

**Introduction:** MIJ821 is a novel N-methyl-D-aspartate (NMDA) receptor antagonist, with a potentially low rate of the psychotomimetic side effects that limit the therapeutic utility of ketamine in treatment-refractory depression (TRD).

**Objectives:** To assess efficacy and safety of MIJ821.

**Methods:** Adults with TRD (>2 prior treatment failures; Montgomery-Asberg Depression Rating Scale [MADRS], >24) were eligible and were randomized (n=70) to low versus high doses of MIJ821, with two dosing regimens of weekly or biweekly, versus ketamine versus placebo. The primary outcome was change in MADRS total score at 24 hours and final follow up was at 6 weeks.

**Results:** At 24 hours, adjusted mean differences ( $\Delta$ AM) versus placebo were  $-8.25$  ( $p=0.001$ ),  $-5.71$  ( $p=0.019$ ) and  $-5.67$  ( $p=0.046$ ) and at 48 h were  $-7.06$  ( $p=0.013$ ),  $-7.37$  ( $p=0.013$ ),  $-11.02$  ( $p=0.019$ ) in the pooled MIJ821 low dose, high dose, and ketamine groups, respectively. At 6 weeks,  $\Delta$ AM (80% CI) versus placebo on MADRS were  $-6.46$  ( $-11.8, -1.15$ );  $p=0.059$  for low dose MIJ821,  $-5.42$  ( $-10.8, -0.02$ );  $p=0.099$  for high dose MIJ821, and  $-5.24$  ( $-10.4, -0.06$ );  $p=0.097$  for ketamine. Further details on dosing, efficacy, and safety outcomes will be provided.

**Conclusions:** In this proof-of-concept study, MIJ821 was effective and tolerable in TRD. This study was funded by Novartis. Clinical trial.gov: NCT03756129

**Conflict of interest:** Employee of Novartis.

**Keywords:** MIJ821; depression; efficacy; safety

### EPP0543

#### Evaluation of plasma levels of BDNF in patients with disorder depressive

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**Introduction:** According to the World Health Organization (WHO, 2017) depressive disorder continues to be the most widespread and growing mental illness in the world, also assumes that in 2020 depression will have a prevalence equal to one in six individuals. Studies of neuroanatomy have highlighted structural alterations in the hippocampus, striatal nuclei and prefrontal cortex in patients with mood disorders. This alteration in depressed patients is closely related to the secretion of neurotrophic factors, in particular there is a reduction in BDNF (Brain Derived Neurotrophic Factor).

**Objectives:** The objective of this study is to demonstrate which treatments are effective in reducing depressive symptoms that allow the increase of BDNF and consequently the structural homostaticity of the brain.

**Methods:** We have selected data from the literature of the last decade, collected on major search engines such as: Google Scholar, Research Gate, PubMed, Ebsco. Articles collected by selecting the following Keyword: depression, BDNF (Brain Derived Neurotrophic Factor), neuroimaging cognitive behavior therapy.

**Results:** The results show that in patients treated with a single drug treatment or vagus nerve stimulation, repetitive transcranial magnetic stimulation (Lang et al., 2008) or electroconvulsive therapy had improvements in BDNF levels, although compared to drug treatment there are problems of no responders, no compliance and lack of

effectiveness in reducing vulnerability to relapse. In addition, the study has shown that patients treated with cognitive behavioral therapy have reported greater changes in the frontal and temporal cortex reducing both depressive symptoms and the risk of relapse.

**Conclusions:** Underlines the importance of an integrated approach

**Keywords:** Depressive Disorder; plasma level; BDNF

### EPP0544

#### Prevalence of psychoemotional disorders in patients with pathological kinking of the internal carotid arteries

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**Introduction:** Pathological kinking of the internal carotid arteries (PK ICA) is a controversial issue of angioneurology. Patients with PK ICA often present a variety of complaints, such as headache, dizziness, decreased concentration, memory impairment, and general weakness [1].

**Objectives:** To study the prevalence of anxiety and depression in patients with PK ICA.

**Methods:** We studied 132 patients who had PK ICA (main group) and 86 patients without brachiocephalic artery pathology (control group). Hospital Anxiety and Depression Scale (HADS) was used to evaluate anxiety and depression, considering depression or anxiety if the score was  $\geq 10$ . Statistical analysis was performed with SPSS software,  $p$ -value  $< 0.05$  was considered statistically significant.

**Results:** The mean age of the patients in the main group was  $38.4 \pm 5.2$  years, in patients of the control group  $41.2 \pm 4.8$  years, respectively. Anxiety disorders were detected significantly more frequently in the main group of patients than in the control group (35.7% and 10.2%,  $p=0.017$  respectively). The frequency of depressive disorders was comparable in both groups – 13.6% and 14.3%,  $p=0.061$ , respectively. The level of anxiety was also significantly higher in the group of patients with PK compared to the control group ( $14.2 \pm 4.3$  and  $9.7 \pm 3.1$  points,  $p=0.019$ ). patients with PK ICA with anxiety are more likely suffered from depression (10.2% and 5.8%,  $p < 0.001$ ).

**Conclusions:** Anxiety disorders were present in one-third of patients with PK ICA, while depressive disorders were not typical for this group. In patients with PK ICA, in addition to collecting complaints, anamnesis, and evaluating the neurological status, it is advisable to conduct neuropsychological testing. References: 1. Medvedeva LA, Zagorulko OI. Korsakov Journal 2019

**Keywords:** Anxiety; Depression

### EPP0546

#### Pessimistic attributional style for positive life events as a predictor of low mental health in russian sample

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