

5<sup>th</sup> International Conference on

## DEPRESSION, ANXIETY AND STRESS MANAGEMENT

November 05-06, 2018 Bangkok, Thailand

**Pharmaco-electroencephalography-based assessment of antidepressant drug efficacy****Michał Skalski, Piotr Januszko and Maria Radziwoń-Zaleska**  
Medical University of Warsaw, Poland

Pharmaco-electroencephalography (pharmaco-EEG) assesses the effects of drugs on brain bioelectrical activity. Specific EEG patterns have been shown to be specific for individual classes of drugs. The anxiolytic drug effects are increased beta (beta 1) activity, decreased alpha power and increased delta and theta power. The antipsychotic drug effects are increased power of theta and delta activity, decreased beta 1 power, increased slow-wave activity and reduced alpha power. The antidepressant drug effects slowed alpha frequency, increased theta and fast beta (beta 2) activity. The psychostimulant (amphetamine-like) drug effects decreased delta and theta power, increased alpha and beta power. The nootropic drug effects decreased delta and theta power and increased alpha activity. Lithium effects increased delta and theta power and slowed alpha activity. We analyzed pharmaco-EEG profiles in 91 patients hospitalized at our Department of Psychiatry (Medical University of Warsaw) for major depression over an 8-week period. Thirty-nine (39) of those patients received Tricyclic Antidepressants (TCA), 35 received fluoxetine and 17 received fluoxetine augmented with magnesium ions. All patients were evaluated with the Hamilton Depression Rating Scale (HDRS) and had their serum drug levels monitored. Our study demonstrated a relationship between achieving remission ( $\text{HDRS} \leq 6$  at week 8 of treatment) and obtaining a positive pharmaco-EEG profile 6 hours after administering the first dose in the group receiving fluoxetine treatment augmented with magnesium ions ( $p=0.0091$ ).

michal.skalski@wum.edu.pl

Notes: