S252 E-Poster Presentation

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 preopertively 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 inversly 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 inversly 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.

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**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

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**Introduction:** The struture of personal disorders in hypertensive disease aptients 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