	Baseline		1st Follow-up		4th follow-up	
	Control	Intervention	control	Intervention	control	Intervention
SBP	150±26.3	150±28.0	144±27	139±20*	151±25.8	143±23.1*
DBP	82±13.0	83±12.6	83±17.7	79±10.7*	80±12.6	78±11.3*
S.Cr	69±20.4	69±18.7	74±38.4	77±19.2	68±26.2	71±18.5*
S. K	4.2±0.41	4.3±0.52*	4.1±0.42	4.6±0.62*	4.5±0.5	4.6±0.49*
U. Na/K	7.8±4.4	8.2±4.9	7.4±4.4	5.2±3.3*	4.2±2.8	2.6±1.8*

* P<0.05 between control and intervention group

Conclusions: The results suggest that long term consumption of the enriched K salt can lower blood pressure, and is safe in Chinese living in nursing houses. Follow-up is ongoing for its effects on cardiovascular events.

PP.02.35 EFFECTS OF COMMUNITY PARTICIPATION PROGRAMME FOR BLOOD PRESSURE CONTROL ON HEALTH BEHAVIOURS AND BLOOD PRESSURE IN COMMUNITY DWELLERS WITH HYPERTENSION

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Objective: This study aimed to 1) compare health behaviors and blood pressure in experimental group before and after a program for blood pressure control using community participation, 2) compare health behaviors and blood pressure between a control group and the experimental group after participating in the program for blood pressure control using community participation.

Design and method: Experimental design was used. The sample included 60 persons with hypertension in two communities of a central part of Thailand. The sample were assigned to an experimental group (n=30) and a control group (n=30). The experimental group participated in the program for 14 weeks. Data were collected using a health behavior questionnaire for persons with hypertension. Data were analyzed using descriptive statistics, Chi-square test, Fisher's exact probability test, t-test, Mann Whitney U test, and Wilcoxon signed-rank test.

Results: Results revealed that most of the samples were female, both in the experimental group (63.3%) and the control group (76.7%). There was no significant difference in mean age between the experimental group (58.8 + 8.6 years) and the control group (61.9 + 11.2 years). Overall health behaviors in the experimental group, before and after the program, were not significantly different, and no significant difference was found from the control group. Analysis of the subscales revealed that after the program, the experimental group had significantly higher scores for stress management than before (p = .029) and significantly higher than the control group (p = .044). Systolic blood pressure was significantly lower than before the program (p = .003) and significantly lower than the control group (p = .030). Diastolic blood pressure was significantly lower than before (p < .001), but not significantly different from the control group.

Conclusions: The results suggest that health teams assess and monitor stress, and promote activities with community participation, addressing stress management in persons with hypertension, to control blood pressure effectively.

PP.02.36 THE EFFECTIVENESS OF REHABILITATION PROGRAMME IN PATIENTS WITH ARTERIAL HYPERTENSION, COMPLICATED BY CHRONIC HEART FAILURE

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Objective: To evaluate the effectiveness of rehabilitation program in patients with arterial hypertension, complicated by chronic heart failure (CHF).

Design and method: 72 patients with arterial hypertension, complicated by CHF were studied (55 patients were men and 17 women, mean age 65 ± 12 years). All patients underwent clinical and laboratory examination, pulmonary function tests and echocardiography. These patients have completed six weeks rehabilitation program. Outcome measures were breathlessness (10 point Borg scale) and exercise capacity by six-minute walk test (6MWT). These measures were assessed before and after the rehabilitation program. For all the patients rehabilitation included standard treatment with medications, aerobic exercise training, breathing control techniques, smoking cessation program and education program.

Results: We revealed significant increase in the 6MWT, distance walked passing from 210 ± 35 m to 267 ± 42 m (p < 0.001). Also we found significant decrease in breathlessness, Borg scale score after 6MWT passing from 4,7 ± 1,2 to 3,6 ± 0,9 (p < 0.001).

Conclusions: We conclude that rehabilitation program in patients with arterial hypertension, complicated by CHF improved exercise capacity. All patients with arterial hypertension, complicated by CHF should be included in rehabilitation program.

PP.02.37 LIFESTYLES AND VASCULAR STRUCTURE AND FUNCTION PARAMETERS. MARK STUDY

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Objective: To analyse the relationships between lifestyles and vascular structure and function parameters in patients with intermediate cardiovascular risk.

Design and method: We performed a cross sectional study including 500 subject, aged 30 to 75 years (mean: 60.31 ± 8.44), 54.4% men, without cardiovascular diseases from the MARK study, selected by consecutive sampling from a Spanish health centres. Measurement: Cardio-AnkleVascular Index (CAVI), Ankle-brachial index (ABI) and ba-Pulse Wave velocity (PWV)were measurement by VaSera device (Fukuda Denshi) and by brachial oscillometry (Mobil-O-Graph),Aortic PWV (A-PWV), Augmentation index 75% (AIx75%),Cardiac index(CI)and Reflection coefficient(RC). Lifestyles were measurement by questionnaires of diet (Mediterranean diet and DQI), physical exercise (Minnesota), smoke and alcohol.

Results: The CAVI mean was 8.59 ± 1.03, in men 8.62 ± 1.16 and in women 8.55 ± 1.03 (p > 0.05). The 29.3% were less than 8 (normal), the 36.6% were between 8 y 9 (border line) and the 34.1% were equal or higher than 9 (Atherosclerosis probably). ABI mean was 14.7 ± 2.7, baPWV 14.7 ± 2.7, CI 2.2 ± 0.4, AIx75% 26.7 ± 13.8. A-PWV 8.6 ± 1.1 and RC 66.3 ± 8.9.
They were smoker 21.4%, heavy drinkers 17.8%, sedentary 24.2% and with unhealthy diet 44.4%. DQI Index was 31 ± 3, Mediterranean diet score 6 ± 2, METS standardized 14 days 3541 ± 3358, alcohol in gr/week 74 ± 107, years of smoking 29 ± 12 and smoking index 26 ± 25.
We found positive correlation of years of smoking with the CI (r = 0.145, p = 0.01), A-PWV (r = 0.244, p < 0.01), CAVI (r = 0.170, p < 0.01), and negative with ABI (r = -0.128, p = 0.03). Alcohol consumption was negatively correlated with CI(r = -0.137, p < 0.01), AIx75% (r = -0.100, p = 0.03) and the RC (r = -0.137, p < 0.01). Physical activity correlated only with the ABI (r = 0.123, p = 0.01) and the Mediterranean diet score and DQI with A-PWV (r = 0.119, p = 0.01 y r = 0.096, p = 0.03 respectively).

Conclusions: The years of smoking are associated with unfavorable vascular structure and function, while alcohol consumption is associated favorably. Physical activity is associated only with increased ABI, while better food pattern is associated with higher pulse wave velocity.

PP.02.38 THE EFFECTS OF CHRONIC EXERCISE ON BODY COMPOSITION, HEMODYNAMIC PARAMETERS AND MICROVASCULAR REACTIVITY IN YOUNG HEALTHY MEN

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Objective: The aim of our study was to evaluate: 1) how chronic exercise (CEX) modulate body composition components, 2) how CEX affects microvascular reactivity of skin microcirculation (indicator of endothelial function) and 3) is there an association between body composition components and microvascular reactivity in young healthy men.

Design and method: Young healthy lean sedentary subjects (SS) (N = 8) and trained athletes (TR) (N = 16) participated in this study. Blood pressure, heart rate, body mass index (BMI), waist to hip ratio (WHR), fasting lipid panel, plasma glucose and C reactive protein (CRP) were measured in all subjects. Body composition was measured with a four-terminal portable impedance analyzer (Maltron Bioscan 920-II). Empirically derived formulas were used to calculate estimated Fat Mass, Muscle Mass, Total Body Water (TBW), Intra-Cellular Water (ICW) and Extra-Cellular Water (ECW). Skin microvascular post occlusive reactive hyperemic (PORH) blood flow was assessed by laser Doppler flowmetry (LDF).

Results: All subjects were normotensive, lean, age-matched males, with no difference in BMI, WHR, arterial blood pressure and heart rate, just as in fastig lipid panel, plasma glucose and CRP between SS and TR. Fat Mass% was significantly higher in SS than in TR (Fat Mass% SS 13.8 ± 4.2 vs. TR 8.7 ± 1.2, P = 0.012), while Muscle Mass% was significantly higher in TR than in SS (Muscle Mass% SS 45.8 ± 1.5 vs. TR 48.4 ± 1.4, P = 0.022). TBW% was significantly higher in TR when compared