P-514 - WAKEFULNESS REGULATION AND THE PREDICTION OF ANTIDEPRESSANT TREATMENT IN MAJOR DEPRESSION

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The vigilance regulation model of affective disorders suggests that tonically high vigilance (i.e. brain arousal) in patients with major depression (MD) induces social withdrawal and sensation avoidance as autoregulatory reactions to decrease external stimulation. A computer based algorithm (VIGALL) has been developed that allows the classification of EEG-vigilance time series. Validation studies revealed a close association of EEG-vigilance stages and autonomous nervous system (ANS) activity and proved the discriminative power of VIGALL by showing that patients with MD reveal a more stable EEG-vigilance regulation compared to healthy controls. Before this background the question raises, whether vigilance regulation patterns could also be used for treatment prediction in MD. The predictive power of three different pre-treatment EEG-vigilance regulation patterns was analyzed in 33 previously unmedicated patients with MD. Results will be presented that show differences of frequency distribution of vigilance regulation patterns in responders and non-responders, defined by a reduction more or less than 30% in Hamilton Depression Rating Scale after two weeks of treatment with an SSRI or mirtazapine. Additionally, differences of ANS activity by means of heart rate variability between responders and non-responders will be shown. The results will be discussed within the light of a possible dysregulation of cortical and autonomous arousal in MD. Also the usage of EEG-vigilance regulation patterns as a biomarker for antidepressant treatment outcome in MD will be adressed.