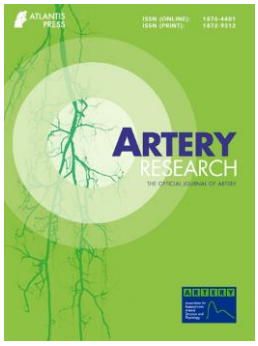

Artery Research

ISSN (Online): 1876-4401 **ISSN (Print): 1872-9312**
Journal Home Page: https://www.atlantis-press.com/journals/artres

P11.18: DETERMINANTS OF SUBCLINICAL ORGAN DAMAGE IN PAEDIATRIC KIDNEY TRANSPLANT RECIPIENTS

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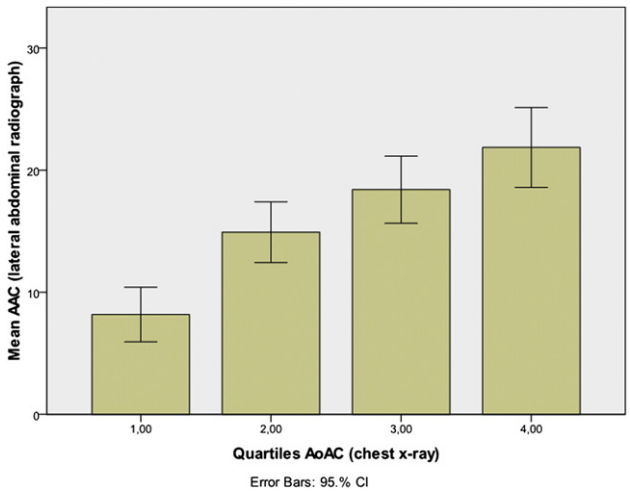
To cite this article: É. Kis, O. Cseprekál, A. Kerti, T. Horváth, A.J. Szabó, M. Kollai, G.S. Reusz (2011) P11.18: DETERMINANTS OF SUBCLINICAL ORGAN DAMAGE IN PAEDIATRIC KIDNEY TRANSPLANT RECIPIENTS, Artery Research 5:4, 197–197, DOI: https://doi.org/10.1016/j.artres.2011.10.174

To link to this article: https://doi.org/10.1016/j.artres.2011.10.174

Published online: 14 December 2019

on chest x-ray was correlated with the above mentioned established markers of vascular calcification.
Methods: AAC, AoAC and PWV were measured in 88 patients on RRT who were Danish participants in a European multicenter cross-sectional study. Inclusion criteria were: >18 years of age and >3 months of maintenance haemo- or peritoneal dialysis treatment. AoAC was measured using a semi-quantitative method. The cross section of the aortic arch was divided into 16 sectors on a plain frontal chest x-ray. Sectors showing signs of calcified plaques in the form of typically shaped densities were identified. The carotid-femoral PWV was measured using applanation tonometry.
Results: 72% had a AoAC score > 0 compared to 81 % with a AAC score > 0. AoAC was significantly positively correlated with AAC ($r=0.69$, $p<0.001$) and PWV ($r=0.35$, $p<0.001$). The positive- and negative predictive values of AoAC with respect to AAC were 98% and 32%, respectively.
Conclusion: The presence of calcification on chest x-ray was positively correlated with AAC and PWV. Chest x-ray is inexpensive and frequently obtained in this patient population. We believe it may provide valuable data on calcification and may be used in risk stratification of dialysis patients. Further evaluation is required.



P11.18
DETERMINANTS OF SUBCLINICAL ORGAN DAMAGE IN PAEDIATRIC KIDNEY TRANSPLANT RECIPIENTS

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Increased cardiovascular (CV) risk caused by uraemic milieu decreases after kidney transplantation (Tx), however it remains 5 fold higher than in the general population. CV mortality can be characterized by non-invasive measure of arterial stiffness (Ast). (Pulse Wave Velocity (PWV), distensibility (D), and Intima media thickness (IMT)) Clinical studies on arterial wall damage in kidney transplant children are sparse.
Our aim was to evaluate the Ast parameters and the possible pathophysiological factors responsible for impaired arterial function among kidney Tx patients. PWV, D and IMT of 24 Tx children (age: 16.6±4.9 years) were measured by applanation tonometry, and carotid artery ultrasound. Laboratory values of lipid, calcium phosphate metabolism, and renal function were also assessed at the time of measurements and retrospectively one year after Tx.
PWV SDS of Tx showed a tendency of discrete elevation (0.97±0.71), IMT was above the 95th percentile (1.64±1,36). D SDS was in the normal range (-0.01±0.98). Compared to the controls PWV SDS showed positive correlation with creatinine, P, CaxP ($r=0.51$;$r=0.4$;$r=0.46$; $p<0$-05). P, CaxP values were significantly higher in Tx with IMT >95th percentile (0.13 vs. 2.61) one year after tx. (P 1.24 vs. 1.63 mmol/l; CaxP:3.19 vs 4.18 $mmol^2/l^2$).
To conclude, 4.5 years after Tx, both morphological and functional changes can occur. Disturbances of calcium phosphate metabolism can enhance the progression of athero- and arteriosclerosis, thus the impairment of arterial elastic function in children after transplantation.
Supported by: OTKA 71730, ETT 06-123/2009, TÁMOP-4.2.2-08/1/KMR-2008-0004

P11.19
DIFFERENT BEHAVIOUR OF ARTERIAL STIFFNESS ACCORDING SEX AND AGE IN A POPULATION OF PATIENTS IN PRIMARY PREVENTION

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Background: There is conflicting evidence about the arterial stiffening process with age. Although differences according sex have been described in the CV system (heart, emodynamics, IMT etc) little was described about arterial stiffening according sex and age simultaneously.
Objective: To analyze arterial stiffness parameters as Pulse Wave Velocity (PWV), pulse pressure (PP) and augmentation index (Aix) in central and peripheral arteries according sex and age in large series of p. in primary CV prevention.
Methods: We evaluated 3523 p. without CV history, who underwent a complete vascular non invasive assessment including PWV, PP and Aix (using Complior and Arteriograph devices).The data were compared according age (deciles) and sex.
Results: BP was higher in males than in women from 20 y.o until 50's.
PWV was significantly higher in males than in females at every age.
PP in central aorta and peripheral vessels was higher in males until 50's and then raised in women.PP Ao began to be higher at this age in females than peripheral PP. (see table)
Aix were higher in women, and the negative value of peripheral augmentation shifted to positive in women at 40's.In men the rise of central pressures and the positive turn of the peripheral augmention index occured late in 60's.
Conclusion: Several explanations to these phenomena can be considered, but: a)Increased PWV and PP in men b) a higher central aortic PP in women and c) early peripheral arterial stiffening in females should be taken into account when tailoring antihypertensive treatment according sex and age.
Comparison of main data according sex

PARAMETERS	TOTAL POP (4523)	MALES (2991)	FEMALES (1523)	P value (M vs F)
AGE	50 +/- 12	49 +/- 12	52 +/-12	<.001
SBP	134 +/- 18	135 +/- 17	132 +/- 20	<.001
DBP	83 +/- 14	84 +/- 11	82 +/- 19	<.001
PWV	10,7 +/- 2	10,9 +/- 3	10,2 +/- 2	<.001
PP Ao	48 +/- 17	46 +/- 17	53 +/- 17	<.001
PP B	51 +/- 16	60 +/- 12	51 +/- 21	<.001
Aix Ao	28 +/- 14	24 +/- 14	36 +/- 12	<.001
Aix B	-10 +/- 34	-19 +/- 32	10 +/- 31	<.001

P11.20
COMMON CAROTID ARTERY PARAMETERS AND CARDIOVASCULAR RISK FACTORS IN HYPERTENSIVE ADOLESCENTS

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Objective: According data of clinical studies the relationship between cardiovascular risk factors and measured common carotid artery (CCA) intima-media thickness (IMT) is a marker of preclinical atherosclerosis in adolescence. The aim of our prospective cross-sectional study was to