

**Psychopharmacology and Pharmacoeconomics 02 /  
Psychosurgery & Stimulation Methods (ECT, TMS,  
VNS, DBS) / Research Methodology**

**EPP0401**

**What is the link between the antidepressants, the transcranial magnetic stimulation and the peripheral vascular endothelial growth factor?**

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**Introduction:** Vascular endothelial growth factor (VEGF) has been implicated in mediating the effect of antidepressants (AD) and electroconvulsive therapy on depression since it plays a significant role in the neurogenesis. However, the serum VEGF level has not been investigated so far in association with rTMS treatment in patients with major depressive disorder (MDD).

**Objectives:** The aim of our study was to compare the effect of the antidepressants and of the repetitive transcranial magnetic stimulation on the serum vascular endothelial growth factor and its association with the responsiveness to the treatments.

**Methods:** A dataset of 50 patients with TRD who were treated with AD (n=33) and bilateral rTMS for 2x5 days (n=17) was analysed (sample 'rTMS&AD'). Montgomery-Asberg Depression Scale (MADRS) was used for monitoring the symptom changes. The serum VEGF levels and symptoms were assessed on the first (V1), on the 14th (V2) and on the 28th day (V3). The VEGF levels were measured by ELISA assay.

**Results:** The baseline VEGF levels were significantly higher in non-responders both in the rTMS&AD (p=0.04) and AD samples (p=0.02) compared to responders. The MADRS reduction and the changes in VEGF levels between V1 and V3 were significantly associated in responders only in the AD&rTMS sample (p=0.03). The baseline VEGF level has been proven as a significant predictive factor of treatment response in the total sample (p=0.018).

**Conclusions:** The baseline VEGF level can be a predictive factor to be a non-responder to different treatments. Change of the VEGF level is associated with the improvement of depressive symptoms only due to rTMS.

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**Keywords:** depression; rTMS; non-responders; treatment resistant depression; VEGF

**EPP0403**

**Non-participation to a longitudinal and interventional survey on the psychological impact of the COVID-19 pandemic among healthcare workers (PSYCOVER) in France**

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**Introduction:** We conducted a national longitudinal survey among healthcare workers in the context of the Covid-19 pandemic, (1) to assess mental health and (2) to describe the results of an intervention to improve capacity of resilience. Non-participation is rarely studied despite being an important methodological matter when performing studies on mental health.

**Objectives:** The study aims to describe and identify the factors associated with non-participation of healthcare workers to the intervention part of a national longitudinal study on the psychological impact of the COVID-19 pandemic.

**Methods:** Participants were recruited from April to October 2021 via an Internet link widely disseminated. Data collected include participant' socio-demographic, occupational and working conditions, general health, professional burnout and mental health. The intervention proposed the use of tools for self-management of stress and resilience (PsySTART-Responder<sup>®</sup> and Anticipate.Plan.Deter™ program). A robust Poisson regression was used to identify factors associated with non-participation.

**Results:** Among 724 participants, 41% participated to the intervention part. Factors associated to non-participation to the intervention were to work with few or no COVID-19 patients, and low scores in the anxiety scale. Social determinants, occupational characteristics or general health were not associated with non-participation.

**Conclusions:** Our study provides a better understanding of the participation of healthcare workers that was not frequently studied. The results logically suggest lower participation among those with better mental health and not directly concerned with management of COVID-19 patients. Non-participation to the intervention was not associated with social factors, which is an argument in favour of using such a design/intervention in a socially heterogeneous population.

**Disclosure:** No significant relationships.

**Keywords:** healthcare workers; Covid-19 pandemic; non-participation to a survey; longitudinal survey on mental health

**EPP0404**

**The impact of depression in Alzheimer's disease hospitalized patients: a study protocol for a nationwide retrospective study**

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