PS110

GSTM1 Null Genotype Isn't Associated With Increased Risk of Chronic Heart Failure Among Patients With Diabetes Mellitus

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Introduction: Type-2 diabetes mellitus (T2DM) is a major risk factor for coronary artery disease and ischaemic cheart failure (IHF) resulting in high morbidity and mortality. Glutathione S-transferases M1 are known for their broad range of detoxification. Approximately 50% of white population are homozygous for deletion in GSTM1. Individuals who inherit the homozygous form of the null polymorphism in these genes are less capable of detoxifying specific substrates.
Objectives: To identify potential association between GSTM1 deleted polymorphisms and type-2 diabetes mellitus on the risk of IHF.
Methods: One hundred and twenty patients were included in the study (76 male and 44 female). The criterion for the admission was left ventricular ejection fraction (LVEF)<45%. Sixty nine controls matched for sex and age served as control group (40 male and 29 female). GSTM1 genotype was determined by PCR method.
Results: The frequency of GSTM1 null genotype was higher in patients with IHF (55.8%) compared to controls (49.3%). There were more people with null genotype in the diabetic group (51.2%), but not statistically significant (p>0.05). In the non-diabetic group frequency of null genotype was 57.5%. The effect of GSTM1 null genotype on the risk of IHF was more pronounced in people who didn't have T2DM, but the difference was not statistically significant (OR 1.39, CI=0.73-2.64; p>0.05).
Conclusion: The frequency of GSTM1 null genotype was similar to the results obtained in white population. Diabetics (OR=1.06) and non-diabetics (OR=1.39) had similar risk of heart failure. There was no joint effect of GSTM1 genotype and diabetes mellitus on the risk of ischemic heart failure.
Disclosure of Interest: None Declared

PS112

The Role of CT-apelin on Identifying Non-Responders to Cardiac Resynchronization Therapy

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Introduction: Despite cardiac resynchronization therapy (CRT), almost a third of the heart failure patients fail to develop reverse remodeling.
Objectives: In the recent study our aim was to evaluate the role of C-terminus apelin (CT-apelin) and NT-proBNP in identifying non-responders to CRT.
Methods: Severe heart failure patients with a QRS greater than 120 ms were recruited after successful CRT implantation. Clinical, echocardiographic and laboratory parameters were registered and patients were followed until 3 years. Serum CT-apelin and NT-proBNP levels were measured with ELISA before and 6 months after CRT. The primary endpoint was non-responsiveness to CRT, defined as an absolute increase of <4% in ejection fraction (EF) after 6 months.
Results: Eighty-one patients with a mean EF of 28.5±6.5% were included from which 15 (18.5%) proved to be non-responders. During a mean follow-up time of 795 days, mortality was significantly higher in the non-responder group (HR: 3.75; 95%CI: 1.00-13.97; p=0.049). CT-apelin at 6 months showed good diagnostic value in identifying non-responders to CRT (AUC: 0.778, p=0.013). Patients with high CT-apelin levels had a 10-fold odds for non-responsiveness (p=0.036). NT-proBNP levels at six months also discriminated between responders and non-responders (AUC: 0.746, p=0.005). However, multivariate ROC-test showed the superiority of CT-apelin over NT-proBNP (CT-apelin: p=0.013, NT-proBNP: p=0.125), which was also confirmed in multivariate logistic regression analysis (CT-apelin: p=0.01, NT-proBNP: p=0.41). Baseline levels of CT-apelin and NT-proBNP did not predict non-responsiveness.
Conclusion: Non-responders have a higher risk for mortality after CRT implantation. Our results suggest that six-month levels of CT-apelin may be a valuable biomarker to identify such patients.
Disclosure of Interest: None Declared

PS113

Long-Term Mortality in Patients With «Early» and «Late» Response to Cardiac Resynchronisation Therapy

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Introduction: Response to cardiac resynchronisation therapy (CRT) can be relatively «early» and «late» but the relationship between time of the best response and long-term mortality still remains unclear.
Objectives: To analyze the relationship between time of the best response and mortality in patients with congestive heart failure (CHF).
Methods: 106 CRT patients (mean age 54.7±9.9 years, 83% men) with CHF (58% ischemic and 42% non-ischemic etiology) II-IV NYHA functional class were enrolled. At baseline, 1 months, 3 months and each 6 months after implantation we evaluated clinical and echocardiographic parameters. In 26 patients the best decrease of left ventricular end-systolic volume (LVESV) was achieved up to 3 months (1.2±0.9 months, I group – «early» response) and in 80 patients – after 3 month (22.2±14.7 months, II group – «late» response). Groups did not differ in clinical characteristics, NYHA functional class, QRS duration and parameters of mechanical dyssynchrony.
Results: In I group LVESV (p=0.048) and left ventricular end-diastolic volume (LVEDV) (p=0.047) were significantly higher. Multiple logistic regression did not show significant dependency between LVESV, LVEDV and the time of response. In Kaplan-Meier analysis mortality in II group was significantly lower (3.8% vs 26.9%; p=0.001). Cox regression showed that LVESV (HR 1.004; 95% CI 1.005–1.024; p=0.002) and the time of response (HR 5.677; 95% CI 1.332–24.193; p=0.019) were associated with long-term mortality.
In the II group responders (decrease in LVESV ≥15%) were identified significantly more frequently (90% vs 61.5%; p=0.001), all patients with decrease of LVESV ≥30% (super responders) had «late» response. During follow-up period (34.9±16.1 months) increase in left ventricular ejection fraction (LVEF) (p=0.004) and decrease in LVESV (p<0.001) was more evident in patients with «late» response.
Conclusion: Patients with «early» response to CRT show significantly lower improvement in LVEF and LVESV compared to patients with «late» CRT response. «Early» response and greater LVESV are associated with higher mortality rate.
Disclosure of Interest: None Declared

PS116

Contemporary Management of Heart Failure With Reduced Ejection Fraction in Russia: Lessons Learned From the Russian Hospital Heart Failure Registry (RUS-HFR)

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Introduction: Registries remain the primary source of real-world data on hospitalized HF patients.
Objectives: The aim of RUS-HFR was to obtain real-life contemporary analysis of the HF management and 1.5-year outcomes of inpatients with chronic systolic HF in RF.
Methods: The RUS-HFR is a prospective, multicentre, observational study conducted in 3 Card.Centers (№1-St.Petersburg, №2-Samara, №3-Orenburg). Inclusion criteria: HF NYHA I-IV, LVEF≤40%, age 18-75 yrs.
Results: From Oct 2012 to Jan 2014, 524 patients were enrolled. Age 60.0±9.6 yrs; 80.5% men; most patients with HF III NYHA. NT-proBNP was checked only in a 3% of patients. CRT(4.5%) and ICD(5.2%) have been previously implanted in patients from clinic №1. 25% of patients to begin therapy with one of the main drugs or diuretic in the hospital for the first time. RAS blockers, β-AB, MRAs and diuretics were used at hospital discharge in 82.3-87.3%, 76.3-95.8%, 65.9-81.1% and 80.7-94.6% of patients, respectively. The median duration of hospital stay for HF decompensation was 18(13-26) days. Indications for implantation of ICD/CRT and heart transplantation were determined in 0-21.2% and in 0-6.6% of cases. After discharge HF patients were under the supervision of a cardiologist/therapist in the 43-72%/15-42% cases, and 7-18% of patients did not visit a doctor at all. Dose reduction of main drugs and the proportion of patients receiving them were observed after 1.5 years. The all-cause death and hospitalization for HF decompensation were 12-26% and 16-47%, respectively.
Conclusion: RUS-HFR showed that over the past 10 years the proportion of HF patients undergoing electrophysiologic intervention has increased while the number of patients receiving RAS blockers, β-AB and MRAs is comparable with European registers, but post-discharge mortality and readmission rates have remained largely unchanged. The greatest number of inconsistencies recommendations for obligatory drug therapy was detected at the outpatient stage and high-tech methods of treatment in hospitals were not often enough recommended. Duration of HF hospitalization significantly exceeds that determined for the patients in Europe and U.S., however, helps to optimize the dose levels of main drugs and diuretics for the treatment of HF.
Disclosure of Interest: None Declared

PS117

A Retrospective Cohort to Study the Mortality and Survival Rate in Chronic Heart Failure (CHF) Patients After Multidisciplinary Heart Failure Reversal Therapy (HFRT)

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Introduction: India will have nearly 61 million coronary heart disease (CHD) cases which would to lead to 3.4 million of deaths by year 2015. So we thought that Heart Failure Reversal Therapy (HFRT), a Multidisciplinary non-interventional therapy, of 6 days can be provide convincing beneficial outcomes in chronic heart failure (CHF) patients.