

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 slits (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

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**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 Pierson 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

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**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

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