

($p=0.006$) and had a higher mid term mortality rate ($p=0.010$). Patients in group 2 had higher numbers of patients taking antiplatelet therapy ($p=0.017$) and ACE-inhibitors ($p=0.012$).

Crural arterial segment: Group 1: 86 limbs, average age 73 (67% male); Group 2 186 limbs, average age 74 (71% male). Patients in group 2 had higher rate of diabetes ($p=0.019$). A higher Bollinger score ($p=0.007$), lack of anti-hypertensives ($p=0.024$) and lack of statin therapy ($p=0.035$) were associated with mortality.

Conclusions: Numerous factors predict atherosclerotic progression yet differences between the arterial segments suggest differing disease processes that warrants further investigation.

EAS16-0304, CVD RISK FACTORS.

COMPLIANCE INITIATIVES IN MANAGEMENT OF PATIENTS WITH CORONARY ARTERY DISEASE AND PARKINSONISM SYNDROME

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Objectives: The objective of the study was to evaluate the impact of compliance initiatives on treatment efficacy and clinical outcomes in patients with coronary artery disease (CAD) and Parkinsonism syndrome (PS).

Methods: In the year 2014, we included 52 symptomatic consecutive patients (mean age 58.3 ± 5.7 years) with PS and CAD detected by coronary computed tomographic angiography (CCTA). Physical examination, compliance initiatives, laboratory and instrumental tests were performed at baseline and every month during 12 month period after 1st admission.

Results: 22 (42.3%) patients were strictly compliant with prescribed diet, life style changes, pharmacologic therapy of PS (levodopa + dopamine agonists), CAD (double antiplatelet therapy, atorvastatin 80 mg to all patients; b-blockers/ACE inhibitors/calcium antagonists in individual dosage). 30/52 patients (56.7%) were non-compliant and had no improvement in treatment of CAD and PS. Baseline characteristics of patients are in Table 1. Figure 1 indicates CCTA data. 12 month treatment in compliant group resulted in a daily off time reduction (-43.7% ; from 2.71 ± 0.71 to 1.52 ± 0.44 h/day; $95\text{CI}; 0.83-1.55$, $p=0.0001$). There were no change in the AIMS score (from 8.7 ± 2.3 to 9.1 ± 3.9); the UPDRS score was 38.42 ± 9.27 at baseline and 31.94 ± 9.11 ($p=0.0243$) in 12 month. Clinical outcomes are shown in Table 2. 4/30 non-fatal and 1-fatal MI occurred in non-compliant group with obstructive CAD. Figure 1 showed severity of CAD. Non-compliant patients had more severe general condition, more hospitalizations, costs of treatment, and complex medication regime.

Table 1

Baseline characteristics in patients with CAD and Parkinsonism syndrome patients (compliant vs. non-compliant group).

Parameters	Compliant group, n=22	Non-compliant group, n=30	P value
Chest pain, typical	16 (72.7%)	21 (70%)	1.0
Chest pain, atypical	4 (18.2%)	3 (10%)	1.0
Chest pain, nonanginal	2 (9.1%)	6 (20%)	1.0
Orthostatic hypotension	4 (18%)	6 (20%)	1.0
Arterial hypertension	6 (27.3%)	9 (36.6%)	1.0
Hyperlipidemia	11 (50%)	27 (90%)	0.034
Smoking	6 (27.3%)	8 (26.7%)	1.0
Type 2 diabetes	1 (4.5%)	9 (36.6%)	0.0316
Atrial fibrillation	2 (9.1%)	4 (13.3%)	1.0
Ventricular arrhythmia	1 (4.5%)	9 (36.6%)	0.0316
Congestive heart failure	7 (31.8%)	16 (53.3%)	0.162

Table 2

Clinical outcomes during 12 months postoperative period

Clinical outcomes	Compliant n=22	Non-compliant n=30
1 year mortality rate	-	3 (10%)
Myocardial infarction	-	5 (16.7%)
Fatal myocardial infarction	-	1 (33%)
Acute cardiovascular insufficiency	-	4 (133%)
Ischemic stroke	-	1 (33%)
Pulmonary embolism	-	3 (10%)
Gastrointestinal bleeding	1 (13%)	-

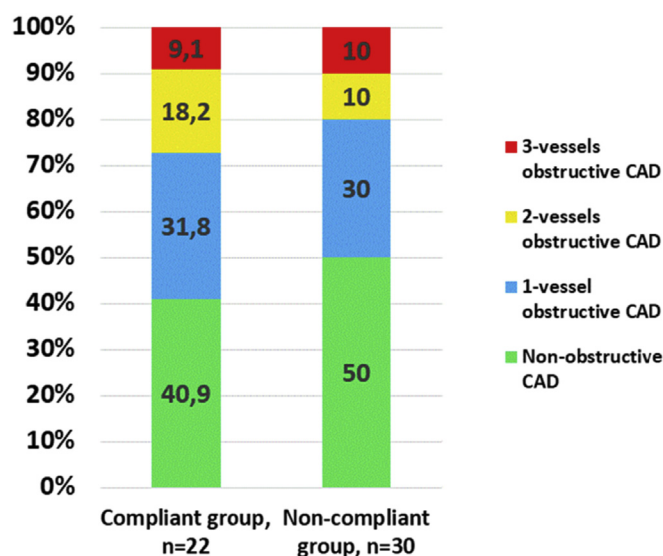


Figure 1. Severity of coronary artery disease (CAD) in patients with Parkinsonism syndrome.

Conclusions: Compliance initiatives are vitally significant to decrease risk of MI, cardiac death. Compliant group showed a decline of motor symptoms and preserve quality of life.

EAS16-0343, CVD RISK FACTORS.

HEART RATE TURBULENCE AS A MORTALITY PREDICTOR IN 5 YEARS STUDY IN PATIENTS WITH CORONARY HEART DISEASE

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Objectives: Pathological heart rate turbulence (HRT) after ventricular premature beats 20-2000/24 h in patients with coronary heart disease (CHD) and myocardial infarction (MI) may predict higher mortality rate.

Aim: To estimate the predictive power HRT in 5 year observational study in patients with CHD.

Methods: 173 patients with CHD and in whom HRT was possible to record, were analyzed from 2010-2011 until 2015 with survival rate and turbulence slope (TS) and turbulence onset (TO) estimation.

Results: Pathological TO showed no correlation with survival rate ($p > 0.05$) but pathological TS in 5 years period ($p = 0.00026$) correlated with survival rate with postMI patients. Moreover, it had a predictive power also with non-MI patients ($p = 0.0032$). The survival (Kaplan-Mayer) curves between normal and pathological TS started to divide from the 36 months of observation (Fig. 1). Presence of nTS in post MI patients increased mortality rate in 5.14 times ($p = 0.00002$) and in non-MI – in 4.99 times ($p = 0.00002$). **Conclusions:** The pathological heart rate turbulence slope parameter showed to be highly effective in mortality risk prediction in patients with coronary heart disease.

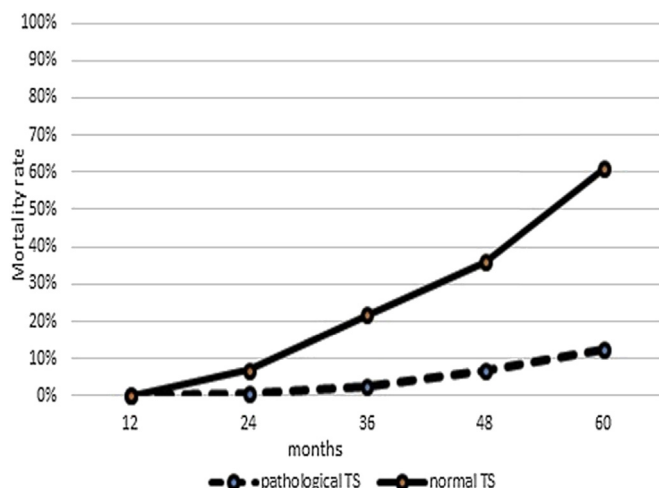


Fig. 15. year Kaplan-Meier mortality curves in patients with coronary heart disease with normal and pathological TS parameter of heart rate turbulence.

EAS16-0353, CVD RISK FACTORS.

EFFECTS OF ASTHMA SEVERITY ON CHANGE OF PRESSURE OF PULMONARY ARTERY IN PATIENTS WITH ARTERIAL HYPERTENSION

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Objectives: To reveal the characteristics of pressure of pulmonary artery (PA) at different severity degrees of bronchial asthma (BA) on the background of arterial hypertension (AH).

Methods: 91 patients were involved in a study with varying BA severity in the step of controllability associated with AH 1, 2 severity. Of these, 26 patients (29%) with mild BA (BAAAH), 34 (37%) with an average severity of BA (BAAAH), 31 (34%) - severity of severe BA (BAAAH). A group of patients with AH 1.2 degrees, $n = 30$, and a group with different degrees of BA in the stage of control $n = 32$, were taken for comparative analysis. In groups of comparison there were no statistically significant distinctions of an average the blood pressure (BP), groups were comparable on age, sex and an experience of AH ($p > 0.05$). All patients were performed the echocardiography on Acuson 128XP/10c (USA).

Results: Systolic pressure of PA (SPPA) was more in groups with AH in group BA-22,09±0,39 mmHg, AH-26,21±0,43 mmHg, BAAAH-26,12±0,43 mmHg, BAAAH-27,28±0,57 mmHg, $p = 0.003$, BASAH-28,54±0,32 mmHg, $p = 0.0001$. The general pulmonary resistance (GPR) was in groups: BA-177,44±7,56 dyn/cm²/s⁻⁵, AH-203,54±11,64 dyn/cm²/s⁻⁵, BAAAH-201,4±8,25 dyn/cm²/s⁻⁵, BAAAH-225,16±13,24 dyn/cm²/s⁻⁵, $p = 0.005$, BASAH-234,8±11 dyn/cm²/s⁻⁵, $p = 0.001$.

Conclusions: Groups of patients with AH (BAAAH, BASAH) had SPPA and GPR more than patients with isolated BA. SDLA didn't differ from group with isolated AH and groups with the combined pathology, however, GPR had reliable differences in group with the isolated AH when is comparing with groups BA on the background of AH.

EAS16-0363, CVD RISK FACTORS.

CLINICAL CHARACTERISTICS OF PATIENTS ON HEMODIALYSIS WITH PERIPHERAL ARTERIAL DISEASE

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Objectives: To research actual problems in patients on hemodialysis (HD) with peripheral artery disease (PAD), their clinical characteristics were investigated in a hemodialysis clinic.

Methods: Two hundred and ten HD patients (76 women; mean age 66 ± 11 years; mean HD period 9.2 ± 9.1 years) were examined for PAD using ankle-brachial index (ABI), toe-brachial index (TBI), and lower extremity arterial ultrasound.

Results: The prevalence of PAD was 38.1%. Among PAD patients, 87.5% were newly diagnosed with PAD, 42.5% were diagnosed with TBI < 0.6 despite ABI ≥ 0.9 , and 68.7% had no lower limb symptoms. The most common underlying kidney disease was diabetes mellitus. The prevalence rates of cerebrovascular disease (CVD) of 36.3%, coronary artery disease (CAD) 42.5%, spinal stenosis 33.2%, and vertebral fracture 15.0% in the PAD patients were significantly higher than those in the non-PAD patients. Low HDL-cholesterol was the most important biomarker among independent predictive variables for PAD.

Conclusions: PAD in HD patients has been under-diagnosed and untreated because most patients do not have symptoms due to diabetic neuropathy or have insufficient activity of daily living (ADL) to experience exertional leg symptoms. Screening for PAD using the ABI and TBI increased diagnostic efficiency and may lead to reduced patient morbidity and mortality from CVD, CAD, and impaired ADL through early diagnosis and treatment of generalized atherosclerosis.

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ASSOCIATIONS BETWEEN OSTEOPOROSIS AND SIGNIFICANT CORONARY ARTERY DISEASE IN ASYMPTOMATIC POSTMENOPAUSAL WOMEN

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Objectives: Both coronary artery disease (CAD) and osteoporosis are major causes of mortality and morbidity in postmenopausal women. We aimed to investigate the association between osteoporosis and significant CAD in asymptomatic postmenopausal women at a single center.

Methods: This study included 863 postmenopausal women without histories of cardiovascular diseases who visited the Health Promotion Center from June 1, 2004 to May 31, 2015. All subjects were screened for bone mineral density (BMD) by dual-energy X-ray absorptiometry (DEXA) and degree of coronary artery by coronary multi-detector computed tomography (MDCT).

Results: Low BMD including osteopenia and osteoporosis was found to be significantly associated with old age, low BMI and higher prevalence of diabetes mellitus. And the incidence of the significant CAD such as high coronary artery calcium score (CACS ≥ 100), obstructive coronary artery disease (OCAD) and multi-vessel disease (MVD) was significantly higher in subjects with low BMD. After adjusting for age and cardiovascular risk factors, osteoporosis was associated with high CACS [adjusted odds ratio (aOR) 2.70, 95% confidence interval (CI) 1.05-6.70; $p = 0.015$], OCAD (aOR 2.47, 95% CI: 1.11-5.50; $p = 0.002$), and MVD (aOR 3.01, 95% CI: 0.58-15.56; $p = 0.052$), however osteopenia was not associated with significant CAD.

Conclusions: Osteoporosis was independently associated with significant CAD including high CACS, OCAD and MVD in asymptomatic postmenopausal women, suggesting that proactive investigation of CAD should be considered for asymptomatic postmenopausal women with osteoporosis.