

**Introduction:** Tourette's syndrome is a neuropsychiatric disorder marked by motor and phonic tics frequently associated with psychiatric comorbidities, beginning in childhood. While most cases improve or resolve with age, some are refractory.

**Objectives:** To review new strategies for the management of Tourette's Syndrome, following an outpatient clinical vignette.

**Methods:** We performed a review based on the PubMed® database.

**Results:** A 50-years-old female patient with a long-term outpatient psychiatric follow-up presented with motor tics appearing in adolescence, including winking and facial grimacing, as well as episodes of coprolalia. Over the years, she developed an anxiety disorder and social isolation. In addition to psychological therapy, pharmacological therapy had already been approached with the use alpha-adrenergic agonists and several antipsychotics, such as risperidone and aripiprazole, with the patient showing only partial response to pimozide. In Tourette's syndrome, the therapy must be adequate to the patient's individual needs. Emerging treatments for refractory cases, such as anticonvulsants, cannabinoids or antiglutamatergic drugs have been the target of several studies. Botulinum toxin injections are particularly effective in patients with focal motor tics and complex phonic tics. Non-pharmacological treatment options, such as electroconvulsive therapy and deep brain stimulation may prove effective in some cases.

**Conclusions:** A significant proportion of patients fail to respond to conventional strategies. Thus, new pharmacological and non-pharmacological therapies are on the horizon and may represent an important step in treatment algorithms for refractory cases in the future.

**Keywords:** Deep brain stimulation; antiglutamatergic; Tourette syndrome; Tics

## EPP1081

### Predictors of response to electroconvulsive therapy and its importance in the treatment of patients with obsessive-compulsive disorder

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doi: 10.1192/j.eurpsy.2021.1310

**Introduction:** Electroconvulsive therapy (ECT) presents itself as a highly effective therapeutic approach in various psychiatric conditions, especially affective disorders and catatonia. Although obsessive-compulsive disorder (OCD) is not an established indication for ECT, there are several positive results that have been replicated, giving us an account of its potential applicability.

**Objectives:** To emphasize the importance of defining predictors of response to ECT in OCD.

**Methods:** The authors' clinical experience is combined with the review of clinical cases, available in the literature, related to the application of ECT in OCD.

**Results:** Personal or family history of affective pathology and obsessions of sexual content were identified as potential predictors of response to ECT in patients with obsessive and compulsive symptoms.

**Conclusions:** Although preliminary and based solely on case reports, the replicability of results should promote special attention to situations in which OCD is marked by particular characteristics that favor the response to ECT. In this way, it would be possible to prevent the dragged consumption of health resources and minimize the expected chronicity associated with this clinical condition.

**Keywords:** obsessive-compulsive disorder; Electroconvulsive therapy

## EPP1082

### Cortical excitability and its modulation in obsessive-compulsive disorder - a systematic review

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doi: 10.1192/j.eurpsy.2021.1311

**Introduction:** Obsessive-Compulsive Disorder (OCD) is an incapacitating Neuropsychiatric condition characterized by the presence of obsessions and/or compulsions. Although the disorder's phenotype is well described, its pathophysiology remains elusive (Aouizerate et al, 2004). Over the last decade, techniques to noninvasively study the brain's neurophysiology, such as Transcranial Magnetic Stimulation (TMS), have found widespread use in psychiatric research. For OCD, single- and paired-pulse TMS protocols have been used to explore abnormalities in motor cortex excitability and cortical neuroplasticity. Here we propose to systematically review and, where possible, meta-analyse existing case-control studies that compared such measures in patients and healthy subjects.

**Objectives:** To systematically review and meta-analyse published case-control studies comparing cortical excitability measures, as measured by single- or paired-pulse TMS, in subjects with OCD and healthy controls.

**Methods:** We have conducted a systematic review of published literature (PROSPERO registration CRD42020201764) reporting measures of cortical excitability as measured by single or paired-pulse TMS, in patients with OCD and healthy controls. We searched 4 different electronic libraries (PubMed, Web of Science, EMBASE, PsycINFO). The resulting list of articles was reviewed, separately, by two researchers. Disagreements were discussed and resolved by consensus, until a final list of eligible articles was obtained.

**Results:** 13 studies reporting motor cortex excitability measures were included in our final list. The total number of participants included in our analyses is 615 (349 OCD; 180 healthy subjects; 86 other conditions)

**Conclusions:** A sufficient number of studies was found to allow for meta-analyses, currently ongoing.

**Keywords:** Obsessive-Compulsive disorder; transcranial magnetic stimulation; Neurophysiology; Cortical excitability