

Attention Deficit and Hyperactivity – Impulsivity Disorder (ADHD) is often defined as the disorder of the 21st century. ADHD is quite a frequent disorder, highly heritable and the person who is suffering from it can easily be influenced according to the situation in which he is in. Hence, children and adults who suffer from ADHD can suffer from a broad spectrum of pathologies, as well as functioning in their everyday lives. We suggest that these characteristics are typical to a radical characteristic and not to a disorder in the general way that is accepted upon society. Accordingly we define what is a radical characteristic and what is a disorder, and demonstrate how ADHD meets that definition including all its organic, psychological and social aspects

Wednesday, April 6, 2005

C-20. Educational course: Treatment of sexual abusers

Course director(s): Paul Cosyns (Edegem, Belgium), Elda Mincke
08.30 - 12.00, Hilton - Salon Orff

Educational objectives: The participant will learn to diagnose, assess and establish a treatment plan for sexual abusers. The course rests on the relapse prevention model and the cognitive and behavioural treatment approach. The participant will be familiarized with the treatment of cognitive distortions, of empathy feelings and the (pharmacological) treatment of the sexual drive. Course description: - Key-concepts: sexual abuse as a social deviance and/or a psychiatric disorder (paraphilia or disorder of sexual preference). Ethics and features of the judicial coerced treatment. - The cognitive behavioral treatment program as a therapeutic process. - The relapse prevention model of sexual abuse. - The treatment of cognitive distortions. - The pharmacological control of sexual drive.

Course methods and material : Power-point presentation with hand-outs and discussion of clinical cases (vignettes).

Sunday, April 3, 2005

O-02. Oral presentation: Personality and behavioural disorders

Chairperson(s): Paul Cosyns (Edegem, Belgium), Arnstein Mykletun (Bergen, Norway)
14.15 - 15.45, Holiday Inn - Room 7

O-02-01

Risk of suicide after attempted suicide

S. Zihlerl, B. Zalar. *University Psychiatric Hosp., Ljubljana, Slovenia*

Objective: All suicide attempts cannot predict suicide commitment. The aim of our study was to examine those characteristics of suicide attempt which could most accurately predict completed suicide.

Methods: Subjects were all individuals registered as committed suicides (N=16.522) or attempted suicides (N=15.057) in the Register of Suicides of the Republic of Slovenia between 1970 and

1996. Log linear analysis of a frequency table was used to uncover relationship between categorical variables.

Results: We found the model which fit between variables: mode, number of repetitions and type, then between number of repetitions, type and gender, and between mode, type and gender.

Conclusion: Our data suggest that clinicians should heighten their awareness that any suicide attempt can in some 20% predict suicide. At a highest risk is someone who has attempted suicide by hanging.

O-02-02

Suicide attempts in Basel (Switzerland) 2003-2004

P. Berger, M. Eichhorn, A. Riecher-Rössler. *University Hospital Psychiatric Outpatient Dept., Basel, Switzerland*

Objective: To analyse the psychiatric and cultural specificity of suicide attempts of Turkish immigrants.

Methods: In the context of the WHO/EURO multicentre study on parasuicide we recorded all suicide attempts of inhabitants of Kanton Basel-Stadt in the years 2003 and 2004. Most of the suicide attempters were treated at first in the emergency department of the University Hospital. From there, if medically indicated, they were transferred to the intensive care unit, the crisis intervention unit (KIS) or the University Psychiatric Hospital of Basel. To assure a complete recruitment we regularly contacted all hospitals of Basel and surroundings, general practitioners and psychiatrists. We recorded sociodemographic data, information about context and methods of the suicide attempt as well as psychiatric and medical diagnoses. Suicide attempts were defined according to the WHO criteria.

Results: In the 2003 we recorded 228 suicide attempts, 156 women and 72 men (quotient 2,16), which correspond to a rate of 144,1/100'000 inhabitants for women and 87,4/100'000 for men. The rate of suicide attempts for immigrants from Germany, Ex-Yugoslavia and Southern Europe was comparable to data from the respective countries of origin. But Turkish immigrants showed a rate of 362/100'000 Turkish inhabitants, which is not only significantly higher than the rate of Swiss people, but also higher than the rate known from Turkey. Most of these Turkish suicide attempters were young women.

Conclusion: Identifying risk factors for deliberate self-harm, with reference to specific cultural influences, could permit selective preventive interventions.

O-02-03

Homicide of women by intimate partners - femicide

R. Kovacevic, B. Kecman. *KPD-bolnica (Prison hospital) Forensic psychiatry, Belgrade, Yugoslavia*

Objective: Homicide of women (femicide) by intimate partners is only one type of family homicide. Marriage and family are legal and habitual arranged institutions. Homicide is the act of malign aggression and present negation of marriage, family and life at all.

Methods: We studied 90 male offenders who committed homicide of women (femicide). All of them are examined on the Department of forensic psychiatry in Prison hospital in Belgrade, during the period between January 1, 1992, and December 31, 2002. For this research, we constructed special questionnaire with the different groups of questions for detail analyzing lives of offenders. The results are worked out by descriptive and differential statistical

methods. Aim: Identification of psychopathological and criminological characteristics of offenders of homicide, identification criminogen factors in psychics status of offenders during the homicide, and analyze eventual role of victim in homicides.

Results: Male who committed homicide of women, are persons with normal intelligentsia, but persons with emotional instable, egotism and paranoid characteristics. The most frequent factors that start homicidal behavior are psychotic symptoms, reactive affective state generated by situation and alcohol intoxication. Mostly, victims were not act provocative.

O-02-04

Newer antidepressants - a principal factor in preventing suicide

L. Sondergard, L. Kessing, K. Kvist, P. K. Andersen. *Rigshospitalet Psychiatric Department 623100, Copenhagen Ø, Denmark*

Objective: As in many developed countries, the use of antidepressants in Denmark has been substantially increasing during recent years coinciding with a decreasing suicide rate. This suggests a putative protective effect of antidepressants. In this study we aim to investigate this relationship on individualized data.

Methods: We obtained data from three Danish registers in an historic prospective national pharmacoepidemiological register linkage study. We included 438,625 patients who had purchased antidepressants over a five-year period, according to prescriptions and number of dispatches, and compared them with 1,073,862 population based control persons who had not purchased antidepressants. The risk of suicide was estimated using Poisson regression analyses.

Results: For patients treated with SSRIs and newer non-SSRI antidepressants, respectively, we found a significantly decreased suicide rate among those who purchased two or more dispatches compared to the rate for those who purchased only a single dispatch. Purchasing SSRIs at least twice was associated with a 0.59 [95% CI 0.50-0.68] and 0.72 [95% CI 0.58-0.88] reduced rate of suicide for men and women, respectively, compared to the rate when purchasing SSRIs once only. Further, the suicide rate decreased with increasing number of purchased dispatches. In contrast, for patients treated with older antidepressants, those who purchased two or more dispatches had a suicide rate similar to the rate for those who purchased a single dispatch.

Conclusion: For the individual patient, antidepressant treatment with SSRIs and newer noradrenergic acting antidepressants seems to be a principal factor in preventing suicide.

O-02-05

Mortality in relation to anxiety and depression

A. Mykletun, *Research Centre for Health Pro Dep. of Psychology, Bergen, Norway*

Objective: From the literature we know that depression is a risk-factor for mortality in the general population as well as in various clinical populations. (1) Whether anxiety has a similar effect on mortality is still unclear, as is also (2) the effect of milder levels of depression. (3) Beyond coronary heart diseases (CHD) and suicide, there is also little knowledge about the mechanisms that are involved in the association between depression and mortality. These three issues constitute the aims of the present study.

Methods: Information on anxiety, depression and somatic health status was obtained by self-report and clinical examinations in the context of the Health Study of Nord-Trøndelag Conunty (HUNT-II) in 1995-97. Mortality as the end-point was obtained from the National Mortality Registry by record linkage. Anxiety and depression was measured by the Hospital Anxiety and Depression Scale (HADS).

Results: (1) Adjusted for physical health at HUNT-II, high levels of both anxiety and depression were associated with mortality, though stronger for depression than for anxiety. However, also low level of anxiety (that is within the first quartile) was associated with mortality. (2) The impact of depression on mortality was found also for very low levels of depression, far lower than the conventional clinically used cut-offs for

Conclusion: There are three new findings from our study: (1) The U-shaped effect of anxiety on mortality (which we suggest might be an effect of risk-taking behaviour in individuals with very low levels of anxiety), (2) the effect of very low levels of depression on mortality (levels commonly regarded below any clinical relevance), and (3) that a broad range mortality diagnoses are associated with anxiety/depression.

O-02-06

Severe personality disorders in the offspring of antenatally depressed mothers - a 31 year follow-up of the Northern Finland 1966 Birth Cohort

P. Maki, P. Mäki, J. Veijola, M. Joukamaa, P. Rantakallio, J. Jokelainen, L. Kantojärvi, M. Isohanni. *University of Oulu Psychiatry, University of Oulu, Finland*

Objective: Maternal depression is common both during the ante and postnatal period. Prenatal depression has been connected to externalizing problems in children. Postpartum depression has been considered a risk for mental distress of the children and young adults. We studied the association between maternal antenatal depression and severe personality disorders in the young adult offspring.

Methods: At midgestation mothers of 12 058 babies in the Northern Finland 1966 Birth Cohort were asked at the antenatal clinic if they felt depressed. The general population birth cohort was followed up 31 years. Those offspring of the cohort, who appeared on the Finnish Hospital Discharge Register between the years 1983-97, were identified. All psychiatric diagnoses were checked against DSM-III-R criteria.

Results: Of the mothers of the offspring, 14 % felt depressed during pregnancy. The cumulative incidence of the hospital-treated personality disorders was 2.4 % in the male offspring of depressed mothers and 0.6 % in the sons of non-depressed mothers ($p < 0.001$). The corresponding numbers for female offspring were 0.8 % and 0.3 % respectively ($p < 0.05$). When adjusted for mother's marital status and place of residence at the child's birth, maternal smoking, age and parity and parental socioeconomic status during pregnancy and mother's wantedness of pregnancy and perinatal complications, the risk was elevated for borderline personality disorders 10-foldly and for antisocial personality disorders 3-foldly in the male offspring of antenatally depressed mothers.

Conclusion: Mothers' self-reported depression during pregnancy predicted severe personality disorders in their offspring, especially hospital-treated borderline and antisocial personality disorders in men.

O-02-07

Outcome and follow up of treatment of personality disorders

E. Fabian. *Klinik Mengerschwaige, München, Germany*

Objective: Evaluation of outcome of an inpatient dynamic psychiatric treatment of patients with personality disorders.

Methods: The outcome and effectiveness of treatment of 144 patients with personality disorders is to be evaluated in three times of measurement: admission, discharge and follow up of three to four years. Included to the study are all patients of the Dynamic Psychiatric Hospital, Munich, in the year 2001 who meet the criteria of diagnosis, regularly discharge and a minimum treatment time of 14 days.

Results: As shown with psychometric instruments and symptom scales like the SCL 90, the BDI and the IIP, social data (occupational state, social relationships) and data of further treatment, patients do best, who continue therapy in an outpatient setting and who are able to activate their constructive, healthy resources. Duration of inpatient treatment has a strong impact on outcome.

Conclusion: Treatment of patients with personality disorders takes time and has to integrate different inpatient and outpatient therapeutic concepts.

O-02-08

Anticipatory fear in violent schizophrenia and personality disorder subjects: A functional mri study

D. Mrigendra, V. Kumari, I. Barkakati, P. Taylor, T. Sharma. *Broadmoor Hospital, Crowthorne, United Kingdom*

Objective: Incidents of violence in severe mental disorders like schizophrenia and, personality disorders are higher than in the general population. Previous research has reported impaired emotion processing in these disorders, and neural circuits involved in emotional processing may underlie violent behaviour. This study therefore explored the neural correlates of anticipatory fear, in four groups of men: (i) Personality disorder with history of extreme violence (n=13), (ii) schizophrenia with history of extreme violence (n=13), (iii) schizophrenia with no history of violence (n=13), and (iv) matched control subjects (n=14).

Methods: The experimental paradigm involved inducing a state of anticipatory fear in the subjects inside the scanner by repeated presentation of a control condition ('safe') followed by presentation of an activating condition ('shock'). Before going into the scanner, subjects were delivered a mild electric shock by a stimulator in the 'shock' condition off line. The subjects were then instructed that they would receive a similar shock (stronger than the one example they received before the scan) during the 'shock' condition inside the scanner.

Results: Results in the healthy controls in the shock versus safe conditions indicated activation in the right medial/inferior frontal gyrus, left superior temporal gyrus, and right Insula. In the non-violent schizophrenia patients activation was noted in the bilateral inferior frontal gyrus and left insula. Patients with history of violence did not show any significant areas of activation during this condition.

Conclusion: These results indicate abnormalities in the neural circuits underlying the experience of fear in violent schizophrenia and personality disorder subjects.

O-02-09

Amygdala and emotions – investigation of gender and cultural differences in facial emotion recognition

B. Hoheisel, U. Habel, C. Windischberger, S. Robinson, I. Kryspin-Exner, E. Moser. *Kompetenzzentrum Hochfeld MR Medizinische Universität Wien, Wien, Austria*

Objective: Recognizing emotions in facial expressions is essential for successful social interaction. Patients suffering from psychiatric disorders characterized by social and emotional impairments such as schizophrenia, show a reduced capability in recognizing facial emotional expressions. This social-cognitive competency relies on a widespread subcortical-limbic and cortical network. The amygdala seems to play a crucial role in this, especially for processing fearful stimuli. Its impact on the recognition of other „basic emotions“ is not fully clear. Understanding the neurobiological basis of discriminating different emotional qualities in a facial expression seems to be highly relevant for characterizing psychiatric disorders with emotion recognition impairment aspects. Also, methodological influences such as the accuracy of measurement, data quality and culture or gender differences must be taken into account in order to adequately interpret clinical findings.

Methods: To analyze and consider these factors we investigated 40 healthy subjects (20 female, 20 male) of various cultural backgrounds during a facial emotion recognition task with a 3 Tesla whole body scanner (Medspec Bruker, Biospin). We used a specially optimized protocol to reliably detect amygdala activation. Sex hormone assessment was used for the correlation with functional data to control for such influences on cerebral correlates of gender differences. Cultural differences in brain activation during emotion discrimination have also been analyzed.

Results: Our data show robust amygdala activation and emphasize the critical role of the amygdala in processing emotions in facial expressions independent of the expressed valence as well as culture and gender differences.

Conclusion: The amygdala emerged as a crucial node of emotional evaluation in the early stages of processing. Nevertheless, gender and culture seem to exert a modulating influence on its activation, indicating relevant factors that have to be considered in clinical studies.

O-02-10

The serotonin transporter polymorphism may modulate severity of adult ADHD symptoms in conjunction with adverse life events

D. J. Müller. *Charite Berlin Abt. für Psychiatrie, Berlin, Germany*

Childhood ADHD may persist into adulthood where it reaches prevalence rates of 1-4%. Family, twin and adoption studies strongly suggest that ADHD is a complex genetic disorder; thus occurrence of specific environmental circumstances is likely to influence etiology/severity of ADHD. We tested whether severity of adult ADHD (measured by the Brown Attention Deficit Disorder Scale) was associated with adverse life events (ALE) moderated by a functional promoter polymorphism of the serotonin transporter gene (5-HTTLPR). The study included 110 patients and occurrence of ALE were assessed for a large variety of circumstances (e.g., physical/sexual/verbal abuse; separation/death of parent/close relatives, medical conditions). Overall, findings showed a significant association between higher scores of ALE and severity

of ADHD ($F=4.16$, 2df, $p=.01$). The 5-HTTLPR was not associated with adult ADHD ($F=2.11$, 2df, $p=.12$). However, a trend was noted between severity of ADHD and ALE moderated by 5-HTTLPR: Patients with the l/l genotypes were less severely affected with ADHD symptoms when they experienced fewer or moderate ALE than patients with s/s genotypes, although this relationship was not seen in patients with highest ALE scores ($F=2.47$, 4df, $p=.05$). Our preliminary findings suggest that the 5-HTTLPR may moderate the association of ALE with ADHD symptoms severity.

Tuesday, April 5, 2005

P-16. Poster session: Personality and behavioural disorders

Chairperson(s): Constantin Soldatos (Athens, Greece), Gil Zalsman (New York, NY, USA)
18.00 - 19.30, Gasteig - Foyers

P-16-01

Haplotype association study between DRD1 gene and parasuicide in bipolar disorder: Analysis of two samples from Canada and Sardinia

V. De Luca, V. De Luca, G. Severino, X. Ni, P. Picardi, A. de Batolomeis, A. Squassina, G. Muscettola, J. L. Kennedy, M. Del Zompo, D. Congiu. *University of Toronto Psychiatry, Toronto, Canada*

Objective: Dopaminergic neurotransmission has been implicated in suicidal behaviour.

Methods: In our study, three SNPs of the DRD1 gene, -800T/C, -48A/G, and 1403T/C, were analyzed in 81 trios with at least one Bipolar patient that attempt suicide from Toronto and 31 attempters within a sample of 206 bipolar patients from Sardinia. Both the transmission disequilibrium test (TDT) and allele case-control association were performed on the genotype data to test for the presence of linkage disequilibrium between DRD1 and suicide attempt as phenotype. With the haplotype transmission disequilibrium test and haplotype case-control association (COCAPHASE), we also calculated the haplotype frequencies in Bipolar patients with and without suicide attempt.

Results: Although no allele association was found in the Toronto trios and in Sardinia sample, the trend in the two samples had the same direction for all three SNPs, furthermore when we combined the two samples we found significant association for -1403C ($p=0.05$). When we look at the haplotypes we found that the global chi-sq was not significant in both sample, however the haplotype -800C/-48G/+1403C was highly significant $p=0.0006$ with a Relative Risk of 5.6 in the combined sample.

Conclusion: These results indicate that the -800C/-48G/+1403C haplotype in DRD1 gene may play a role in the aetiology of parasuicide in bipolar disorder patients.

P-16-02

Correlates of platelet serotonin transporter binding, serotonin transporter promoter polymorphism, and clinical phenotype in ashkenazi suicidal adolescent

G. Zalsman, G. M. Anderson, M. Peskin, A. Frisch, L. Giner, R. A. King, M. Vekslerchik, E. Sommerfeld, E. Michaelovsky, L. Sher, A. Weizman, A. Apter. *Columbia Neuroscience, New York, NY, USA*

Objective: to investigate the relationships between the 5-HTTLPR genotype, the clinical phenotype of suicide-related traits and serotonin transporter (SERT) binding density as an endophenotype in a population of psychiatric inpatient adolescents

Methods: Sixty Jewish Ashkenazi origin patients admitted over a period of two years to the adolescent psychiatric department were divided into those with recent suicide attempt ($n=32$) defined as having a score ≥ 3 in the Suicide Potential Inventory (SPI), and non-suicidal control group ($n=28$). Exclusion criteria were diagnosis of mental retardation, organic brain syndrome and non-mastery of Hebrew

Results: The 5-HTTLPR polymorphism was not associated with transporter binding or with suicidality or other clinical phenotypes. However, a partial correlation was performed between SERT binding and trait anxiety with controlling for the effects of state anxiety. The results showed a significant negative correlation between trait anxiety and number of platelets ($n=32$; $r=-.42$; $p=.034$) in the suicidal group and no such correlation in the non-suicidal group. In addition, in the whole group, a significant negative correlation was found between number of platelets and the SPI score, controlling for the effects of state anxiety ($n=60$; $r=-.23$; $p=.040$). These findings were not significant if corrected for multiple comparisons

Conclusion: State anxiety may be correlated with number of platelets in suicidal adolescents. These findings should be judged with caution since the sample is small. The complex relationships between suicidal behavior, anxiety, serotonin transporter genotype, transporter expression, and platelet count merit further investigation in a larger sample of adolescents and adults.

P-16-03

Identification of differentially expressed genes in the brains of suicide victims; a microarray analysis

A. Thalmeier, I. Giegling, I. Dietrich, B. Schneider, H. Bratzke, A. Schnabel, K. Maurer, H. Möller, D. Rujescu. *University of Munich Psychiatry, Munich, Germany*

Objective: Suicide is a major public health problem, causing more than 10.000 deaths in Germany each year. Adoption and family studies indicate that suicidal behaviour has a heritability of about 40-60%, but the responsible genes have yet to be identified.

Methods: We conducted a large-scale gene expression analysis using cDNA-microarrays to identify new candidate-genes for suicide. RNA was isolated from post mortem brain tissue of subjects who died by suicide and control subjects who died from other causes. The two groups were matched by tissue-pH, age, gender and post mortem interval. RNA quality and integrity was assessed by evaluation of the 18S and 28S ribosomal units. The quantity was measured by determination of absorbance at 260 nm and a RiboGreen assay. After reverse transcription, the obtained cDNA was fluorescently labelled and hybridized to cDNA arrays.

Results: We found several genes to be differentially expressed in the cortex of suicide completers.

Conclusion: Cross-validation experiments using quantitative RT-PCR are under way.