Supplemental material

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Open Heart

SUPPLEMENTAL FILE 5. Univariable and multivariable analyses

Univariable analysis screening-participants and TAD-patients

Variable	RDSQ score		HADS anxiety score		HADS depression score	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
Age - y	-0.04	0.770	-0.04	0.024*	-0.01	0.535
Sex	5.31	0.209	1.47	0.003**	0.74	0.114
Length - m	-0.10	0.482	-0.02	0.263	-0.01	0.725
Weight - kg	-0.11	0.335	-0.02	0.186	0.00	0.985
BSA	-9.84	0.313	-1.64	0.151	-0.01	0.996
Hypertension	2.70	0.525	-0.12	0.817	0.21	0.661
Hyperlipidemia	0.39	0.937	-0.32	0.578	0.05	0.923
Smoking	2.72	0.717	1.23	0.169	1.57	0.056
Diabetes	13.56	0.241	2.12	0.120	3.97	0.002**
Renal dysfunction	8.02	0.603	0.66	0.717	-1.30	0.449
Depression	-1.34	0.879	2.05	0.048*	2.44	0.013*
Anxiety	15.61	0.364	6.14	0.002**	7.59	<0.001**
Beta blocker use	6.91	0.169	-0.46	0.437	0.94	0.092
ARB use	9.52	0.129	0.32	0.662	0.36	0.608
ACEi use	1.04	0.857	-0.62	0.355	0.04	0.950
Diagnosis						
Marfan Syndrome	8.75	0.432	-1.10	0.402	-1.34	0.284
Loeys-Dietz Syndrome	-6.98	0.531	-2.14	0.102	-2.07	0.097
Ehlers-Danlos Syndrome	-39.62	0.105	-2.58	0.373	-2.40	0.381
Other	-12.40	0.224	-0.50	0.680	-0.05	0.964
Positive family history aortic disease	-4.86	0.252	-0.27	0.593	-0.48	0.308
Abdominal aortic aneurysm	-11.18	0.334	-0.53	0.699	1.10	0.396
Maximal diameter aortic root	0.62	0.106	-0.06	0.164	-0.01	0.873
Indexed diameter aortic root[1] (mm/BSA)	2.13	0.010**	0.04	0.684	0.01	0.890
Maximal diameter ascending aorta	0.90	0.004**	-0.01	0.815	0.014	0.694
Indexed diameter ascending aorta[1] (mm/BSA)	1.85	0.002**	0.07	0.344	0.04	0.551
Maximal diameter descending aorta	0.26	0.483	-0.03	0.568	0.03	0.437
Indexed diameter descending aorta[1] (mm/BSA)	1.04	0.187	0.04	0.657	0.136	0.131
Previous aortic surgery	7.90	0.214	-0.12	0.872	1.70	0.016*
Previous dissection	11.63	0.118	-0.14	0.873	0.41	0.62
Current partner	13.04	0.034*	1.98	0.009**	1.52	0.035*
Current employment	7.35	0.125	0.16	0.774	0.01	0.988
Exercise	-5.614	0.200	-0.10	0.851	-0.34	0.498

BSA=Body Surface Area; ARB= Angiotensin II receptor blocker; ACEi= Angiotensin Converting Enzyme inhibitor; LVEF= left ventricular ejection fraction; MFS= Marfan Syndrome.
* Significant at the 0.05 level
** Significant at the 0.01 level
[1] Aortic diameter indexed for Body Surface Area.

Univariable analysis partners

Variable	RDSQ score		HADS anxiety score		HADS depression score	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
Age - y	0.16	0.581	0.05	0.252	0.07	0.097
Sex	0.78	0.915	-0.82	0.339	-0.36	0.658
Length - m	-0.30	0.375	-0.00	0.910	-0.03	0.518
Weight - kg	-0.26	0.263	0.01	0.750	-0.00	0.970
BSA	-18.62	0.268	0.395	0.845	-0.52	0.792
Hypertension	9.12	0.220	0.00	0.998	1.01	0.226
Hyperlipidemia	16.82	0.023*	1.60	0.067	1.83	0.026*
Smoking	42.81	0.004**	1.41	0.500	4.24	0.042*
Diabetes	36.79	0.031*	1.76	0.370	3.90	0.034*
Renal dysfunction	-	-	-	-	-	-
Depression	12.44	0.287	-0.54	0.705	-0.69	0.611
Anxiety	-	-	-	-	-	-
Beta blocker use	13.59	0.076	0.82	0.362	1.37	0.103
ARB use	10.75	0.284	-1.81	0.128	0.60	0.599
ACEi use	-1.58	0.848	1.62	0.085	0.93	0.301
Diagnosis						
Marfan Syndrome	-28.88	0.097	-0.68	0.735	-2.42	0.201
Loeys-Dietz Syndrome	-15.05	0.325	0.65	0.711	-1.21	0.466
Ehlers-Danlos Syndrome	-3.92	0.896	-	-	-	-
Other	-19.16	0.522	2.40	0.482	2.41	0.455
Positive family history aortic disease	7.16	0.321	0.28	0.739	-0.11	0.891
Abdominal aortic aneurysm	25.43	0.040*	-0.17	0.904	0.42	0.759
Maximal diameter aortic root	0.85	0.191	0.07	0.382	0.02	0.810
Indexed diameter aortic root[1] (mm/BSA)	2.92	0.016*	0.14	0.336	0.08	0.571
Maximal diameter ascending aorta	1.18	0.061	0.14	0.095	0.11	0.140
Indexed diameter ascending aorta[1] (mm/BSA)	2.46	0.021*	0.24	0.074	0.20	0.119
Maximal diameter descending aorta	0.88	0.251	-0.00	0.975	0.05	0.590
Indexed diameter descending aorta[1] (mm/BSA)	2.96	0.045*	-0.08	0.643	0.14	0.409
Previous aortic surgery	18.73	0.036*	1.32	0.203	1.75	0.073
Previous dissection	21.77	0.080	2.97	0.035*	1.16	0.394
Current employment	-4.27	0.594	-0.33	0.670	-0.60	0.448
Exercise	-11.74	0.134	-0.34	0.719	-0.37	0.679

BSA=Body Surface Area; ARB= Angiotensin II receptor blocker; ACEi= Angiotensin Converting Enzyme inhibitor; LVEF= left ventricular ejection fraction; MFS= Marfan Syndrome.
* Significant at the 0.05 level
** Significant at the 0.01 level
[1] Aortic diameter indexed for Body Surface Area.

Multivariable analyses in screening participants and TAD-patients

HADS anxiety score

Covariate	Coefficient	95% CI	p-value
Intercept	4.26		0.044
Sex	1.81		0.058
Age	-0.03		0.279
History of depression	-2.17		0.275
History of anxiety disorder	6.89		0.006

HADS depression score

Covariate	Coefficient	95% CI	p-value
Intercept	-1.19		0.651
Sex	0.89		0.364
Age	-0.04		0.180
History of depression	-1.90		0.42
History of anxiety disorder	9.80		<0.001
Previous aortic surgery	3.55		0.016
Diabetes Mellitus	6.38		0.009
Indexed descending aortic diameter[1]	0.36		0.028

RDSQ score

Covariate	Coefficient	95% CI	p-value
Intercept	30.68		0.093
Sex	11.36		0.142
Age	0.06		0.786
History of depression	-4.42		0.783
History of anxiety disorder	6.10		0.756
Employment	17.28		0.023

Multivariable analyses in partners

HADS anxiety score

Covariate	Coefficient	95% CI	p-value
Intercept	1.31		0.666
Age	0.06		0.200
Sex	-0.40		0.667
Previous aortic dissection	7.42		<0.001
ARB use	-5.79		0.007

HADS depression score

Covariate	Coefficient	95% CI	p-value
Intercept	-4.15		0.198
Age	0.06		0.241
Sex	1.60		0.085
Previous aortic surgery	3.30		0.010

RDSQ score

Covariate	Coefficient	95% CI	p-value
Intercept	-14.95		0.692
Age	0.75		0.183
Sex	12.64		0.247
Previous aortic dissection	36.41		0.049

HADS= Hospital Anxiety and Depression Scale; RDSQ= Rotterdam Disease Specific Questionnaire; TAD= Thoracic aortic disease; ARB= Angiotensin Receptor Blocker; CI= Confidence Interval.
[1] Aortic diameter indexed for Body Surface Area.