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 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

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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

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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 individuum is no longer able to control them) or are they primary disorders to control ubiquitary 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

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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

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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

https://doi.org/10.1016/j.eurpsy.2008.01.277 Published online by Cambridge University Press