

A.V. Andreoli. *Psychiatry Department, Service D'accueil, D'urgences Et de Liaison Psychiatriques, HUG, Geneva, Switzerland*

Over the last several years diagnostic research made significant conceptual and methodological advances but acute mental disorders still remain almost neglected from international classifications. This is becoming, however, an area of growing concern with considerable relevance to mental health policies: an increasing number of patients seek for acute/emergency treatment with atypical symptoms yet classic diagnostic categories do not adequately describe the multiple co-morbidities and unpredictable course of these disorders. To capture a number of exquisite clinical characteristics that may be a putative target of innovative treatment programs on the changing scene of emergency psychiatry and acute psychiatric treatment, this report will introduce the concept of "new acute mental patient" a condition at the crossroad of dissociative disorders, mood disorders and personality disorders among patients exposed to traumatic life events. The validity of this diagnostic construct and its relevance to outcome research will be further investigated utilizing the data basis from longitudinal studies.

S53.02

Learning from the longitudinal course of concurrent traumatic life events, major depression and personality disorders

Y. Burnand, G. Rubovszky, D.I. Maire. *Service D'accueil, D'urgences Et de Liaison, HUG, Geneva, Switzerland*

Background and Aims: Traumatic stress/dissociation, major depression and borderline personality disorders exhibit extensive overlapping and appear to be both concurrent and sequential over time. The purpose of the study was to conduct a longitudinal investigation of the association of these diagnostic dimensions over time among acutely suicidal patients. An additional aim was to determine which symptom co-variance profile was associated with the most acute clinical phase of the disorder, treatment failure and service consume.

Methods: 100 patients aged 18-55, referred to emergency room with major depression, borderline personality disorder and traumatic life event were prospectively investigated in a naturalistic follow-up design.

Results: Subjects almost recovered early in the follow-up (3 month and 6-month) from all disorders. The analyses indicated that traumatic stress/dissociation but not major depression and borderline personality disorder are a factor in the suicidal crisis of these patients. Comment. Stress related dissociative disorder may be an underestimated factor among acutely suicidal patients requiring intensive treatment.

S53.03

Integrating emergency care, crisis intervention and acute treatment at the general hospital: Efficiency and costs

P. Ohlendorf, D.I. Maire, M.F. Cochenec. *Service D'accueil, D'urgences Et de Liaison Psychiatriques, HUG, Geneva, Switzerland*

Backgrounds and Aims: We assessed the efficiency and costs of an innovative emergency service focusing on specialized evaluation and intensive treatment for the new acute mental patient.

Methods: A computerized register provided continuous evaluation of the impact of the new unit on the global patient flows in a 500.000 inhabitants catchment area during 5 years. Furthermore, we carefully assessed the all population treated at the emergency

room and the subpopulation population assigned to crisis intervention at the General hospital at emergency room discharge during 2-months. The efficiency and costs were investigated with: a) pre-post analyses (global flows), b) assessing the reliability of decision processes according to pre-established decision guidelines.

Results: Well integrated, diagnostic assessment, acute treatment and crisis intervention for the new acute mental appeared to dramatically improve the efficiency of a large system of community psychiatry services.

Comment: The study suggests that the emergency treatment of the new acute mental patient deserves more study.

Symposium: Impulsivity, compulsivity and addiction

S29.01

The role of impulsivity in the pathogenesis and treatment of addiction

W. Van Den Brink. *Amsterdam Institute for Addiction Research, University of Amsterdam, Amsterdam, The Netherlands*

Research on pathogenesis and treatment has long been concentrated on the problems involving abnormalities in the reward and motivational system. However, current research also looks at decision making, including both error detection and behavioral inhibition. It is assumed that compulsive use and relapse in patients with a substance use disorder or with pathological gambling are the result not only of excessive salience of drug related stimuli but also of impaired error detection and behavioral disinhibition.

In this presentation an overview will be given of the research on decision making in alcoholics, drug addicts and pathological gamblers. The data show that patients with both chemical and non-chemical addictions have serious problems with error detection and behavioral inhibition independent of the presence of antisocial or borderline personality disorders. Recent data also show that ex-addicts have fewer problems with behavioral inhibition, indicating either pre-existing normality or improvement after abstinence. The fact that patients with low levels of behavioral inhibition relapse more frequently supports the first explanation. It, therefore, seems important to improve decision making in patients with addictive behaviors, using pharmacological interventions (cognitive enhancers), neurophysiological techniques (biofeedback) or psychotherapeutic treatments (training).

S29.02

Neurobiological correlates of impulsivity and addiction

A. Heinz. *Charite University Medicine, Berlin, Germany*

In alcoholism, central serotonergic dysfunction may contribute to negative affect and impulsive aggression. In animal experiments and human studies, serotonin transporters and receptors interact with central processing of affectively negative stimuli. Monoamine effects on central processing of emotionally salient stimuli are genetically influenced, and besides single gene effect, gene-gene interactions have been postulated. 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 IG alleles of the 5-HTT regulatory region, aversive stimuli elicited greater neuronal activity in the bilateral amygdalae and hippocampi. These genotype effects were additional to amygdala and hippocampus activation by aversive versus neutral stimuli, indicating that COMT val158-met and 5-HTT genotype were additionally associated with increased processing of aversive stimuli in the amygdalae. Functional brain imaging may be used to assess the interaction of multiple genotypes with anxiety and impulsive aggressiveness in alcohol-dependent patients.

S29.03

Uncovering decision making strategies in drug misusers

C. Newman. *University of Nottingham, Nottingham, UK*

Decision making research continues to generate new approaches to understanding addiction, in relation to developing interconnected concepts of myopia, hypersensitivity to reward and hyposensitivity to punishment. Despite high levels of inter-subject variance in former studies, little progress has been made in describing how individuals differ in terms of their decision-making strategies and behaviours within these decision-making tasks. A study was undertaken to develop methods for analysing and describing adapting response behaviours within a decision-making task. In addition, the effect of task manipulations such as feedback, penalties and practice were examined. Substitute medication maintained adult males were recruited for this study.

Interesting behavioural traits appear to reflect the performance differences between individuals, perhaps offering an additional approach to understanding the idiosyncratic nature of response behaviour during these tasks. Some insight was also gained in how task design may relate to decision-making strategies / response behaviours.

S29.04

Psychopathology of impulse control

M. Musalek. *Anton Proksch Institute, Vienna, Austria*

Impulse-control disorders are characterized by the presence of irresistible urges or impulses. With regard to phenomenology and pathogenesis of these disorders two yet unsolved questions attracted researchers: do Impulse-Control Disorders represent disorders of impulses (are the urges so penetrating that the individual is no longer able to control them) or are they primary disorders to control ubiquitous impulses, or both of them. An answer to these questions is essential for pharmacological and psychotherapeutic treatment planning. In ICD-10 and DSM-IV, however, these questions remain untouched. There, the diagnosis impulse (control) disorders should be used for kinds of persistently repeated maladaptive behaviour that are not secondary to a recognized psychiatric syndrome, and in which it appears that there is repeated failure to resist impulses to carry out the behaviour and the patients report a prodromal period of tension with a feeling of release at the time of the act. Pathological gambling, pyromania, kleptomania, and trichotillomania must be attributed to the rest-category named "Impulse Control Disorders" in DSM-IV or named "Habit and Impulse Disorders" in ICD-10. As we know from clinical praxis, patients suffering from pathological gambling show a much more complex

psychopathology quite similar to substance-related disorders. Therefore we propose for DSM-V that pathological gambling should be attributed as gambling addiction (or gambling dependence syndrome) together with other substance-related and non-substance-related addictions (e.g. internet addiction, buying addiction, working addiction) to a new group of dependence disorders.

Symposium: Characterization of second generation antipsychotic drugs: The role of electrophysiology

S44.01

EEG abnormalities under first and second generation antipsychotics

O. Pogarell, S. Karch, G. Leicht, C. Mulert. *Department of Psychiatry, Ludwig-Maximilians-University, Munich, Germany*

Antipsychotic treatment is frequently associated with unspecific EEG abnormalities; however, in a minority of subjects under antipsychotics severe alterations of brain electric activity including epileptiform activity might occur. Consequently, the risk of seizures is increased under psychopharmacology; however, differences between classes of antipsychotics (e.g. first or second generation drugs) have not been studied extensively and risk profiles regarding changes in brain electric activity remain to be established yet. We investigated psychiatric patients under antipsychotic medication using routine clinical neurophysiological assessments and compared first and second generation drugs. Aim of the study was to estimate the risk of EEG abnormalities under either class of medication by using both visual (standard) and quantified electroencephalography (qEEG) and to analyse the clinical relevance of such findings. In addition the association of brain electric activity under antipsychotics as assessed by novel electromagnetic imaging techniques with clinical parameters such as symptomatology or drug response was investigated.

There were significant differences in the prevalence of EEG abnormalities between first and second generation antipsychotics, with severe abnormalities being more pronounced under some of the second generation drugs. The use of either class was safe in general, but the differences might be of relevance in subjects with a history of seizures. The use of qEEG techniques in the clinical setting in terms of characterising the patients and the respective responses to medication will further be discussed.

S44.02

Topographic and tomographic QEEG changes induced by antipsychotic drugs

M. Brunovsky^{1,2,3}, B. Tislerova^{1,2,3}, P. Sos^{1,2,3}, J. Horacek^{1,2,3}, M. Klirova^{1,2,3}, T. Novak^{1,2,3}, C. Hoschl^{1,2,3}. ¹Prague Psychiatric Center, Prague, Czech Republic ²3rd Medical Faculty, Charles University, Prague, Czech Republic ³Center of Neuropsychiatric Studies, Prague, Czech Republic

QEEG almost consistently reports an abnormal excess of delta/theta activity, reduced alpha activity and posterior excess of beta activities in schizophrenics. LORETA allows more precise localization of these findings (excess of delta in bilateral anterior cingulate, increase of beta in parietal gyrus). All antipsychotic drugs induce significant changes in QEEG reflecting differential effects on inhibitory and