

excitatory activities. Two QEEG profiles of first-generation antipsychotics may be differentiated: a) chlorpromazine-type profile, characterized by an increase in delta/theta and a decrease in alpha and beta power spectra, and b) haloperidol-type profile, which exhibits no significant change in delta/theta frequency band but increase of alpha and alpha adjacent beta activity. The second generation antipsychotics have different QEEG and LORETA profiles probably reflecting their different mechanism of action. Clozapine produces an increase of delta, theta and alpha1 and decrease of alpha2 and fast beta activities. Comparing to antipsychotic-naïve schizophrenics, clozapine-treated patients showed an excess of delta and theta activities in anterior cingulate and medial frontal cortex. QEEG profile of olanzapine is similar to clozapine, whereas tomography show slightly different pattern (decrease of alpha1-beta activities in the occipital cortex and posterior limbic structures and decrease of beta3 sources in the fronto-temporal cortex and anterior cingulum). Risperidone increased current density in frontal regions for delta, theta and alpha1 in healthy subjects, whereas we found no changes in LORETA between risperidone-treated and antipsychotic-naïve patients. According to 'key-lock principle' the pharmaco-EEG topography and tomography could be helpful in the optimization of antipsychotic therapy.

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### S44.03

ERP changes induced by antipsychotic drugs

A. Mucci, S. Galderisi, M. Piccirillo, E. Merlotti, M. Maj.  
*Department of Psychiatry, University of Naples SUN, Naples, Italy*

**Background and Aims:** Second-generation antipsychotics (SGA) are thought to have a more favorable impact on neurocognitive functions with respect to first-generation antipsychotics (FGAs). Event-related potentials (ERPs) represent valuable tools in the assessment of cognitive effects of psychotropic drugs; however, few ERP studies investigated antipsychotic drug effects on neurocognition in human subjects.

The present ERP, double-blind, cross-over study was carried out in 12 male healthy subjects to investigate the effects of a single oral dose of haloperidol, placebo or risperidone on effortful and automatic allocation of attentional resources to auditory stimuli.

**Methods:** ERPs were recorded from 30 unipolar leads (0.5-70 Hz bandpass, 256 Hz sampling rate), during a three-tone oddball task in which target, standard and rare-nontarget tones were randomly presented. Subjects had to press a button when hearing a target tone, while ignoring both standard and rare-nontarget stimuli.

P3 for target (P3b) and rare-nontarget stimuli (P3a) were identified at Cz and Pz leads. Amplitude maps at peak latency were then compared across conditions. If a significant drug effect was obtained, changes in the cortical sources of P3 were analyzed using Low-Resolution Electromagnetic Tomography (LORETA).

**Results:** No change was observed for P3b. P3a amplitude was increased by risperidone, at midline and right centro-parietal regions, but not by haloperidol. No change was observed in P3a cortical generators.

**Conclusions:** P3a, an index of the automatic allocation of attentional resources, is increased only by risperidone, suggesting a favorable effect of this SGA on orienting processes.

### S44.04

Sleep EEG changes induced by antipsychotics

M.J. Barbanj<sup>1,2,4</sup>, S. Giménez<sup>1,4</sup>, S. Clos<sup>1,4</sup>, S. Romero<sup>1,3</sup>, E. Grasa<sup>1,4</sup>, J. Riba<sup>1,4</sup>. <sup>1</sup>Centre D'Investigació Del Medicament, Institut de Recerca. Servei de Farmacologia Clínica Hospital de la Santa Creu I Sant Pau, Barcelona, Spain <sup>2</sup>Departament de Farmacologia I Terapèutica, Universitat Autònoma de Barcelona, Barcelona, Spain <sup>3</sup>Centre de Recerca En Enginyeria Biomèdica, Departament ESAIL, Universitat Politècnica de Catalunya, Barcelona, Spain <sup>4</sup>REM-TAP Network

Our standpoint for characterization of any drugs on sleep is based on three issues: 1) Assessment of drug induced effects on sleep in healthy young volunteers leads to unbiased conclusions about the pharmacological effects of a compound per se. 2) Working hypothesis underlying the scenario states that electrophysiological changes are directly related to the biochemical changes each compound induces in the brain. 3) Only changes on sleep macrostructure do not provide enough information for documenting pharmacological effects on sleep EEG. From a pharmacological perspective, second generation antipsychotic, as a class, may be defined in part as agents with simultaneously serotonin 2A and dopamine 2 antagonist properties. However, no two agents have exactly identical properties, including multiple pharmacologic actions at serotonin and dopamine receptor subtypes and multiple pharmacologic actions at other neurotransmitter receptors. Current knowledge about the parts played by the different transmitters on the control of the sleep-wake continuum, although important, is far from being clearly established. Availability of EEG sleep data on the effects of antipsychotic drugs is more than sparse. No attempts have been made to determine short-term, intermediate-term, or long-term effects. Questions of rebound following withdrawal or of tolerance have not been addressed. Up to date the most robust finding dealing with sleep EEG changes and second generation of antipsychotics is the increase of slow wave sleep (SWS) after drugs, as olanzapine, which show potent 5HT2A/2C antagonism activity. Further adequately designed, justified and analysed studies are certainly needed to advance in the field.

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## Symposium: Novel perspectives in prevention of suicidal behaviours

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### S35.01

Suicide prevention "for the person" - A subjectivistic approach outgoing from an European perspective

W. Rutz. *Faculty of Social Sciences, University of Coburg, Coburg, Germany*

The World Psychiatric Association has recently launched its institutional program "Psychiatry for the Person", with the aim to introduce a more subjectivistic and individual centred approach in diagnosing, treating and monitoring psychiatric disorders as human conditions.

Suicide prevention "for the person" seems here to be one of the most important fields in applying these principles. The suicidal person is influenced by his/her genetic predisposition and personality traits, his/her specific psychiatric disorder or dysfunction in biological and social framework, his/her individual psychosocial and existential