0.98 p<0.0001), hs-CRP (AUC 0.958 p<0.0001) and uric acid (AUC 0.97 p<0.0001) with ROC curve analysis in patients with CHF (Figure).

Conclusion: We identified 29 miRNAs that were elevated in patients with CHF, among which miR-4278, miR-516-a-5p and miR-1228 were most significant in terms of clinical diagnosis. This study demonstrates the value of miR-4278, miR-516-a-5p, miR-1228 as potential diagnostic biomarkers in CHF.

Diagonal segments are produced by ties.
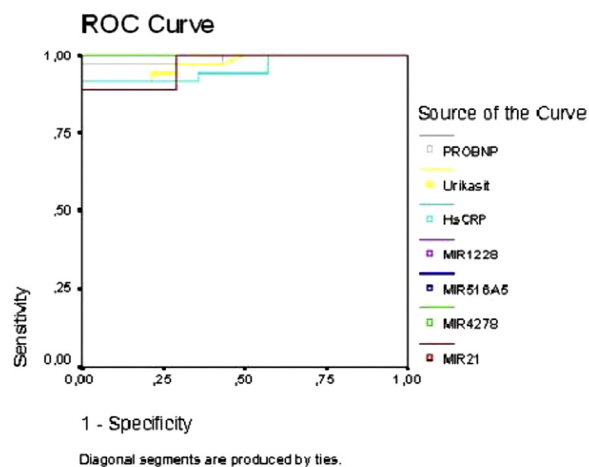
OP-044

Plasma Osmolality Predicts Mortality in Patients with Heart Failure

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Purpose: Heart Failure (HF) is a fatal disease. Several biomarkers are of interest with regard to prognosis. However, plasma osmolality which unites the individual influences of sodium, BUN and glucose has not been studied.

Methods: 496 patients with HF out of two participating centers were investigated as part of a larger cohort and followed up to 111 months. Plasma osmolality was calculated as "(2*Na)+(BUN/2.8)+(Glucose/18)". When ROC curve was obtained, it was noticed that the curve is sigmoid shaped. Hence three subcategories were identified. Patients were classified into three groups as follows: Those with plasma osmolality<287 mOsm/kg (hypoosmolality), those with osmolality between 287-295 (normoosmolality, blue line in figure), and those with plasma osmolality>295 mOsm/kg (hyperosmolality).

Results: Mean EF of the cohort was 27±10% with a mean age of 55.9±17.8 years (369 males, 127 females) Patients were followed up for 27±23 months and mortality was noted. Kaplan Meier curves for three subcategories of plasma osmolality separated from each other (p=0.0296, Figure 1). After follow up, 42.6% of those with low osmolality, 34.7% of those with high osmolality versus 22.8% of those with normoosmolality died (p=0.0003). It was also noted that up to 40 months of follow up, those with hypoosmolality (red line) had the worst prognosis, then, there was a switch between hypo and hyperosmolality groups with the hyperosmolality group (yellow line) having the worst prognosis thereafter.

Conclusion: Plasma osmolality predicts both mid term and long term mortality of patients.
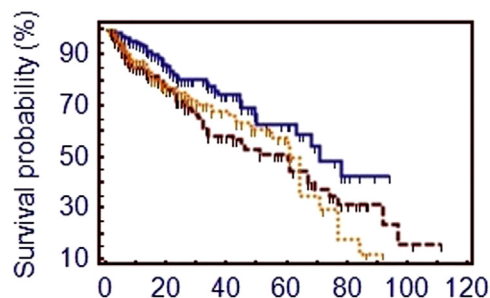
OP-045

Relationship between Red Cell Distribution width and Stroke in Patients with Stable Chronic Heart Failure: A Propensity Score Matching Analysis

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Aim: Although it was shown that increased basal red cell distribution width (RDW) level is an index of hospitalization and mortality of patient with heart failure (HF), the relationship between RDW and risk of stroke has not been investigated comprehensively Therefore, in this particular study, we aimed to investigate the association between baseline RDW level and the risk of stroke in heart failure patients.

Methods: One hundred-fifty three consecutive HF patients [NYHA I–III and left ventricular ejection fraction (LVEF) of <40%] were included in this prospective study. All patients were followed up for one year and during this period cerebrovascular disease was questioned.

Results: In matched population, using propensity score matching, HF patients suffering from stroke compared with patients without stroke we found significantly increased basal RDW and serum uric acid. The ROC curves of RDW for predicting stroke is shown that RDW ≥15.2% measured on admission had 87% sensitivity and 74% specificity in predicting stroke in patients with heart failure (AUC:0.923, 95% CI: 0.852-0.994, p<0.001).

Conclusion: In this study, for the first time in literature, we evaluated the relationship between baseline RDW levels and the risk of stroke in heart failure patients. The study results revealed that elevated basal levels of RDW in stable heart failure patients are significantly associated with stroke, according to propensity score analysis.

OP-046

The Role of Relation between Levels of Erythropoietin and Pathological Cytokine on Patients with Chronic Heart Failure with Anaemic Syndrome

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Purpose: The purpose of investigation to study relation to levels of erythropoietin and pathological cytokine of patients in chronic heart failure with anaemic syndrome and erythropoietinic effect and security of continuous erythropoietin receptor activator methoxy polyethilenglicol-epoietin beta (MEB) its impact on this relation and on regress of symptoms chronic heart failure.

Methods: 94 patients with chronic heart failure of New York Heart Association (NYHA) class III-IV a left ventricular ejection fraction of 40% or less with anaemia were included in investigation. Mean age of patients 59,7±1,6 years (58 males, 36 females). A hemoglobin level of less 120 g/l by males and less 110g/l by females. 46 patients were treated basis treatment of CHF (I group) and 48 patients were treated with MEB (II group). Percutaneous MEB in dose 50 IU in day in one months patients without iron deficiency to receive in follow-up on 6 months. Echocardiographic indices of LV systolic and diastolic function, plasma NT pro BNP, cytocine, erythropoietin, ferritin and 6 minute walked distance were assessed at baseline and posttreatment.

Results: On the patients CHF with anemic syndrome in II group MEB treatment the level Hb increased on 22,4% (p<0,05) and erythropoietin levels in serum plasma increased to 29,3±4,3 IU/ml (p<0,001).The increase the level of erythropoietin connected with the decrease of level pathological cytokines: Il-1on 36,6% (p<0,001), Il-6 on 54,3% (p<0,05),TNF-α on 48,3% (p<0,05) compared with of patients receiving I group. MEB treatment had a significantly increase LVEF on 19,04% (p<0,05) as compared with of patients receiving I group.A greater 6-minute distance walked on exercise testing increased on 76,6% (p<0,05) after treatment MEB.There was also a significant fall in serum NT pro BNP levels from 387,4±52,3 fmol/ml to 198,1±30,3 fmol/ml (p<0,01).

Conclusion: On the patients of CHF with anemic syndrome erythropoietin failure increase sytokincal aggression with worsens clinical picture of the illness. Correction of anemic syndrome with application of percutaneus ME B in dose 50 IU in day in one month in follow-up 6 months effective to improve erythropoietin failure and cytokinic aggression connected to it and anemia; clinical symptoms and quality of life in anaemic CHF patients.

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