Supplementary material

Thickness and an Altered miRNA Expression in the Epicardial Adipose Tissue Is Associated With Coronary Heart Disease in Sudden Death Victims

Table 1 of the supplementary material

miRNA Expression Profiles by Affymetrix miRNA 3.0 Array.

miRNA	*P*-value	Fold-change
miR-628-5p	.0246	-3.903
miR-378h	.0068	-2.085
miR-4500	.023	-2.004
let-7f	.0335	-1.908
miR-483-5p	.0131	-1.833
miR-30b-star	.0209	-1.819
miR-1303	.0337	-1.818
miR-4743	.0068	-1.787
miR-628-3p	.0157	-1.740
miR-616	.0254	-1.705
miR-125a-5p	.0094	-1.704
let-7g	.0407	-1.610
miR-4656	.0312	-1.566
miR-4458	.0184	-1.548

miR-34a-5p	.0103	1.585
miR-1260b	.0232	1.615
miR-575	.026	1.638
miR-1343	.0215	1.647
miR-4723-3p	.0447	1.686
miR-4786-3p	.0245	1.782
miR-3200-5p	.0221	1.801
miR-339-5p	.0289	1.805
miR-3194-5p	.0083	1.881
miR-4454	.0321	1.995
miR-34c-3p	.0307	1.996
miR-4286	.0042	2.214
miR-124-3p	.0289	2.987
miR-34a-3p	.0251	4.115

CHD, coronary heart disease; miRNA, microRNA; SCD, sudden cardiac death; SD, sudden death.

28 mature miRNAs differentially expressed (P < .05 and ± 1.5 fold-change) in epicardial adipose tissue from arteries with plaque in CHD-SCD patients (14 up-regulated and 14 down-regulated) compared to miRNAs in epicardial adipose tissue from arteries without plaque in non-CHD-SD controls.

Shaded lines indicate miRNA selected for the qRT-PCR experiments.

Table 2 of the supplementary material

Correlations Between Several Parameters and miRNAs Levels in Epicardial Adipose Tissue Extracts From Coronary Arteries Without Plaques in Non-CHD-SD Controls (N=28) and From Coronary Arteries With Plaque in CHD-SCD Patients (N=78).

	miR-34a-3p **r (*P*)**	**miR-34a-5p** **r (*P*)**	**miR-124-3p** **r (*P*)**	**miR-125a-5p** **r (*P*)**	**miR-628-5p[a]** **r (*P*)**	**miR-1303[b]** **r (*P*)**	**miR-4286** **r (*P*)**
Age							
Controls	0.412 (.029)	0.454 (.015)	0.247 (.279)	0.212 (.279)	0.204 (.317)	0.414 (.142)	-0.202 (.302)
Patients	0.023 (.840)	-0.034 (.767)	-0.083 (.471)	0.017 (.809)	-0.085 (.464)	0.206 (.203)	-0.032 (.779)
BMI							
Controls	0.280 (.185)	0.111 (.573)	-0.068 (.732)	0.011 (.955	-0.010 (.961)	0.038 (.897)	-0.029 (.882)
Patients	0.044 (.716)	-0.031 (.795)	-0.137 (.250)	-0.079 (.507)	-0.058 (.632)	-0.097 (.578)	-0.072 (.549)
AC							
Controls	0.227 (.287)	0.028 (.897)	-0.067 (.755)	-0.133 (.537)	0.313 (.156)	0.155 (.668)	0.174 (.417)
Patients	0.055 (.646)	0.032 (.788)	-0.199 (.095)	-0.082 (.492)	-0.109 (.367)	-0.087 (.621)	-0.125 (.296)
TC							

Controls	0.045 (.828)	0.240 (.238)	0.099 (.631)	-0.117 (.570)	0.086 (.689)	0.191 (.551)	-0.335 (.095)
Patients	-0.083 (.493)	-0.064 (.595)	0.000 (.998)	0.081 (.503)	0.058 (.636)	0.095 (.593)	0.105 (.383)
Right AV groove							
Controls	0.580 (.004)	0.461 (.027)	0.215 (.324)	0.338 (.115)	0.155 (.503)	0.487 (.129)	0.093 (.672)
Patients	0.107 (.353)	0.062 (.594)	0.075 (.518)	0.104 (.367)	-0.064 (.598)	0.151 (.347)	-0.138 (.228)
Anterior RV wall							
Controls	0.533 (.009)	0.414 (.049)	0.550 (.007)	0.197 (.368)	0.177 (.442)	0.487 (.129)	-0.126 (.567)
Patients	0.137 (.230)	0.061 (.595)	0.005 (.967)	0.070 (.544)	0.032 (.782)	0.328 (.036)	-0.026 (.822)
Lateral RV wall							
Controls	0.312 (.147)	0.257 (.236)	0.228 (.295)	0.015 (.947)	0.040 (.865)	0.111 (.746)	0.181 (.410)
Patients	0.077 (.500)	0.037 (.748)	-0.051 (.658)	0.001 (.996)	0.063 (.584)	0.056 (.728)	0.004 (.975)
Left AV groove							
Controls	0.486 (.019)	0.330 (.124)	0.419 (.047)	0.425 (.043)	0.161 (.486)	-0.107 (.753)	-0.044 (.841)
Patients	0.024 (.836)	0.051 (.659)	0.004 (.971)	0.072 (.533)	0.033 (.774)	0.304 (.054)	-0.064 (.575)
Anterior LV wall							
Controls	0.365 (.087)	0.219 (.314)	0.645 (.001)	0.149 (.497)	0.210 (.361)	0.370 (.262)	0.210 (.337)

Patients	0.148 (.197)	0.167 (.143)	0.136 (.236)	0.203 (.074)	0.178 (.122)	0.131 (.415)	0.082 (.477)
Anterior IV groove							
Controls	0.602 (.002)	0.509 (.013)	0.387 (.068)	0.404 (.056)	0.249 (.277)	-0.151 (.658)	-0.161 (.463)
Patients	-0.041 (.395)	-0.010 (.932)	-0.091 (.426)	-0.064 (.575)	-0.061 (.598)	0.151 (.347)	-0.138 (.228)
EAT score							
Controls	0.667 (.001)	0.537 (.008)	0.492 (.017)	0.373 (.079)	0.213 (.353)	0.254 (.451)	0.010 (.965)
Patients	0.098 (.395)	0.074 (.522)	-0.010 (.934)	0.070 (.544)	0.005 (.965)	0.233 (.148)	-0.067 (.563)

AC, abdominal circumference; AV, atrioventricular; BMI, body mass index; CHD, coronary heart disease; EAT, epicardial adipose tissue; EAT score, total sum of the epicardial adipose tissue thickness measurements in each individual; IV, interventricular; LV, left ventricular; RV, right ventricular; SCD, sudden cardiac death; SD, sudden death; TC, total cholesterol.

[a]As an exception, evaluable results of miR-628-5p levels were obtained in less CHD-SCD patients and non-CHD-SD controls (N=77 and N=26, respectively)

[b]As an exception, evaluable results of miR-1303 levels were obtained in less CHD-SCD patients and non-CHD-SD controls (N=41 and N=14, respectively)

Figure 1 of the supplementary material.

Postmortem EAT measurement technique. A: maximal measurement on the RV and LV surfaces. B: measurements at the grooves. 1, anterior RV wall; 2, lateral RV wall; 3, posterior RV wall; 4, posterior LV wall; 5, lateral LV wall; 6, anterior LV wall; 7, left AV groove; 8, right AV groove; 9, anterior IV groove. EAT, epicardial adipose tissue. RV, right ventricular; LV, left ventricular.

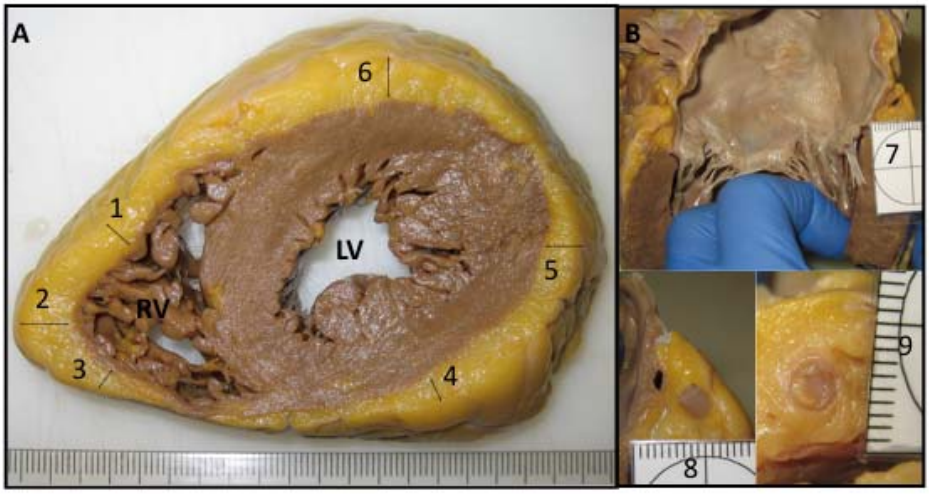
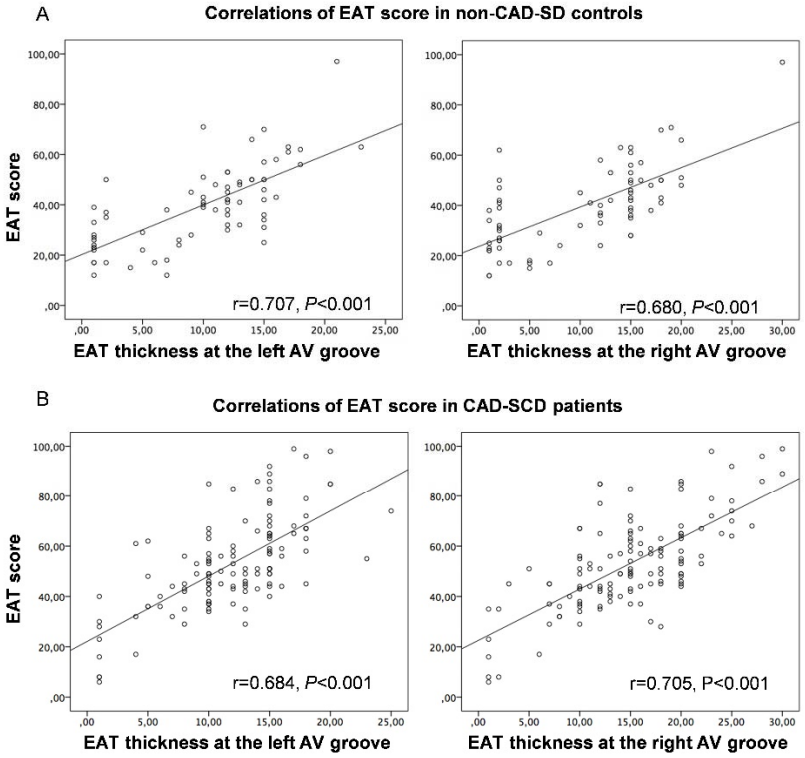


Figure 2 of the supplementary material.

Correlations of the EAT score with the individual EAT measurements at different sites in non-CHD-SD controls (N = 73) and CHD-SCD patients (N = 130). A: the most relevant correlations in controls are shown, the rest are listed on the left. B: the most relevant correlations in patients are shown, the rest are listed on the left. AV, atrioventricular; CHD, coronary heart disease; EAT, epicardial adipose tissue; EAT score, total sum of the EAT thickness measurements in each individual; IV interventricular; LV, left ventricular; RV; right ventricular; SCD, sudden cardiac death; SD, sudden death.

Statistical significance ($P < .05$) was assessed by Pearson correlations.



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Correlations of EAT score

	CONTROLS		PATIENTS	
	r	*P*	r	*P*
Anterior IV groove	0.425	<0.001	0.731	<0.001
Anterior LV wall	0.463	0.003	0.445	<0.001
Anterior RV wall	0.461	<0.001	0.56	<0.001
Lateral RV wall	0.547	<0.001	0.655	<0.001
Lateral LV wall	0.537	<0.001	0.458	<0.001
Posterior RV wall	0.418	<0.001	0.339	<0.001
Posterior LV wall	0.281	0.018	0.325	<0.001