

using chi-square and t-tests. Multivariate group analyses were performed using logistic regression.

**Results:** Of the regression analysis indicate that fearfulness about death significantly predicts suicide attempt history (OR=10.560,  $p=.05$ ). Ethnicity was also found to significantly predict suicide attempt history (OR=0.67,  $p=.006$ ). No other sociodemographic variables or volitional moderators were significant.

**Conclusions:** Results of this study contribute to improving accuracy in this area and suggest that fearlessness about death should be routinely included in comprehensive suicide risk assessments.

**Disclosure:** No significant relationships.

**Keywords:** Integrated Motivational Volitional Model; Volitional factors; suicide attempters; Suicide

## EPV0700

### Eeg coherence in depressive female adolescents with different types of auto-aggressive behavior

A. Iznak<sup>1\*</sup>, E. Iznak<sup>1</sup>, E. Damyanovich<sup>1</sup> and I. Oleichik<sup>2</sup>

<sup>1</sup>Laboratory Of Neurophysiology, Mental Health Research Centre, Moscow, Russian Federation and <sup>2</sup>Clinical Department Of Endogenous Mental Disorders And Affective States, Mental Health Research Centre, Moscow, Russian Federation

\*Corresponding author.

doi: 10.1192/j.eurpsy.2021.2189

**Introduction:** Intracortical interactions reflected in EEG coherence (Coh) play an important role in the control of behavior in both norm and mental disorders. EEG Coh in depression is less than in the norm. Non-suicidal self-injuries (NSSI) are widespread in adolescents and represent a significant risk factor for consequent suicidal attempts (SA).

**Objectives:** The aim of the study was to identify the differences in EEG coherence between depressive female adolescents who have NSSI or NSSI and SA in their history compared with healthy controls.

**Methods:** 75 depressive female adolescents (16–25 years old) were enrolled in the study and divided into two subgroups: NSSI ( $n=38$ ) and NSSI+SA ( $n=37$ ). The control group included 20 healthy subjects (HC) matched by age and gender. Baseline EEG was recorded, and EEG coherence was analyzed in 8 narrow frequency sub-bands.

**Results:** In the NSSI subgroup, the number of “high coherent connections” (pairs of EEG leads with  $Coh>0.80$ ) was the lowest in comparison with the NSSI+SA subgroup (intermediate values) and HC (the highest values) in theta-1 (4-6 Hz), theta-2 (6-8 Hz), alpha-1 (8-9 Hz) and alpha-2 (9-11 Hz) EEG frequency sub-bands, especially in frontal-central-parietal regions.

**Conclusions:** The lowest EEG coherence in the NSSI subgroup suggests that this subgroup is “more depressive” than the NSSI+SA subgroup, while the NSSI+SA subgroup is “more normal” but has increased suicidal risk. The results obtained suggested the use of EEG Coh data to clarify the degree of suicidal risk in depressive adolescents with different types of auto-aggressive behavior. The study supported by RBRF grant No.20-013-00129a.

**Disclosure:** No significant relationships.

**Keywords:** EEG coherence; Depression; auto-aggressive behavior; female adolescents

## EPV0701

### The program of complex differentiated medical and psychological rehabilitation of suicidal behavior in dementia

I. Mudrenko\*, O. Potapov and E. Alswaer

Department Of Neurosurgery And Neurology, Sumy State University, Sumy, Ukraine

\*Corresponding author.

doi: 10.1192/j.eurpsy.2021.2190

**Introduction:** The course of dementia is accompanied by aggression, wandering, agitation, sexual and eating disorders, suicidal behavior (SB).

**Objectives:** Develop and appropate a program of medical and psychological rehabilitation (MPRP) SB in patients with dementia.

**Methods:** It were treated 199 patients with SB in dementia of which 107 get cured according to the developed programs and 92 people received traditional treatment.

**Results:** The program of MPRP combines pharmacotherapy, psychotherapy psychoeducation, psychological training and developed taking into account the mechanisms and predictors of SB. The program included phases: diagnostic phase, phase of active intervention, psychoprophylactic phase. Pathogenetic treatment of dementia was performed with acetylcholinesterase inhibitors and / or NMDA-receptor blockers for 4-6 months. Patients with dementia with a depressive mechanism of SB were additionally prescribed antidepressants from the class of SSRIS for 3-4 months; with the psychotic mechanism of SB – atypical neuroleptics (risperidone, quetiapine) for 2-3 months. The system of psychotherapeutic and psychosocial intervention included rational and family psychotherapy, cognitive training, self-care training and psychoeducation for patients with the cognitive mechanism of SB – art therapy and family psychotherapy, communicative trainings and psychoeducation for patients with the depressive mechanism of SB; crisis psychotherapy and art therapy, social skills training and psychoeducational classes for patients with a psychotic mechanism. Improvement of mental state and reduction of symptoms of SP were diagnosed in 72.9% of patients, and after the use of traditional forms of prevention – only in 40.2% ( $DC=2.58$ ;  $MI=0.43$ ,  $p>0.001$ ).

**Conclusions:** The results of approbation MPRP program in SB testify to its effectiveness.

**Disclosure:** No significant relationships.

**Keywords:** dementia; suicidal behavior; medical and psychological rehabilitation

## EPV0702

### Neuroimaging correlates of suicidal behavior in dementia

I. Mudrenko and O. Kolenko\*

Department Of Neurosurgery And Neurology, Sumy State University, Sumy, Ukraine

\*Corresponding author.

doi: 10.1192/j.eurpsy.2021.2191

**Introduction:** At pathomorphological research of suicides reveal neurogenerative changes, which determines the relevance of the

search for neuroimaging predictors (suicidal behavior) SB in dementia.

**Objectives:** To study predictors of SB (in dementia, due to Alzheimer's disease (AD), vascular (VD), mixed (MD) based on neuroimaging research.

**Methods:** We examined 213 patients with dementia in AD, VD, MD on a CT, which were divided by the factor of the presence of SB into the main and control groups.

**Results:** At patients with SB at AD expansion of basal cistern is revealed of the brain (59%), but signs of chronic ischemia in the form of a decrease in the density of brain matter in the projection of the basal ganglia and white matter (67%), dilation of the ventricular system of the brain (51%), more typical for patients without SB. At VD with SB periventricular leukoencephalopathy (67%), expansion of subarachnoid spaces (82%) and deepening of cracks of a brain (67%) are found. Patients without SB were characterized by a decrease in the density of brain matter in the projection of the white matter (73%). At MD with SB expansion of subarachnoid spaces (100%), basal cistern of a brain (87%), periventricular leukoencephalopathy (87%), decrease in density of substance in the brain were registered in the projection of the basal ganglia (100%). Patients without SB with MD had deepening of the brain sulci (40%).

**Conclusions:** Neuroimaging signs in the form of chronic ischemia and pronounced atrophic changes in the brain are factors in the anti-risk of SB in dementia.

**Disclosure:** No significant relationships.

**Keywords:** suicidal behavior; neuroimaging changes; dementia.

### EPV0703

#### Frequency and correlates of suicidal ideation in preoperative cardiac surgery patients

O. Nikolaeva<sup>1</sup>, E. Nikolaev<sup>2\*</sup>, D. Hartfelder<sup>3</sup>, E. Lazareva<sup>3</sup>, S. Petunova<sup>3</sup> and N. Grigorieva<sup>3</sup>

<sup>1</sup>Cardiosurgery, Republic Cardiology Clinic, Cheboksary, Russian Federation; <sup>2</sup>Medical Faculty, Ulianov Chuvash State University, Cheboksary, Russian Federation and <sup>3</sup>Social And Clinical Psychology, Ulianov Chuvash State University, Cheboksary, Russian Federation

\*Corresponding author.

doi: 10.1192/j.eurpsy.2021.2192

**Introduction:** Depressive disorders are common for cardiac patients; however, a surgical intervention enhances their distress. How typical is suicidal ideation for cardiac surgery patients and with what clinical and psychological signs does it correlate?

**Objectives:** To estimate the frequency of suicidal ideation and correlations between suicidal ideation, clinical and psychological manifestations in cardiac surgery patients.

**Methods:** We examined 60 cardiac surgery patients, aged 25 – 65, prior to their operation. The Pearson correlation between manifestation of suicidal ideation, clinical and psychological signs was calculated with  $p < 0.05$ .

**Results:** We revealed suicidal ideation in 3.33% of cardiac surgery patients. Its intensity credibly correlated with the frequency of taking alcohol ( $r = .32$ ), as well as with manifestation of dysorexia ( $r = .59$ ), dissatisfaction with life ( $r = .53$ ), general level of depression ( $r = .49$ ), sleeping disorders ( $r = .44$ ), sense of guilt ( $r = .43$ ), asthenia ( $r = .31$ ), self-abhorrence ( $r = .29$ ), and irritability ( $r = .29$ ). A higher level of suicidal ideation correlated with a lower index of Positive-Past in

their personal time perspective ( $r = -.27$ ), which revealed itself in a patient having lack of positive impressions and recollections of their past life, which reduced a person's adaptability in the present.

**Conclusions:** The frequency of suicidal ideation in preoperative cardiac surgery patients is not high. Nevertheless, we should bear in mind that high suicidal risk is characteristic for patients with not only depression, but also alcohol problems, as well as for those who have manifestations of negative attitude to their past.

**Disclosure:** No significant relationships.

**Keywords:** Suicidal ideation; Suicidal risk; time perspective; cardiac surgery patients

### EPV0704

#### Neurophysiological features associated with suicidal risk in dementias

I. Mudrenko and A. Yurchenko\*

Department Of Neurosurgery And Neurology, Sumy State University, Sumy, Ukraine

\*Corresponding author.

doi: 10.1192/j.eurpsy.2021.2193

**Introduction:** The bioelectrical activity of the brain of suicidals has specific features.

**Objectives:** Investigate neurophysiological features associated with high suicidal risk (SR) in dementias.

**Methods:** An electroencephalographic study of brain was performed in 66 patients with dementia, of which 33 (with high SR) were included in the main group, the other 33 (with low SR) – in the control group.

**Results:** SR correlates include an increase in the spectral density and amplitude (in  $\mu V$ ) of the  $\alpha$ -rhythm in the right central (C4) (109.4) – in the main group, compared with (64.5) – in the control; in the temporal areas (T4) (132.2) - in the main group, (70.0) – in the control group ( $p < 0.001$ ). The predominance of the spectral density of the slow  $\theta$ -rhythm over the entire surface of the brain ( $p < 0.001$ ) and  $\delta$ -rhythm in the projection of Fp2 (82.3) – in the main and (116.1) – in the control groups ( $p < 0.001$ ), F3 (54.80) and (68.1), respectively, ( $p < 0.05$ ), F4 (52.4) and (67.3), respectively, ( $p < 0.01$ ), C4 (52.0) and (62.0), respectively ( $p < 0.05$ ), P3 (44.4) and (58.9), respectively, ( $p < 0.01$ ), O1 (67.6) and (89.41), ( $p < 0.001$ ), O2 (68.5) and (85.8), respectively ( $p < 0.001$ ) are a predictor of low SR in dementias.

**Conclusions:** With the progression of changes in the brain in dementias SR decreases. In the initial phases of the dementing process with a relatively preserved functional capacity of the brain SR is high.

**Disclosure:** No significant relationships.

**Keywords:** electroencephalographic correlates; suicidal risk; dementias.

### EPV0706

#### Epidemiological profile of the suicidal in the third poorest state of Brazil

G. Lessa De Souza Maia\* and M. Melo Gomes Do Nascimento  
Medicine, Centro Universitário Tiradentes, Maceió, Brazil