

## SLORETA FINDINGS IN PATIENTS WITH PANIC DISORDER - DIFFERENCES BETWEEN RESPONDERS AND NON-RESPONDERS TO COMBINED CBT AND PHARMACOTHERAPY

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**Introduction:** Panic disorder is common disease characterized by spontaneous attacks of massive anxiety and fear. Anxiety is generally considered to be a condition in which the organism is increasingly aroused and EEG may therefore play an important role in the study of the biological basis of anxiety disorders. Standardized low-resolution electromagnetic tomography (sLORETA) is a new quantitative EEG method for determining distribution of neuronal electrical activity in the form of three-dimensional images of current density of the cerebral cortex.

**Objectives:** EEG may be useful method in searching for predictors to the pharmacological and cognitive-behavioral therapy (CBT).

**Aims:** The study aimed at finding electrotomographic differences between patients with panic disorder who respond to combined CBT and pharmacotherapy.

**Methods:** The study comprised 24 patients diagnosed with panic disorder with or without agoraphobia. The severity of symptoms was measured with the Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), Sheehan Anxiety Scale, subjective and objective Clinical Global Impression (CGI) and Dissociative Experiences Scale (DES). Based on final BAI score decreases by 25%, the patients were classified into two groups - responders and non-responders. 21-channel EEGs were recorded at baseline and after completion of therapy.

**Results:** In non-responders, there were no statistically significant changes in sLORETA findings following therapy. Responders showed a significant decrease of alpha-2 sources ( $p < 0.05$ ) in the occipital lobes and cuneus and a statistical trend for increased beta-3 sources ( $p < 0.10$ ) in the posterior cingulate.

**Conclusion:** Only treatment response was associated with significant changes of electric neuronal activity.