

## EPV0654

**The role of immunity and inflammation in obsessive-compulsive disorder and related conditions**

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**Introduction:** In recent years, there has been a growing interest in the potential consequences of disruptions in the inflammatory and immune systems on the onset of obsessive-compulsive disorder (OCD) and associated conditions, such as Paediatric Auto-immune Neuropsychiatric Disorders Associated with Streptococcal Infection (PANDAS) and Tourette syndrome (TS). While this area of inquiry is undeniably captivating, the available data remain somewhat controversial and limited in scope.

**Objectives:** The aim of this paper is to conduct an exhaustive examination and evaluation of the existing body of literature concerning aberrations in inflammatory and immune system processes within the context of OCD, PANDAS, and TS.

**Methods:** This narrative review entailed a comprehensive search of English language papers on PubMed and Google Scholar from January 1985 to July 31, 2023.

**Results:** The data collected up to this point suggest that the underlying mechanisms at play may differ depending on the age of the patients and the specific disorder being investigated. Notably, PANDAS seems to have a stronger connection with infections that trigger autoimmunity, which may not necessarily be limited to those resulting from Group A beta-haemolytic streptococcal (GABHS) infections, as previously assumed. In the case of TS, autoimmunity appears to play a significant role, especially when combined with individual susceptibilities stemming from both genetic and environmental factors. As for adult OCD, while the available data are somewhat scattered and occasionally based on relatively small groups of patients, they do indicate that the immune system and inflammatory processes are involved in the disorder's pathophysiology. However, it remains uncertain whether these processes are primary driving forces or secondary reactions.

**Conclusions:** In summary, when viewed collectively, the current research findings unveil promising avenues for exploring the underlying causes of OCD and related disorders. They also hold the potential for the development of innovative therapeutic approaches that go beyond the current pharmacological paradigms.

**Disclosure of Interest:** None Declared

## EPV0653

**Transcranial magnetic stimulation for obsessive-compulsive disorder - preliminary results of an observational study**

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**Introduction:** Obsessive-compulsive disorder (OCD) has a high prevalence and causes a significant reduction in functionality and quality of life.

First and second line treatment is ineffective in a variable percentage of patients. In such cases transcranial magnetic stimulation (TMS) may be considered.

**Objectives:** The goal of this study is to evaluate the impact of TMS treatment on obsessive-compulsive, anxious and depressive symptomatology in patients with OCD.

**Methods:** A prospective observational study was conducted, including all patients diagnosed with OCD who underwent TMS in the Psychiatry department of Centro Hospitalar Universitário de São João since March 2023.

Symptomatology was assessed using the Yale Brown Obsessive-Compulsive Scale (Y-BOCS), the Hamilton Anxiety Rating Scale (HAM-A) and the Hamilton Depression Rating Scale (HAM-D) before and after treatment.

Statistical analysis was performed using the SPSS-Statistics program. A significance level of 0.05 was considered.

**Results:** As of October 31, 2023, nine individuals with OCD completed treatment with TMS, 33% male and with a median age of 40 years (range 33-57).

The median Y-BOCS score pre-TMS was 30 (range 20-33) and post-TMS 28 (range 16-34). The median difference was 2.5 (range -5-14) and was not statistically significant ( $p=0.128$ ).

The median score on the HAM-A pre-TMS was 21 (range 9-41) and post-TMS 18 (range 11-24). The median difference was 0 points (range -4-21) and was not statistically significant ( $p=0.345$ ).

The median HAM-D score pre-TMS was 26 (range 14-40) and post-TMS 19 (range 10-32). The median difference was 2.5 (range -3-20) and was not statistically significant ( $p=0.225$ ).

**Conclusions:** Preliminary findings suggest that the impact of TMS on obsessive-compulsive, anxious, and depressive symptomatology in patients with OCD does not appear to be clinically or statistically significant.

Further results are necessary to confirm this trend.

**Disclosure of Interest:** None Declared