P99: THE EFFECT OF L-ARGININE ON THE VASCULAR FUNCTION IN HEALTHY TRAINED AND SEDENTARY SUBJECTS

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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.

Conclusion: EC may still be considered a hazardous smoking method.

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

Background: Androgens act directly on the vasculature through their connection to the androgen receptor in the vascular wall, and can promote changes in structural and functional vascular properties.

Objective: To evaluate the structural and functional properties of large arteries in TF in prolonged use of testosterone esters and compare them with those of a control group men and women.

Patients and methods: 42 patients with diagnosis of TF (42 ± 10 years) in treatment with testosterone esters for at least 1 year (1–38 years) and 147 healthy controls matched for age and BMI were submitted to evaluation of carotid parameters by radiofrequency ultrasound (WT500): intima media thickness (IMT), diameter and relative distension. The carotid-femoral pulse wave velocity (PWV(f)) was measured by Complior device.

Results: The TF showed higher (p < 0.01) PWV(f) (7.2 ± 0.8 m/s) than the male controls (6.6 ± 0.9 m/s), but not than female controls (7.1 ± 1 m/s). When categorized by age, considering median values of age, TF ≥ 42 years showed higher PWV(f) than male and female controls, independently of BP values. There is no differences in carotid parameters between TF and control groups, but obese TF presented higher carotid diameter (694 ± 527 vs. 6438 ± 535 μm and IMT (691 ± 72 vs. 601 ± 126 μm), and lower carotid distension (4,8 ± 1.5 vs. 6,5 ± 2,1%) than lean TF. The PWV(f) was significantly correlated to age (r = 0.63), time of androgenic treatment (r = 0.37) and waist-hip ratio (0.39) in TF.

Conclusion: Older TF subjects and TF with prolonged treatment had higher aortic stiffness. Obese TF presented worst carotid structural and functional markers.

Background: L-arginine supplement 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 ± 2 ± 4) and age matched trained (YT) (N = 18); 11 elder sedentary (ES) (mean age 45 ± 7,5) and age matched trained (ET) (N = 12) subjects. Parameters were measured at rest with the Task Force Monitor device (CSystems 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 vs. 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.