

Supplementary Material

Macrophage Cholesterol Efflux Downregulation is Not Associated with Abdominal Aortic Aneurysm (AAA) Progression

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Supplementary Materials Table S1. Clinical and biochemical parameters of small/medium size AAA patients.

	Low progression (n = 26)	Medium progression (n = 29)	High progression (n = 26)	ANOVA or chi-square p value
Age (years)	69.88 ± 3.14	69.46 ± 2.69	69.60 ± 2.68	ns
BMI (%)	28.45 ± 3.21	27.43 ± 2.90	26.31 ± 4.09	ns
Total Cholesterol (mmol/L)	4.78 ± 0.96	4.85 ± 0.81	5.01 ± 0.89	ns
ApoA-I (g/L)	1.54 ± 0.37	1.66 ± 0.35	1.55 ± 0.19	ns
TG (mmol/L)	1.45 ± 0.52	1.40 ± 0.76	1.46 ± 0.69	ns
HDLc (mmol/L)	1.04 ± 0.39	1.17 ± 0.44	1.08 ± 0.35	ns
LDLc (mmol/L)	3.08 ± 0.92	3.10 ± 0.89	3.23 ± 0.93	ns
VLDLc (mmol/L)	0.66 ± 0.24	0.58 ± 0.27	0.70 ± 0.30	ns
Aortic diameter (mm)	36.00 ± 4.17	35.67 ± 4.90	37.50 ± 4.41	ns
Diastolic Blood Pressure (mm Hg)	85.76 ± 12.25	89.70 ± 12.60	88.43 ± 12.16	ns
Lowest ABI	0.96 ± 0.19	0.94 ± 0.18	0.95 ± 0.19	ns
Smoke	9 (35 %)	10 (36 %)	13 (52 %)	ns
Diabetes	5 (19 %)	4 (14 %)	1 (4 %)	ns

Arterial Hypertension	15 (58 %)	17 (61 %)	9 (36 %)	ns
Previous CVD	4 (15 %)	5 (18 %)	2 (8 %)	ns
Statins use	16 (62 %)	18 (64 %)	7 (28 %)	< 0.05
Low Dose Aspirin	16 (62 %)	14 (50 %)	2 (20 %)	< 0.01

Results expressed as mean $\pm$ standard deviation (SD), ns = non-significant

Supplementary Materials Table S2. One-way ANCOVA of MCE in all subjects adjusted for age, BMI and DBP

Tests of Between-Subjects Effect						
Dependent Variable: Efflux						
Source	Type III Sum of Squares	df	Mean Square	F	p value	
Corrected Model	395.662 ^a	5	79.132	7.143	0.000	
Intercept	51.861	1	51.861	4.681	0.032	
Age	5.697	1	5.697	0.514	0.475	
BMI	190.872	1	190.872	17.230	0.000	
DBP	0.027	1	0.027	0.002	0.961	
Group	102.848	2	51.424	4.642	0.011	
Error	1528.785	138	11.078			
Total	20793.361	144				
Corrected Total	1924.447	143				

a. R Squared = 0.206 (Adjusted R Squared 0.177)

Supplementary Materials Table S3. Univariate correlations in all subjects between HDL-mediated macrophage cholesterol efflux (MCE) capacity and aortic diameter, apoA-I, HDLc and BMI.

	Aortic diameter	ApoA-I	HDLc	BMI
Efflux in all subjects	-0.2 (-0.35 – (-0.043))	0.43 (0.29 – 0.55)	0.39 (0.25 – 0.52)	-0.36 (-0.50 – (-0.22))
p value	<0.05	<0.001	<0.001	<0.001
Efflux in AAA patients	-0.062 (-0.24 – 0.12)	0.41 (0.24 – 0.55)	0.37 (0.20 – 0.52)	-0.34 (-0.50 – (-0.17))
p value	ns	<0.001	<0.001	<0.001

Results expressed as r Pearson coefficient (95 % CI), ns = non-significant

Supplementary Materials Table S4 Multivariate lineal regression of Growth Rate with MCE capacity in small/medium size AAA group adjusted for age, BMI, smoke, statins and DBP

Coefficients ^a				
Model	Standardized coefficients		t	p value
	Beta			
Age	-0.118		-1.047	0.299
BMI	-0.197		-1.548	0.126
Smoke	0.172		1.481	0.143
Statins	-0.236		-2.043	0.045
DBP	0.088		0.764	0.448
MEC capacity	0.004		0.027	0.979
Aortic Diameter	0.122		1.029	0.307
a. Dependent variable: Growth rate				

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Supplementary Materials Table S5 Multivariate Cox regression analysis of 5-year predictors of need to surgery in all AAA patients. MCE tertiles were analyzed as a categorical variable using the upper tertile as reference.

All AAA	p value	HR	95% CI for HR	
			Lower	Upper
Upper tertile (ref)	0.043			
Lowest tertile	0.014	3.305	1.268	8.617
Mid tertile	0.029	2.882	1.113	7.467
Current smoking	0.046	0.462	0.217	0.985
CVD	0.137	1.944	0.810	4.668
Use of aspirin	0.270	0.649	0.300	1.400
Use of statin	0.242	0.636	0.298	1.357
Use of ACE inhibitor	0.174	1.701	0.791	3.658
Diastolic BP	0.075	1.026	0.997	1.056
BMI	0.086	0.897	0.792	1.015
Lowest ABI	0.978	0.968	0.098	9.598
Max AAA diameter	0.000	1.106	1.080	1.132

Supplementary Materials Table S6 Multivariate Cox regression analysis of 5-years predictors of need to surgery in small/medium AAA patients. MCE tertiles were analyzed as a categorical variable using the upper tertile as reference.

Small/medium AAA	p value	HR	95% CI for HR	
			Lower	Upper
Upper tertile (ref)	0.622			
Lowest tertile	0.478	1.842	0.341	9.945
Mid tertile	0.330	2.131	0.465	9.775
Current smoking	0.601	0.700	0.184	2.665
CVD	.644	1.545	0.244	9.779
Use of aspirin	0.022	0.152	0.030	0.764
Use of statin	0.141	0.343	0.083	1.425
Use of ACE inhibitor	0.288	2.129	0.529	8.569
Diastolic BP	0.613	1.011	0.969	1.055
BMI	0.801	0.977	0.815	1.171
Lowest ABI	0.793	0.669	0.033	13.562
Max AAA diameter	0.000	1.267	1.129	1.422