

EPP0259

Predictors of compliance in adolescents with type 1 diabetes mellitus

L. Pechnikova¹, Y. Manuylova¹, A. Ryzhov^{1*}, E. Zhuykova², E. Sokolova¹ and A. Tkhostov¹

¹Faculty Of Psychology, Lomonosov MSU, Moscow, Russian Federation and ²L.s. Vygotsky Institute Of Psychology, Russian State University for the Humanities, Moscow, Russian Federation

*Corresponding author.

doi: 10.1192/j.eurpsy.2021.673

Introduction: Non-compliance is a common problem in diabetes despite of the potentially drastic consequences. The study of the factors of compliance in adolescents with diabetes is not only important due to the possible practical implementations in health care, but also may be threatened as a model for understanding the age-specific aspects of compliance behaviours.

Objectives: The study was aimed to evaluate various, primary family-related, factors contributing to compliance behaviour.

Methods: Participants: 71 adolescents (f=44, m=27, age: 13-17) with diabetes mellitus type 1, without insulin pump usage, and their mothers. Instruments: compliance was assessed with MMAS and "Degree of compliance" (for 15-17-olders only) scales. Paternal attitudes were assessed by (1) ADOR questionnaire, yielding scores for: Positive interest, directiveness, hostility, autonomy, inconsistency; (2) Family anxiety analysis questionnaire, with scales: guilt, anxiety, tension. Illness attitudes were assessed with the Concerns of the illness progression model questionnaire. Interview data were used to assess such variables as duration of illness, frequency of therapist consultations y etc.

Results: Stepwise regression analysis suggested the best model for compliance being predicted ($R^2=.203$) by family anxiety ($\beta=-.406$, $p<.001$), duration of illness ($\beta=-.218$, $p<.05$) and frequency of consultations ($\beta=.0212$, $p<.05$). For 15-17-olders only compliance was better predicted ($R^2=.499$) by concerns about illness ($\beta=.876$, $p<.001$), distraction copings ($\beta=.501$, $p=0.001$), negative thinking ($\beta=-.421$, $p<0.02$) and frequency of consultations ($\beta=.274$, $p<.05$).

Conclusions: Low family anxiety, shorter duration, and more frequent contacts with therapist, as well as productive copings, absence of frequent negative thoughts and fantasies about illness contribute to compliance. Negative emotions hamper compliance instead of fostering it.

Keywords: compliance; diabetes; adolescents

EPP0258

Neuropsychiatric complications of traumatic brain injury

C. Fernandes Santos*, A.B. Medeiros, R. Gomes and N. Descalço Psychiatry And Mental Health Department, Hospital Garcia de Orta, E.P.E., Almada, Portugal, Portugal

*Corresponding author.

doi: 10.1192/j.eurpsy.2021.674

Introduction: Traumatic brain injury (TBI) is a leading cause of morbidity and mortality, giving rise to a variety of neuropsychiatric syndromes associated with great functional impairments, chronic

disability and poor quality of life. Depending on diagnostic criteria, 20-90% of victims of TBI develop at least one neuropsychiatric manifestation in the first month, and about 40% present at least three symptoms during three months, with higher incidence in females. Survivors of TBI are at increased risk for development of severe, long-term psychiatric disorders. The aetiology of these disturbances remains unclear.

Objectives: To review current knowledge on the neuropsychiatric consequences associated with TBI.

Methods: Non-systematic review of literature through search on PubMed/MEDLINE database for publications up to 2020, following the terms "traumatic brain injury" and "neuropsychiatry".

Results: Although the experience of neuropsychiatric symptoms may be temporary and may resolve in the acute period, many patients with TBI can experience psychopathology that is persistent or that develops in the post-acute period, regardless of injury severity. These symptoms can involve personality changes, psychosis, major depression, generalized anxiety disorder, post-traumatic stress disorder, maladaptive social behaviours, poor disability adjustment, reduced coping skills and cognitive impairment. Evidence remains insufficient to conclude the role of TBI-related neuropathological consequences in the development of post-TBI neuropsychiatric disorder. Non-organic factors are also implicated in its generation and maintenance.

Conclusions: Neuropsychiatric sequelae are common following TBI. Several of these syndromes are amenable to treatment. Further investigations are required to better understand the mechanistic aetiology of these conditions and the effectiveness of therapeutic modalities.

Keywords: postconcussion; traumatic brain injury; neuropsychiatry

EPP0259

Antioxidant capacity as a novel biomarker of delirium after cardiac surgery

J. Kaźmierski¹, A. Pawlak^{2*}, P. Miler³, H. Jerczyńska⁴, J. Woźniak⁵, E. Frankowska⁵, K. Woźniak⁶, A. Brzezińska⁵ and M. Wilczyński⁷

¹Department Of Old Age Psychiatry And Psychotic Disorders, Medical University of Lodz, Łódź, Poland; ²Department Of Affective And Psychotic Disorders, Central Clinical Hospital, Łódź, Poland;

³Department Of Adolescent Psychiatry, Central Clinical Hospital, Łódź, Poland; ⁴Corelab Central Laboratory Of Medical University Of Lodz, Medical University of Lodz, Lodz, Poland; ⁵Department Of Old Age Psychiatry And Psychotic Disorders, Central Clinical Hospital, Lodz, Poland; ⁶Department Of Cardiac Surgery, Central Clinical Hospital, Lodz, Poland and ⁷Department Of Cardiac Surgery, Medical University of Lodz, Lodz, Poland

*Corresponding author.

doi: 10.1192/j.eurpsy.2021.675

Introduction: Coronary-artery bypass graft (CABG) surgery is known to improve cardiac function and decrease mortality, albeit, this method of treatment is associated with a high risk of postoperative delirium. The pathophysiology of delirium after cardiac surgery is largely unknown.

Objectives: To investigate whether oxidative stress reflected by decreased preoperative and postoperative plasma antioxidant capacity (AC) is independently associated with delirium after cardiac surgery. Furthermore, to assess whether the association

between AC and the level of soluble receptor for advanced glycation end-products (sRAGE) exists.

Methods: The patients were examined 1 day preoperatively with the Mini International Neuropsychiatric Interview and MMSE test to screen for depression, anxiety disorders, and for cognitive impairment, respectively. Blood samples for AC and sRAGE levels were collected both preoperatively and postoperatively. The CAM ICU and MDAS were used within the first 5 days postoperatively to screen for a diagnosis of delirium.

Results: Postoperative delirium developed in 34% (61 of 177) of participants. Multivariate stepwise logistic regression analysis revealed that patients with low baseline AC are at significantly increased risk of developing delirium. Moreover, preoperative AC levels were inversely correlated with postoperative sRAGE concentrations (Spearman's Rank Correlation -0.198; $p < 0.05$). The most optimal cutoff values of the preoperative and postoperative AC that predict the development of delirium were 1.720 mM and 1.893 mM, respectively.

Conclusions: Decreased plasma AC levels are associated with delirium after cardiac surgery and inversely correlated with post-surgery sRAGE concentration. This may be an important pathophysiological consideration in the increased risk of postoperative delirium seen in cardiac surgery patients.

Keywords: Cardiac surgery; oxidative stress; Major depressive disorders; delirium

EPP0260

Raised preoperative monocyte chemoattractant protein-1 as the independent predictor of delirium after cardiac surgery. A prospective cohort study.

J. Kaźmierski¹, P. Miler^{2*}, A. Pawlak³, H. Jerczyńska⁴, E. Frankowska⁵, J. Woźniak⁵, K. Woźniak⁶, A. Brzezińska⁵ and M. Wilczyński⁷

¹Department Of Old Age Psychiatry And Psychotic Disorders, Medical University of Lodz, Łódź, Poland; ²Department Of Old Age Psychiatry And Psychotic Disorders, Medical University of Lodz, Łódź (Łódź-Górna), Poland; ³Department Of Affective And Psychotic Disorders, Central Clinical Hospital, Łódź, Poland; ⁴Corelab Central Laboratory Of Medical University Of Lodz, Medical University of Lodz, Lodz, Poland; ⁵Department Of Old Age Psychiatry And Psychotic Disorders, Central Clinical Hospital, Lodz, Poland; ⁶Department Of Cardiac Surgery, Central Clinical Hospital, Lodz, Poland and ⁷Department Of Cardiac Surgery, Medical University of Lodz, Lodz, Poland

*Corresponding author.

doi: 10.1192/j.eurpsy.2021.676

Introduction: Delirium is a frequent and serious complication of cardiac surgery. However, the knowledge regarding pathogenesis of postoperative delirium is limited.

Objectives: To investigate whether increased levels of monocyte chemoattractant protein-1 (MCP-1) and hyper-sensitive C-Reactive Protein (hsCRP) are associated with postoperative delirium in cardiac surgery patients.

Methods: Patients were examined and screened for major depressive disorder (MDD) and cognitive impairment one day preoperatively, using the Mini International Neuropsychiatric Interview and The Mini-Mental State Examination Test. Blood samples were collected pre- and postoperatively for hsCRP and chemokine levels. Following

surgical interventions, the Confusion Assessment Method for the Intensive Care Unit and the Memorial Delirium Assessment Scale with the cut-off score 10 were used to diagnose delirium.

Results: Postoperative delirium screening was found positive in 34% (61 of 177) of patients. Both, pre- and postoperative hsCRP, and preoperative MCP-1 levels were associated with postoperative delirium in univariate comparisons; $p = 0.001$; $p = 0.0004$; $p < 0.001$, respectively. However, according to a multivariate stepwise logistic regression analysis only MCP-1 concentration raised before surgery was independently associated with postoperative delirium, and related to advancing age of participants (Spearman's Rank Correlation 0.192; $p = 0.0103$). According to ROC analysis, the most optimal cut-off for MCP-1 concentration in predicting the development of delirium was 371.81 ng/ml with sensitivity of 77.0% and specificity of 58.6%.

Conclusions: The present study suggests that raised preoperative MCP-1 concentration is independently associated with delirium after cardiac surgery. Preoperative monitoring of pro-inflammatory markers combined with regular surveillance may be helpful in the prediction and early detection of postoperative delirium in this patient group.

Keywords: delirium; Cardiac surgery; Inflammation; Major depressive disorders

EPP0263

Structure of personal disorders in hypertensive disease patients

N. Chernus^{1*}, S. Sivkov², A. Serdakova³, A. Sivkov⁴ and T. Savina¹

¹Department Of Outpatient Therapy, I.M. Sechenov First Moscow State Medical University: Moscow, Russia, Moscow, Russian Federation; ²Phd In Medicine, Associate Professor Of The Department Of Clinical Pharmacology And Internal Diseases Propaedeutics, the I.M. Sechenov First Moscow State Medical University, Moscow, Russian Federation; ³Department Of Psychology, the I.M. Sechenov First Moscow State Medical University, Moscow, Russian Federation and ⁴The Department Of Clinical Pharmacology And Internal Diseases Propaedeutics, the I.M. Sechenov First Moscow State Medical University, Moscow, Russian Federation

*Corresponding author.

doi: 10.1192/j.eurpsy.2021.677

Introduction: The structure of personal disorders in hypertensive disease patients remains relevant topic.

Objectives: The study population included 57 hypertensive disease patients; mean age 49,1+9,6 years old (42 females and 15 males). The control group included 62 healthy individuals (49 females and 13 males); mean age 48,1+8,6 years old.

Methods: Emotional condition of subjects was assessed using the Depression Scale of Zung, the Spielberger trait Anger scale and Anxiety, the Toronto Alexithymia Scale and SCL - 90-R Questionnaire.

Results: The study results showed that as compared to the healthy individuals, the hypertensive disease patients showed significantly higher scores of reactive anxiety (46,0+9,0 and 39,0+8,2; $p < 0,01$), personal anxiety (50,3+9,2 and 41,03+7,9; $p < 0,01$), depression (42,7+7,2 and 36,59+5,95; $p < 0,01$), alexithymia (69,4+8,8 and 59,0+9,2; $p < 0,01$), state anger (11,8+3,6 and 10,6+1,8; $p < 0,01$), reactive anger (9,2+2,6 and 8,1+2,4; $p < 0,05$), personal anger (21,4+5,3 and 18,1+4,6; $p < 0,01$), trait anger (8,3+3,0 and 7,3+2,3; $p < 0,05$), self-aggression (16,2+4,9 and 13,4+3,8; $p < 0,01$), aggression towards