2013; 14(2), 143–152.) Apart from their physiological functions, can there be emotions that were once experienced and then suppressed and pushed into the unconscious? If we explain the unconscious only with the functioning of procedural memory in accordance with the current findings of neuroscience, then some changes are needed in our understanding of psychotherapy and especially transference. Because "is the thing that helps change in psychotherapy, the expression of an idea, the verbalization of the experiences, or an emotional/affective exchange between the psychotherapist and the patient?" We must find the answer to the question. It is hoped that neuroscience in general and neuropsychoanalysis in particular will reach new findings and explanations on these issues in the near future.

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EPV0637

Looking though the Past, Present and Future of TMS-EEG

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Introduction: Psychiatry has been diagnosing its pathologies through the evaluation of the symptoms reported by patients, relying on a few complementary exams to exclude organic causes. Studies about transcranial magnetic stimulation and electroencephalography (TMS-EEG) are bringing, from a clinical point of view, crucial information to characterize the different pathophysiological biomarkers of the psychiatric diseases, leading not only to the evolution of diagnosis, but also to an improved, more individualized treatment.
Objectives: Characterizing the state of the art of TMS-EEG and its use in psychiatric diagnosis and treatments of different diseases.
Methods: We undertook a narrative literature review by performing a search on PubMed for English-written articles from the last 10 years. The query used was "TMS-EEG"; "TMS-EEG" AND "Schizophrenia" OR "Major Depressive Disorder" OR "Bipolar Disorder".
Results: Transcranial magnetic stimulation (TMS) is a safe and reliable method of non-invasive brain stimulation that allows for the local activation of cortical areas through electromagnetic induction. When combining this method with electroencephalography (EEG), it enables the underlying mechanisms of brain diseases.
TMS is a powerful therapeutic technic in Major Depressive Disorder (MDD). The literature refers to an enhanced N45 and N100 amplitude, which indicates a baseline cortical inhibition that can indicate a depressed state, which can be used as a clinical biomarker to evaluate TMS treatments.
In Schizophrenia (SCZ), TMS-EEG reveals a decreased cortical inhibition and excitation. Indices of inhibition and excitation reductions were also related to cognitive deficits.
The current studies regarding Bipolar Disorder (BD) are not so consistent, revealing that there are shared neural pathways with MDD and SCZ. This is a pathology often misdiagnosed with MDD, so biomarkers would help to diagnose BD earlier and improve its prognostic.
Conclusions: TMS-EEG can be used to provide more accurate neural targets, leading to more powerful and personalized interventions in psychiatric disorders, as well as more accurate diagnoses.
As for future studies, it would be relevant to assess not only TMS treatment effects, but also pharmacological results in these different pathologies.

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Obsessive-Compulsive Disorder

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Oxidative Stress Markers in Obsessive-Compulsive Disorder

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Introduction: Obsessive–compulsive disorder (OCD) is a chronic, prevalent, and highly impairing psychiatric illness. Although the pathophysiology of OCD remains unknown, pathways involved in oxidative stress (OS) have been implicated. However, the complete clinical picture has been rarely considered, and it remains unclear whether oxidative dysregulation is inherent to OCD pathophysiology, or whether it is a consequence of confounding factors such as age, body mass index (BMI) or smoking.
Objectives: In this work, we aim to assess oxidant and antioxidant markers and its clinical correlates in a well characterized sample of patients with OCD and controls, to test the hypothesis that altered OS markers are associated with OCD, rather than to illness-related behavioral changes or comorbidities.
Methods: 60 patients with OCD and 60 age and sex-matched control volunteers were recruited and assessed for sociodemographic and clinical variables using the Yale-Brown Obsessive-Compulsive Scale-II, the Beck Depression Inventory-II and the State-Trait Anxiety Inventory and Mini International Neuropsychiatric Interview. Three oxidant [8-hydroxy-2'-deoxyguanosine (8-OhdG), malondialdehyde, protein carbonyl] and three antioxidant [catalase, glutathione-peroxidase and superoxide dismutase (SOD)] markers were assessed in serum using Enzyme-Linked Immunosorbent Assay (ELISA). After comparing between groups, the association between OS markers and OCD characteristics, psychiatric medication and psychiatric comorbidities was assessed among patients with OCD. All analyses were adjusted for BMI, smoking and presence of physical comorbidities.
Results: The six OS markers were similar between patients with OCD and controls. Among patients with OCD, patients with more obsessive and depressive symptoms had lower concentrations of 8-OHdG, although this correlation may be sensitive to extreme values. Also, those who were on higher doses of antidepressants had lower concentrations of SOD. The remaining OS markers were not associated with OCD characteristics, psychiatric medication, or comorbidities.