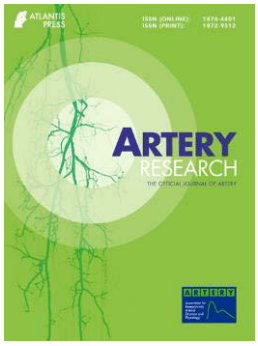

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P192: ENDOTHELIAL DYSFUNCTION, ARTERIAL STIFFNESS IN LUNG TRANSPLANTED INDIVIDUALS

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and UC (β 0.69 z- score [0.8 m/s], 95% confidence interval 0.49—0.88 z-score, $P < 0.001$). In patients with IBD, the aPWV was dependent on disease duration (square root [years], β 0.15 z- score, 95% confidence interval 0.02—0.29 z-score, $P = 0.03$) and white blood cell count (Log_e [billion cells/L], β 0.48 z-score, 95% confidence interval 0.12—0.84 z-score, $P = 0.01$) but not on cardiovascular risk factors and therapy.
Conclusions: The increased aPWV reported in this patient population is dependent on inflammation.

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ENDOTHELIAL DYSFUNCTION, ARTERIAL STIFFNESS IN LUNG TRANSPLANTED INDIVIDUALS

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Background: The immunosuppressive treatment after organ transplantation highly contribute to evolve cardiovascular comorbidities like hypertension, hyperlipidemia, diabetes and kidney diseases. The effect of hypertriglyceridemia could cause accelerated atherosclerosis. Previous smoking and excessive inflammatory response could increase the cardiovascular risk on those patients who were transplanted because of end-staged chronic obstructive pulmonary disease. Long term follow up needed on lung transplanted (LuTx) patient with cardiovascular risk assessment and to screen patients with vulnerable cardiovascular diseases. However, the correlation between LuTx patients and arterial stiffness is not investigated in the literature.
Method: We investigated the arterial stiffness parameters in 51 LuTx and 49 healthy individuals. The arterial stiffness parameters were measured with oscillometric method (Tensiomed Arteriograph). Aortic pulse wave velocity (aoPWV), augmentation index (Aix), central systolic blood pressure (cSBP) and aortic pulse wave reflection time (RT) were determined.
Results: We found increased aoPWV and Aix values in lung transplanted (LuTx) patients than in the healthy individuals. Significant higher aoPWV (8.45 vs 7.49 m/s; p = 0.045), and RT (120 vs 134 ms; p = 0,0004) were found. Patients who were transplanted because of COPD and lung fibrosis the aoPWV were significantly higher versus the patient who were transplanted because of cystic fibrosis or pulmonary hypertension.
Conclusion: We strongly recommend the long term cardiovascular follow up on lung transplanted patient, because of the common systemic atherogen effect of the frequent infection and immunsupressive therapy.

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CAROTID ATHEROSCLEROSIS, AORTIC STIFFNESS AND PENILE VASCULAR DAMAGE IN PATIENTS WITH ERECTILE DYSFUNCTION: RELATION TO LOW DENSITY LIPOPROTEIN LEVELS AND STATIN THERAPY

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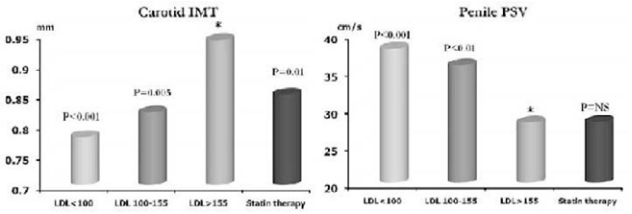
Purpose/Background/Objectives: Aim of the study is to examine the possible differentiation of aortic stiffness, carotid atherosclerosis and penile vascular function among patients with erectile dysfunction (ED) according to cholesterol level and statin therapy.
Methods: We measured carotid intima-media thickness (IMT), carotid-femoral pulse wave velocity (PWV) and penile peak systolic velocity (PSV) 20 min after intracavernous injection of prostaglandin E1 in 356 consecutive ED patients (mean age 57 ± 9 years). Lipid parameters and total testosterone were measured in all patients.
Results: 95 (26.7%) ED patients are treated with statins. The patients not receiving statin therapy (n = 261) were subsequently divided into three groups according to LDL level (group 1: LDL < 100 mg/dl, group 2: LDL: 100—155 mg/dl, group 3: LDL > 155 mg/dl).
Patients with statin therapy and subjects in group 2 have similar mean LDL level. Carotid IMT was higher in patients with LDL >155 mg/dl (group 3) compared to patients treated with statins (P = 0.01) and subjects with LDL: 100—155 mg/dl (P = 0.005) and LDL < 100 mg/dl (left plot, P < 0.001). Post hoc analysis showed that patients treated with a statin and subjects in group 3 had comparable penile PSV and lower mean value compared to that of patients in group 1 and group 2 (right plot).
Carotid-femoral PWV was similar between the studied groups. Testosterone levels were similar between patients treated with a statin and males not receiving hypolipidemic therapy (groups 2 and 3).



Conclusions: Although treated hypercholesterolemic patients exhibited lower atherosclerotic burden compared to untreated individuals with high LDL levels, penile blood inflow remains significantly impaired.

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CARDIOVASCULAR RESPONSES TO INCREASED PRESSURE DURING HEALTHY PREGNANCY

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A long-standing question is whether pregnant females, who bear an increased biological stress, experience exacerbated cardiovascular responses during physiological challenge. At rest, pregnant females have reduced blood pressure, increased cardiac output, heart rate and stroke volume (1), with reported reductions in cardiac contraction and relaxation (2). Increased cardiac work may potentially exasperate impairments in function observed at rest. The aim of this study was to investigate the cardiovascular responses to an isolated increase in pressure in healthy nulliparous non-pregnant, primiparous pregnant (22—26 weeks gestation; $n = 14$) and primiparous postpartum (12—16 weeks after delivery; $n = 13$) females.
The pressure challenge was elicited through a sustained isometric hold for approximately 5 minutes at 30% of maximum using an externally loaded handgrip dynamometer. Echocardiographic images were collected to measure cardiac volumes and mechanics. Blood pressure was monitored continuously using finger photoplethysmography. Analyses of covariance, with baseline measures as covariate, were completed to determine differences between groups ($P = <0.05$). *Post hoc* analyses were performed with a Bonferroni adjustment.
There were no significant differences between groups in cardiac volumes or blood pressure during the challenge however; pregnant females had a greater heart rate (68 ± 2 *versus* 62 ± 2 beats·min^{-1}) and longitudinal strain ($-20.6 \pm 1.0\%$ *versus* $-17.1 \pm 0.7\%$) than non-pregnant females.
Increased longitudinal strain and heart rate are likely result of increased contractility mediated by greater myocardial sympathetic innervation (3). In healthy pregnant females, increased pressure does not result in impaired