patients had less SOB and a lot of weight loss. Smaller size of the abdomen, So the mechanism of improvement in HF is by removing the extravascular fluid. There is mild change in the PADP unless the causes of cardiomyopathy were reversed.

CONCLUSIONS At the present time, the success treatment of a patient with NYHA FC 3, is to control the problem with BB and ACEI. However, the long term symptomatic improvement depends on the removal of extravascular fluid and advances on the rehab program.

GW27-e1256

EFFICACY EVALUATION OF BETA BLOCKERS IN THE PATIENTS WITH CHRONIC HEART FAILURE IN RELATION TO THE STATE OF BETA1-ADRENORECEPTORS

Umida Kabirovna Kamilova, Tohirahon Alieva, Kodir Boboev
Tashkent Medical Academy, Institute Gematology, Uzbekistan

OBJECTIVES To evaluate efficacy of beta blockers - carvedilol and bisoprolol in the patients with chronic heart failure (CHF) in relation to the state of β1 - adrenoreceptors.

METHODS There were studied 72 males at the age from 40 to 55 years with postinfarction cardiosclerosis (PICS). All the patients were divided into two groups: group I included 55 patients with FC II CHF and group 2 was comprised of 37 patients with CHF FC III. In group I 17 patients and from group II 19 patients received bisoprolol and 18 patients in group I and II received carvedilolol. Genotyping was performed with PCR method.

RESULTS There was noted initial increase in density of β2 - adrenoreceptors in the patients with CHF FC II and III y 176,2 and 204,9% ($P<0,001$), that was accompanied by desensitization of adenylate cyclase system: in the patients with FC II XHF the basal activity of edenylate cyclase was 4,15±0,14 pmol/mg/min, with FC III CHF 3,56±0,13 pmol/mg/min against 6,1±0,19 pmol/mg/min in control group. In genotyping there was noted that more marked reduction of basal activity was revealed in group Gly389 homozygote in comparison with group Arg389. During genotyping Arg389 homozygote carvedilol showed more strong effect. There was noted reduction of density of β2-AP in group Arg389 by 32,7%.

CONCLUSIONS Treatment with carvedilol provided normalization of the correlation of beta-receptors in group of patients with genotyping Arg389.

GW27-e1217

NEW Mechanism Explaining Fluid overload in patient with diastolic Heart Failure or Heart Failure patient with preserved ejection fraction : When the veins cause hypertension in the artery

Thach Nguyen,[1,2] Advait Soni,[2] Ryan Phan,[3] Truong DX Tran,[4] Tung Mai,[5] Duane Pinto[6]
[1]Methodist Hospital, Merrillville IN USA; [2]St Mary Medical Center, Hobart IN, USA; [3]Notre Dame University, South Bend IN, USA; [4]Tan Tao University Medical School, Long An, Vietnam; [5]Detroit Medical Center, Detroit MI, USA; [6]Beth Israel Deaconess Medical Center, Boston MA, USA

OBJECTIVES Current definitions of diastolic heart failure (DHF) or HF with preserved ejection fraction (EF) are vague and impractical. So we suggest a new classification of DHF. The classification is based on the presence fluid overload in 2 compartments of the body: intravenous and extravascular compartment. Because the ejection fraction is normal so the patient should not have hypo-perfusion in the arterial system, unless the patient is over-diuresed.

METHODS From the emergency room, the patients with diagnosis of HF with preserved EF were enrolled. The physical examination was recorded for fluid overload in the venous system, mainly by the presence of rales in the lung and by painful sensation with a minimal punch in the right lower rib cage (which means liver is congested or overloaded with fluid). Fluid overload in the extravascular system is defined by fluid infiltration in the abdominal wall, edema at the ankle, thigh, dependent areas. Low perfusion in three other arterial compartments, mainly cerebral (causing dizziness or change of mental status), renal (causing pre-renal azotemia (increased blood urea nitrogen) and distal peripheral arterial system (causing fatigue or exercise intolerance). The study group underwent the new Expansibility of the Femoral Vein (EFV) and had treatment based on its results. The EFV is the ultrasound study of the femoral vein examining its size and expansibility during strong cough. In general, the location of the femoral artery and vein to be checked is the sagittal plane immediately proximal to the bifurcation of the superficial and deep femoral artery. The size of the femoral vein is a little larger than the size of the femoral artery. If the size of the femoral vein during cough is 3 times larger than the one at baseline, the test is considered normal. If the size of the femoral vein is >3 times larger than then baseline, it is considered abnormal suggesting excessive venous pooling. If the femoral vein expands only <2 times of the baseline during cough, it is considered abnormal suggesting present or future pulmonary hypertension. If this test was done in conjunction with a right heart catheterization, then the femoral vein pressure at baseline and during cough is recorded.

RESULTS 25 patients were enrolled from January 2015 to April 2016. 20/25 (80%) patients with HF and preserved EF showed extravascular fluid overload while the size of the femoral vein is small or mildly enlarged without good expansion upon cough. This finding explains that the cause of intravenous fluid overload is due to the inability of the venous system to expand in order to accommodate the larger amount of blood. This means that the cause of diastolic dysfunction is from the peripheral veins and not from the central pulmonary artery.

CONCLUSIONS The patients with HF and preserved EF, the presence of edema mainly in the extravascular compartment is caused by the failure of the venous system to accommodate larger amount of fluid. This is a new disease caused by increased stiffness of the venous system. Larger scale of clinical trial or registries of this new technique are needed.

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CORRECTION NEUROHUMORAL DISORDERS IN THE PATIENTS WITH CHRONIC HEART FAILURE

Umida Kabirovna Kamilova, Zulfya Rasulova, Dilafruz Masharipova
Republican Specialized Scientific Practical Medical Centre of Therapy and Medical Rehabilitationt, Uzbekistan

OBJECTIVES To study dynamics of the levels of brain natriuretic peptide Nt-proBNP, aldosteron (AL) and noradenalin (NA) in the blood serum of the patients with chronic heart failure (CHF) in dependence on use of β-blockers, angiotensin II receptor antagonists (ARA) or angiotensin-converting enzyme inhibitors (iACE).

METHODS There were studied 46 patients with CHF with FC II (24 patients) and FC III (22 patients). The patients received bisoprolol (5-10 mg) and lisinopril (10-20 mg) or lozartan (50-100 mg) additionally to the standard therapy during 6 months.

RESULTS In the patients with CHF FC II there was increase in contents of BNP, NA and AL by 187%, 30% and 36% ($p<0,001$), in patients FC III by 330%, 56% and 66,3% ($p<0,001$), respectively, in comparison with control group.

There was no reliable change in increase in activity of two and more neurohormones (BNP, AL, and NA) in the patients with increased contents of NA or two and more studied neurohormones of the ejection fraction from left ventricle (LV EF) to the 6 month. In the patients with unreliable increase in neurohormones or increase only one of above mentioned neurohormones there was noted reliable ($p<0,05$) increase in LV EF 6 months after treatment.

CONCLUSIONS Combined therapy with β-blockers and iACE or ARA allowed achievement absence of increase in activity of studied neurohormones and reliable lower content of NA 6 months after treatment. There were no reliable differences in groups of patients receiving losartan or lizinopril on the dynamics of the neurohormones levels.

CONGENITAL HEART DISEASE AND INTERVENTIONS

GW27-e0118

The prevalence of coronary anomalies in a single center of Korea: origination, course, and termination anomalies of aberrant coronary arteries detected by ECG-gated cardiac MDCT

June Namgung, Hae Won Jung, Jae-Jin Kwak, Sung Uk Kwon, Joon Hyung Doh, Sung Yun Lee, Won Ro Lee
Inje University Ilsan Paik Hospital

OBJECTIVES Coronary anomalies are rare congenital abnormalities often found incidentally on conventional coronary angiography (CCA) or coronary CT angiography (CTA). They may result in various clinical outcomes. CCA is invasive and not able to demonstrate all coronary anomalies in detail, especially those with complex courses.