The study involves the use of both qualitative and quantitative methods. The first phase, (Cross-cultural Applicability Study), involved the collection of data related to the effects cultures exert on the definition of the concept and domains, facets and severity of disablement. Through this procedure, the concepts of disablement were assessed at a very deep level and this study offered valuable insights and understanding, in order to reach to a classification and instruments applicable across cultures. After these studies, the findings were incorporated into the draft instrument (WHODAS-II). As a pre-test, 254 individuals from the six centers we assessed. Cases came from the following 5 populations: individuals with physical health problems, mental health problems, and alcohol problems, problems due to illicit drugs and general population. The study continued with the main study (reliability and validity) of the final instrument. A minimum of 100 individuals per site was assessed with the final WHODAS-II (34-item version) and other instruments assessing functioning and quality of life. This phase has also been completed. The results have shown the instrument to possess high test-retest reliability and validity across all six centres. The Euro-MDSBL is funded by the BIOMED-2 program (concerted action BMH 4-98-3388) and the WHO collaborative study for the assessment of disablement.

S26. Metabolism of amino-acids and synthesis of β -carbolines in relation to psychopathology

Chairs: L. Peplinkhuizen (NL), W.M.A. Verhoveven (NL)

S26.01

THE INTERRELATIONSHIP BETWEEN AMINO ACIDS AND β -CARBOLINES

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The amino acid tryptophan is not only the precursor of serotonin and nicotinamide, but also of the aromatic alkaloids called β -carbolines. The endogenous tetrahydro- β -carboline (THBC) may be formed by cyclisation of indoleamines or tryptophan with aldehydes or α -keto acids. The dehydrogenated form of THBC, the fully aromatic and lipophilic β -carboline norharman, is present in several mammals. The source of norharman in humans may also be from outside, because this substance is present in various foodstuffs as well as in some alcoholic beverages and tobacco smoke.

Specific binding sites of norharman have been demonstrated in rat brain, while this β -carboline has also low affinity for the benzodiazepine receptor. When injected in animals, norharman causes tremors, induces pro-conflict behaviour, convulsions, a decrease in motor and exploratory activity, sedation and muscle relaxation. The variation in the plasma concentrations of norharman in humans has been related to several psychopathological states, e.g. alcoholism, heroin addiction, psychoses and panic disorder.

The formation of β -carbolines, such as norharman, has been demonstrated tentatively in patients with acute polymorphic psychoses. In experiments with rats, the formation of norharman has