P.6.d.012 Effects of methylphenidate and MDMA (ecstasy) on appraisal of erotic stimuli

Y. Schmid[1]*, B.B. Quednow[2], M.E. Liechti[1] [1]*University Hospital and University of Basel, Division of Clinical Pharmacology and Toxicology and Department of Biomedicine, Basel, Switzerland;* [2]*Psychiatric Hospital University of Zurich, Department of Psychiatry Psychotherapy and Psychosomatics, Zurich, Switzerland*

Background: Methylphenidate is a stimulant drug used for the treatment of attention deficit hyperactivity disorder, but it is also increasingly misused recreationally and as cognitive enhancer (neuroenhancer). 3,4-methylenedioxymethamphetamine (MDMA; 'ecstasy') is a popular recreational club drug mainly used due to its entactogenic properties, i.e. the drug is thought to enhance feelings of sociability, empathy, and closeness to others. Methylphenidate mainly enhances dopaminergic neurotransmission, whereas MDMA mainly increases brain serotonin levels. Additionally, both drugs increase noradrenergic neurotransmission and therefore have also psychostimulant properties. It is well recognized that psychoactive substances affect sexual perception and behavior. Typically, dopaminergic psychostimulants including methamphetamine and cocaine are reported to enhance sexual drive and to increase sexual pleasure. In contrast, serotonergic drugs such as serotonin uptake inhibitors typically impair sexual arousal and functions (decreased libido, erectile dysfunction, difficulty reaching orgasm). However, ecstasy users describe inconsistent effects on sexual desire and performance. Some users report feelings of emotional closeness while consuming Ecstasy but no desire for penetrative sex. Others report that ecstasy increased their sexual arousal and some use it specifically for sexual enhancement. It seems that MDMA induces well-being and feelings of closeness to others accompanied by a sensual rather than a sexual enhancement. However, research on psychoactive drug use and sexual behavior is typically based on interviews of drug users and has mainly focused on sexual risk taking. It remains to be determined, whether methylphenidate and MDMA alter sexual arousal when measured objectively in a laboratory setting.

Objective: The aim of this study was to assess sexual arousal induced by visual erotic stimuli after administration of single doses of methylphenidate, MDMA, or placebo.

Methods: We evaluated effects of methylphenidate (40 mg), MDMA (75 mg) and placebo on subjective sexual arousal by viewing erotic pictures using a double-blind, randomized, placebo-controlled cross-over design in 30 healthy subjects (15 men, 15 women). In the Sexual Arousal Task (SAT), participants had to evaluate 16 neutral, erotic (implicit sexual), or sexual (explicit sexual) color photographs taken from the International Affective Picture System and to rate how pleasant, exciting/arousing, attractive, likable or erotic they considered these pictures.

Results: Methylphenidate significantly increased ratings of arousal compared with both placebo ($p < 0.01$) and MDMA ($p < 0.001$), but only for pictures with an explicit sexual content. Methylphenidate similarly tended to increase ratings of erotic compared with placebo ($p < 0.05$) and MDMA ($p < 0.05$) for pictures with explicit sexual content. MDMA did not alter ratings on any of the dimensions regardless of sexual content. There were no significant differences between male or female participants in any of the ratings or drug effects.

Conclusion: Methylphenidate increased ratings of sexual excitation by visual stimuli with explicit sexual content. In contrast, MDMA had no such effects on sexual arousal. The findings indicate that pharmacological stimulation of dopaminergic (methylphenidate) but not of serotonergic (MDMA) neurotransmission enhances sexual drive. It needs to be investigated whether sexual perception or even risk-associated sexual behavior is altered in subjects using methylphenidate for cognitive enhancement or as treatment for attention deficit hyperactivity disorder.

P.6.d.013 Assessment of early psychiatric symptoms among substance users: a preliminary study

C. Martorelli[1]*, M. Roggi[1], S. Di Volo[1], S. Bolognesi[2], A. Goracci[2], A. Fagiolini[2] [1]*AOUS Siena, Molecular Medicine and Development, Siena, Italy;* [2]*AOUS Siena, Mental Health, Siena, Italy*

Aim of the study: Adolescents who use substances are more likely to experience many negative outcomes including academic, legal and social problems, unprotected sexual activity, organic diseases, psychiatric disorders and development of later Substance Use Disorder (SUD) [1]; moreover, mental disorders are recognized as a risk factor for later SUD, supporting for causal models which may reflect self-medication or other causal mechanisms [2].

This study retrospectively evaluates the presence, age of onset and the characteristics of a psychiatric disorder in patients with SUD before their first SUD diagnosis.

Patients and Methods: 40 patients referred to the Service for Drug Addiction (SerT) of Siena Department of Mental Health were recruited.

Socio-demographic characteristics were recorded and SCID I (Structured Clinical Interview for DSM-IV Axis I Disorders) and a modified version of SCID II (Structured Clinical Interview for DSM-IV Axis II Disorders) were administered. The SCID II was modified by adding a section about the age of onset of the Personality Disorder.

Summary of results: 75% of the study sample were male, 57.5% were single, 7.5% had a university degree. Mean age was 41 years and mean age of SUD diagnosis was 28 years. 85% of the sample were taking substance abuse treatment agents, 57.5% never took psychiatric therapy, 40% were still substance users. Family history of substance use was found in 22.5% of cases.

The most common SUD were cannabis abuse (12.65 years before first SUD diagnosis) and opioid abuse and dependence (5.79 years before SUD diagnosis); more than a half of the sample had a cocaine and hallucinogens abuse history, about 8 years before SUD diagnosis. Alcohol abuse and dependence were present respectively in 48.8% and 34.1% of the sample approximately 10 years before referring to SerT; polyabuse was present in 99% of the sample. 30% of the subjects had a history of Major Depressive Disorder and 17.5% of Bipolar Disorder about 10 years before first SUD diagnosis, while 62.5% had at least one episode of Substance-Induced Mood Disorder 6.67 years before referring to SerT.

Generalised Anxiety Disorder (26.8%) and Social Phobia (19.5%) were present about 20 years before SUD diagnosis, Panic Disorder (14.6%) about 12.83 years before and Substance-Induced Anxiety Disorder (12.2%) 7.8 years before referring to Sert. About 11 years before SUD diagnosis less than 8% of the sample showed DCA while more than a half (51.3%) had a history of Impulse Control Disorder, mostly Intermittent Explosive Disorder (36.6%). Substance-Induced Psychosis was found in 19.5% of the sample, about 4.63 years before SUD diagnosis.

Borderline Personality Disorder, followed by Antisocial, Obsessive–Compulsive and Passive-Aggressive Personality Disorder, was the most frequent Personality Disorder, about 13.42 years before SUD diagnosis.

Multiple diagnosis of Personality Disorder was found in 77.5% of the sample.

Conclusions: The presence of psychiatric symptoms several years before SUD diagnosis might suggest that early treatment of these symptoms may favorably impact on the subsequent development of a secondary SUD [3]. Larger and prospective studies are needed to test this hypothesis.

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P.6.d.014 Psychopathological tolerability of varenicline and nicotine patches for smoking cessation in severe mental disorders

L. González-Blanco[1]*, M.P. García-Portilla[2], L. García-Álvarez[3], P.A. Sáiz[2], C. Iglesias[2], F. Sarramea[4], A. Torres[4], E. Elizagárate[5], A. Ubis[5], J. Bobes[2] *[1]Servicio de Salud del Principado de Asturias, Psiquiatría, Oviedo, Spain; [2]Universidad de Oviedo, Área de Psiquiatría, Oviedo, Spain; [3]Centro de Investigación Biomédica en Red de Salud Mental, CIBERSAM, Oviedo, Spain; [4]Servicio Andaluz de Salud, Distrito Sanitario Jaén Norte, Spain; [5]H. Psiquiátrico de Álava, Unidad de Psicosis Refractarias. CIBERSAM, Vitoria, Spain*

Introduction and Purpose: An FDA warning, issued February 1, 2008, stated that serious neuropsychiatric symptoms, including changes in behavior, agitation, depressed mood, suicidal ideation, and attempted and completed suicide, have occurred in patients taking varenicline [1]. However, only a few studies have examined the efficacy and safety of smoking cessation programmes in patients with mental disorders [2]. The purpose of this study is to examine psychopathological tolerability of pharmacological interventions for smoking cessation (varenicline and nicotine patches) in patients with severe mental disorder.

Methods: Open-label 9-month follow-up multicentre study. Sample: 78 patients diagnosed with Schizophrenia or Bipolar Disorder [65.4% males; mean age (SD) = 45.7 (8.93)]. Three patients were treated with Bupropion and excluded from this study. Inclusion criteria: (1) patients with diagnosis of Schizophrenia, Schizoaffective Disorder or Bipolar Disorder (DSM-IV criteria), clinically stabilized and under maintenance treatment; (2) currently smoking $\geqslant$15 cigarettes/day; (3) Fagerström Test for Nicotine Dependence score $\geqslant$4 (moderate); (4) breath CO level >9 ppm; (5) between 18 and 65 years of age; (6) without suicidal ideation; and (7) written informed consent to participate in the study. Intervention: Treatment consisted of the application of Multi-component Smoking Cessation Support Programme (McSCSP) designed for patients with severe mental disorder. The programme consisted of two phases: (1) weekly individual motivational therapy for 4–12 weeks, and (2) a 12-week active treatment phase: pharmacological treatment (varenicline, nicotine patches or Bupropion) and group psychotherapy. Instruments: (1) Positive and Negative Syndrome Scale (PANSS), (2) Hamilton Depression Rating Scale (HDRS), (3) Young Mania Rating Scale (YMRS) and (4) Clinical Global Impression – Severity Scale (CGI-S).

Results: 39 of patients (52%) were treated with varenicline and 36 patients (48%) with nicotine patches, without significant differences in diagnostic assignment to treatment groups. There were not statistically significant changes in psychopathology between week 0 and week 12. Varenicline group obtained the following results: patients diagnosed with Schizophrenia [PANSS score: 54.24 (week 0) to 52.43 (week 12)] and Bipolar Disorder [HDRS score: 3.60 to 4.80; YMRS score: 3.00 to 0], noting some improvement in YMRS score close to the significance ($p = 0.077$). Nicotine patches group: Schizophrenia [PANSS score: 45.21 (week 0) to 41.71 (week 12)] and Bipolar Disorder [HDRS score: 6.63 to 4.38; YMRS score: 3.88 to 3.75], noting some improvement in PANSS-General score [24.21 to 21.79] close to the significance ($p = 0.089$). There were not statistically changes on symptom severity (CGI-S) in both groups. During the 12 weeks of treatment, 2.6% patients on varenicline reported suicidal ideation compared to 0% patients on nicotine (p=1.000). There were not suicidal behaviors during the active phase of treatment.

Conclusions:

1. Psychopathological deterioration was not detected in patients with several mental disorder who were treated with varenicline or nicotine patches.
2. Neither varenicline nor nicotine patches were associated with suicidal ideation and behavior.

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P.6.d.015 Opioid consumers: from the pain clinic to the addictive behaviours unit

S. Mansilla Sánchez[1]*, A. López Lazcano[2], A. Faulí Prats[3], A. Lligoña Garreta[1] *[1]Hospital Clínic Universitari Barcelona, Psychiatry, Barcelona, Spain; [2]Hospital Clínic Universitari Barcelona, Psychology, Barcelona, Spain; [3]Hospital Clínic Universitari Barcelona, Anaesthesiology, Barcelona, Spain*

Purpose of the study: Chronic pain is a prevalent condition worldwide. Suffering it, especially neuropathic pain, has a major impact on all aspects of general health and early identification and management are essential in order to minimise long term suffering and disability [1]. The OMS scale for pain treatment includes opioids as an option, and so these drugs are frequently used. In the last years an increase in opioid prescription in western