Article: EPA-1034
Topic: S502 - Symposium: The regulation of CNS-arousal and wakefulness in affective disorders and ADHD: relevance for pathogenesis and therapy

EEG predictors for antidepressant treatment outcome: First results from the iSPOT study

M. Arns[1]

Objectives: Ever since the first description of Lemere in 1936 describing the capability to '…*produce 'good' alpha waves*…' to be associated with the '…*affective capacity of the individual...*' [1], research on this EEG measure in Depression (MDD) has attracted wide attention. Several studies have shown that responders to various antidepressant treatments are characterized by increased posterior alpha power in MDD (reviewed in [2]). Another dimension of alpha is its frequency; also called alpha peak frequency (APF) and several studies have found a slow APF to be related to non-response to medication and rTMS [2]. Therefore, in this study we aim to investigate in a large sample whether these two alpha measures can predict treatment outcome to antidepressants.

Methods: A multi-center, international, randomized, prospective open-label trial (International Study to Predict Optimized Treatment – in Depression, iSPOT-D), where MDD patients were randomized to: Escitalopram, sertraline or venlafaxine-XR. Treatment response was established after eight weeks using the Hamilton Rating Scale (HRSD) and the Quick Inventory of Depressive Symptomatology-Self Report (QIDS-SR).

Results: A total of 1.007 MDD patients and 336 healthy controls were included in the study.

Conclusions: Sensitivity, specificity, positive and negative predictive values for remission will be reported for all patients and for medication types

References:

[1] Lemere, F. (1936). The significance of individual differences in the berger rhythm. *Brain: A Journal of Neurology*, 366-375.

[2] Olbrich, S., & Arns, S. M. (2013). EEG biomarkers in major depressive disorder: Discriminative power and prediction of treatment response . *International Review of Psychiatry.* doi:10.3109/09540261.2013.816269

https://doi.org/10.1016/S0924-9338(14)78324-5 Published online by Cambridge University Press