similar 1-year CV mortality (2.9% vs 4.7%, p=.19) and 1-year all-cause (27% vs 24%, p=.39) and CV hospitalization rates (20% vs 18%, p=.48). Conversely by AIFA-MR criteria ARNI-eligible patients had significantly higher 1-year CV mortality (6.3% vs 3.2%, p=.03) and 1-year all-cause (32% vs 22%, p=.001) and CV admission rates (28% vs 16%, p<.0001) than ineligible subjects.

Conclusions: Up to one third of CHF outpatients enrolled in a large cardiology registry were eligible for ARNI. Enlarging eligibility criteria to allow treatment of CHF patients with worse renal function and setting LVEF threshold to <35%, selects a subgroup with higher 1-year CV mortality and hospitalization rates. Provided that tolerability is confirmed, AIFA-MR criteria may identify patients with higher event rates at one year, who could particularly benefit from ARNI and may enhance treatment cost-effectiveness.

P5679
Adherence to lifestyle therapy in patient with chronic heart failure and comorbidity

E.V. Efremova, A.M. Shutov, E.R. Makeeva, V.A. Serov. *Ulyanovsk State University, Ulyanovsk, Russian Federation*

Introduction: Low adherence to treatment is a widely extended problem among patients with chronic heart failure (CHF). Besides medical treatment, lifestyle modifications improves quality of life and prognosis of patients with cardiovascular diseases. However, influence of comorbidity on adherence to lifestyle therapy in patients with CHF have not been studied yet.
The aim of this study was to investigate awareness and adherence to lifestyle therapy in patient with CHF and comorbidity.

Methods: 203 patients with CHF (130 males and 73 females, mean age was 62±10 years) were studied. CHF was defined according to ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure, 2016. The main causes of CHF were coronary heart disease and arterial hypertension. Charlson comorbidity index was calculated. Awareness of lifestyle modifications was determined using a questionnaire developed in our clinic and used in previous scientific studies. Adherence to lifestyle therapy was considered satisfactory when patients performed at least 80% of the recommendations. Quality of life was estimated using SF-36 Health Status Survey. Patients were followed up for 1 year.

Results: The awareness about lifestyle modifications in patients with CHF ranged from 38.9% (daily control of body weight) to 87.2% (reduced intake of dietary sodium). 33 (16.3%) patients had self-control diaries. Only half of the patients, who known about lifestyle modifications, performed medical recommendations. Adherence to lifestyle therapy was from 7.9% (daily weight control) to 37.9% (reduced intake of dietary sodium). The main types of physical activity in patients with CHF were walking - 49 (22.7%) and morning exercises - 31 (15.3%). Patients with CHF, engaging in physical activity, had higher rates quality of life according to the scales of the physical component of health: physical functioning (r=0.30, p=0.003) and physical-role functioning (r=0.31; p=0.001); and on the scale of the psychological component of health: emotional-role function (r=0.30, p=0.002). Only 37 (18.2%) patients were full adherence to lifestyle therapy. Age adjusted Charlson comorbidity index was 5.0±2.1 scores. There were not differences in adherence to lifestyle therapy in patients with CHF, depending on the level of comorbidity.

Conclusions: Only every fifth patient with CHF was adherence to lifestyle therapy despite of the level of awareness about lifestyle modifications and comorbidity.

P5680
Effect of flexible diuretics regimen on sudden weight changes

A. Blomqvist, F. Westman. *CareLigo, Research, Stockholm, Sweden*

Background: There is a homebased tool for patients with heart failure (HF), which monitors symptoms, titrates diuretics and educates the patient about living with HF. Weight is monitored daily, and controls a flexible diuretics regimen. If the weight is increased by >2 kg in 3 days or less, the dose is increased to a patient specific higher level, which is maintained for two days. If the weight then returns to baseline, the dose returns to the lower level, otherwise the patient is alerted and encouraged to contact his/her health care provider (HCP).

Purpose: Investigate how often the increased diuretics dose could reverse the weight increase.

Methods: The system automatically registers when the threshold for a weight increase event is exceeded, and also whether the subsequent dose increase returned the weight to the level before the onset of the rapid weight gain, with a tolerance of ±0.6 kg.

Results: Data stored in 92 systems was analyzed and the systems had been actively used by patients for 6 months in different parts of Sweden. 33% of the patients were female and the mean age was 75. There was a total of 137 dose increases, spread out over 49 patients (53% of the patients) and on average there were 1.5 alerts per patient.
45% of the increased dose of diuretics managed to return the weight to within ±0.6 kg of the weight prior to the sudden weight increase, and the remaining 55% resulted in an alert.

Conclusions: In 45% of the cases where a potentially deleterious rapid weight gain occurred, the flexible diuretics regimen implemented in the tool successfully returned the weight back to the baseline level. This suggests that adherence to a flexible diuretics regimen should be encouraged, as it may ease suffering and save health care resources.

P5681
Effects of exercise training on cardiovascular autonomic modulation and skeletal muscle tissue in chagasic cardiopathy patients and preserved systolic function

A.S.O. Sarmento, L.M. Antunes-Correa, M.J.N.N. Alves, A.V.N. Bacurau, K.C.B. Fonseca, F.G. Pessoa, I.C. Trombetta, M.U.P.B. Rondon, F.J.A. Ramires, M.S. Brasileiro-Santos, P.C. Brum, C. Mady, C.E. Negrao, S. Thomas, B.M. Ianni. *University of Sao Paulo, Researcher at the Institute of the Heart, Sao Paulo, Brazil*. On behalf of Cardiomyopathies and rehabilitation

Background: The benefits of aerobic exercise training (ET) in cardiovascular autonomic control and skeletal muscle of heart failure patients are well established. The study hypothesis was that ET improves cardiovascular autonomic function and structure, and muscle metabolism in chronic chagasic cardiopathy (CCC) patients even though they have preserved systolic function, considering that some of these patients develop the dilated form with ventricular dysfunction and its serious consequences.

Purpose: To evaluate the effects of ET on cardiovascular autonomic control and skeletal muscle tissue in CCC patients and preserved systolic function.

Methods: Patients with two positive serological reactions for Chagas disease, electrocardiographic alterations, left ventricular ejection fraction ≥55% and age between 30 and 60 years were included. Eight patients completed the ET protocol (ET, n=08) and ten patients completed clinical follow-up (NoET, n=10). Muscular sympathetic nerve activity (MSNA) was measured using microneurography technique and muscle blood flow (MBF) by the venous occlusion plethysmography technique. Cardiac baroreflex sensitivity was evaluated by infusion of vasoactive drugs. Functional capacity was determined by cardiopulmonary exercise test. Vastus lateralis muscle biopsy was performed for histological analysis of muscle fibers and for Atrogin-1 and MuRF-1 gene expression evaluation. The ET program consisted of three 60-minute exercise sessions per week for four months.

Results: Regarding ET markers, there was a reduction in resting heart rate (66.1±2.6 vs 59.4±3.3 beats/min; p=0.003) and an increase in peak oxygen consumption (24.4±2.4 vs 28.1±1.7 ml/kg/min; p=0.03). ET reduced the sympathetic hyperactivity, contributing to an increase in MBF. ET reduced MSNA (31.9±3.8 vs 22.8±2.6 burst/min; p=0.008), as well as cardiac (68±4 vs 60±4 nu; p=0.004) and vasomotor sympathetic activity (46±5 vs 37±3 nu; p=0.04), and improved cardiac baroreflex sensitivity (-0.23±0.1 vs -0.46±0.1; p=0.04 for increases in BP and -0.48±0.1 vs -1.00±0.3; p=0.04 for decreases in BP). A reduction of MSNA was associated to a reduction in cardiac (r=0.67; p=0.013) and vasomotor (r=0.81; p=0.003) hyperactivity, improved cardiac baroreflex sensitivity for increases (r=-0.72; p=0.20) and decreases in BP (r=-0.82; p=0.001), and reduced Atrogin-1 (r=0.86; p=0.02) and MuRF-1 (r=0.64; p=0.06) gene expression. After the four-month period, the ET group presented lower Atrogin-1 gene expression than the NoET group (0.49±0.2 vs 2.27±0.4 u; p=0.001).

Conclusion: ET significantly improved autonomic dysfunction, MBF and functional capacity of CCC patients and preserved systolic function. In addition, reduced ANSM was associated with improved cardiac baroreflex sensitivity, reduced sympathetic cardiovascular tone, and reduced Atrogin-1 and MuRF-1 gene expression, which are involved in muscle atrophy.

P5682
A new prognostic indicator in patients with acute decompensated heart failure including both ambulatory and nutritional statuses

K. Yasumura, H. Abe, Y. Iida, T. Kato, M. Nakamura, C. Toriyama, H. Nishida, A. Idemoto, K. Shinouchi, T. Mishima, M. Awata, M. Date, Y. Ueda, M. Uematsu, Y. Koretsune. *Osaka National Hospital, Cardiovascular Division, Osaka, Japan*

Background: Nutritional status as well as exercise capacity is related to the prognosis especially in elderly patients with heart failure.

Purpose: The purpose of this study was to explore a strong prognostic indicator in elderly patients with acute decompensated heart failure (ADHF) by including both ambulatory and nutritional statuses.

Methods: A total of 203 patients hospitalized with ADHF (mean age, 82±10 years old) were enrolled. We evaluated the prognostic nutrition index (PNI) on hospital admission and discharge. PNI was calculated by 10 × serum albumin (g/dl) + 0.005 × total lymphocyte count (per mm³) and PNI≤38 was considered as malnutrition. Ambulatory status was assessed by a simple walking test during cardiac rehabilitation if a patient could walk 200 meters within Borg scale≤13 without critical changes in vital signs. Clinical endpoints were the mortality and heart failure hospitalization within 2 years of discharge.

Results: Eighteen % of patients showed PNI≤38 on admission and 20% on discharge. PNI≤38 on discharge was more strongly related to the mortality [hazard ratio (HR) 3.84, 95% confidence interval (CI) 1.83–8.03, p<0.0001)] than PNI≤38 on admission was (HR 2.30, 95% CI 1.07–4.93, p=0.005). Forty-five % of patients could not walk 200 meters, which was significantly related to the mortality [HR 4.34, 95% CI 2.47–7.65, p<0.0001]. However, neither malnutrition on discharge nor low ambulatory status was related to heart failure hospitalization (HR 1.10, p=0.70; HR 1.32, p=0.14, respectively). We divided patients into group G (both