P98: EFFECT OF LONG-TERM ANDROGENIC TREATMENT ON THE STRUCTURAL AND FUNCTIONAL PROPERTIES OF THE GREAT ARTERIES OF FEMALE TRANSSEXUALS

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young. In the older adults, neither FMD (SALS: 3.5 ± 1.4 to 4.6 ± 1.2%; PLAC: 3.4 ± 1.2 to 2.5 ± 1.3%; ANOVA P = 0.98) nor CFPWV (SALS: 8.1 ± 0.5 to 8.4 ± 0.6 m/sec; PLAC: 7.6 ± 0.5 to 7.6 ± 0.4 m/sec, ANOVA P = 0.41) was altered after 4 weeks of salsalate vs. placebo. These data fail to demonstrate that chronic salsalate timproves age-associated aortic stiffness or endothelial dysfunction in older adults. Future studies should test longer duration therapy or more selective inflammatory inhibitors on vascular aging in humans.

P96
ACUTE EFFECT OF ELECTRONIC CIGARETTE SMOKING ON PULSE PRESSURE AMPLIFICATION IN YOUNG SMOKERS
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Purpose/Background/Objectives: We investigated the acute effect of electronic cigarette (EC) smoking on the aortic pressure waveform amplification. We also sought to compare the effect of EC and combustible cigarette (TC) smoking on central haemodynamics.

Methods: We studied 24 smokers (age: 30 ± 8 years) on 3 separate occasions: a) tobacco cigarette (nicotine content, 1.2 mg) over 5 minutes, b) EC (18 mg E-liquid) for a period of 30 minutes, and c) nothing (sham procedure) for 60 minutes. Smoking EC for 30 min (15 puffs) was chosen to mimic the common pattern of EC smoking.

Results: Both TC and EC smoking caused a significant increase in brachial pressures and heart rate (HR), and the differences in blood pressure (BP) and HR responses between the two smoking forms were not significant. The aortic pressures also increased significantly after smoking both TC and EC, with the greatest changes seen in the first 5 minutes after TC smoking and 15 minutes EC smoking (figures 1A-C, all P < 0.05). Although Alix, decreased in both two smoking forms, by applying a correction factor for changes in HR, the Alix increased significantly after TC (by 3.0% at 5 minutes, P < 0.05) and EC (by 2.9% at 15 minutes, P < 0.05) (figure 1D).

Conclusions: Electronic cigarette smoking exerts an unfavourable and comparable effect on aortic pressure waveform amplification. Given the prognostic role of central haemodynamics on cardiovascular outcomes, EC may still be considered a hazardous smoking method.

P99
THE EFFECT OF L-ARGININE ON THE VASCULAR FUNCTION IN HEALTHY TRAINEED AND SEDENTARY SUBJECTS
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Background: The aim of our study was to determine whether the use of food supplement L-arginine improves vascular function, which could be beneficial in preventing the formation and development of cardiovascular diseases. We investigated differences between trained and sedentary subjects.

Method: Measurements were performed in healthy normotensive men, divided into four groups, according to age and physical activity: 12 young sedentary (YS) (mean age 23.5 ± 2.4) and age matched trained (YT) (N = 18); 11 elder sedentary (ES) (mean age 45.7 ± 7.5) and age matched trained (ET) (N = 12) subjects. Parameters were measured at rest with the Task Force Monitor device (CNSystems Medizintechnik, Austria) before and after administration of 0.9 g L-arginine.

Results: After ingestion of L-arginine the heart rate in all groups statistically significantly decreased (YS 70.4 ± 4.2 to 66.3 ± 3.3; YT 62.1 ± 2.7 vs. 58.3 ± 2.0; ES 69.6 ± 3.2 vs. 62.7 ± 2.7; ET 58.0 ± 1.8 vs. 53.6 ± 1.2 beats/min (paired t-test, p < 0.05). The cardiac output decreased in three groups (YT 7.04 ± 0.4 vs. 6.32 ± 0.3; ES 6.95 ± 0.5 vs. 5.9 ± 0.4; ET 7.08 ± 0.6 vs. 6.58 ± 0.4 L/min (paired t-test, p < 0.05). The systolic (126.3 ± 4.1 vs. 120.0 ± 3.2 mmHg) and diastolic pressure (77.6 ± 2.5 vs. 74.3 ± 1.9 mmHg) (paired t-test, p < 0.05) decreased in the ES group.

Conclusions: The systemic effect of L-arginine was observed. Improved cardiovascular function in response to L-arginine could justify the use of dietary L-arginine supplementation.

P100
TRIAL OF EXERCISE TO PREVENT HYPERTENSION IN YOUNG ADULTS (TEPHRA): RATIONALE AND PROTOCOL
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Background: Hypertension or pre-hypertension in young adults is unusual and more often linked with an adverse family or pregnancy history, such