

Supplementary materials

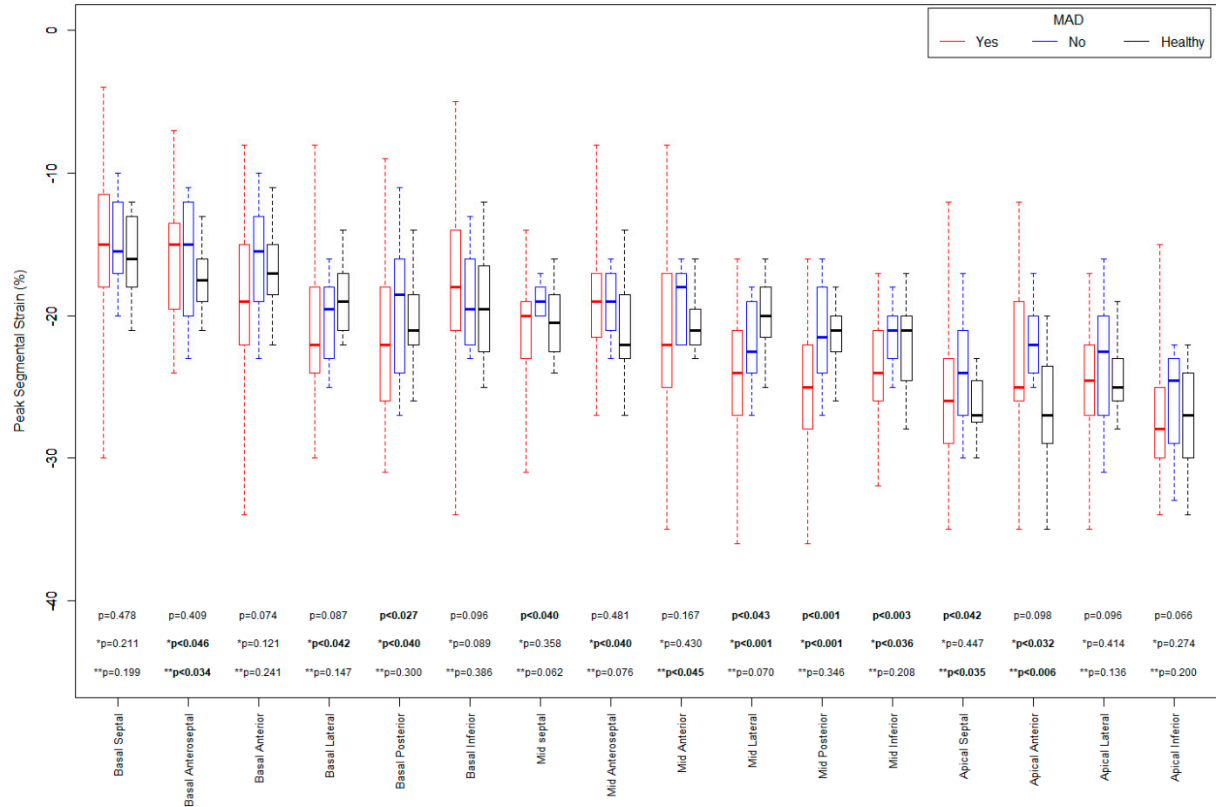


Figure S1. Peak Segmental Strain comparison between MAD+, MAD- and Healthy groups in sixteen segments.

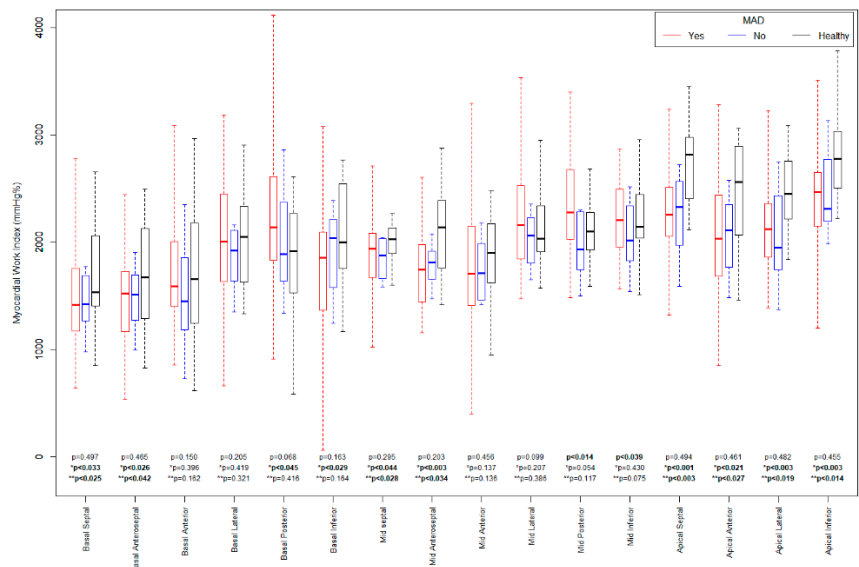


Figure S2. Myocardial Work Index comparison between MAD+, MAD- and Healthy groups in sixteen segments.

Table S1. The number of strains with abnormally increased peak segmental strain values

	MAD+ n = 47	MAD- n = 25	Healthy n = 20	p*	p**	p***
Peak segmental strain ≥ 25% for all segments	8 (5 - 9)	3 (1 - 6)	4 (3 - 5)	0.005	0.040	0.103
Peak segmental strain ≥ 25% for basal	2 (1 - 2)	1 (0 - 1)	0 (0 - 0)	0.014	0.004	0.359
Peak segmental strain ≥ 25% for basal and mid	3 (3 - 5)	1 (1 - 3)	0 (0 - 1)	<0.000	<0.000	0.354

p* - p between MAD+ and MAD-; p** - p between MAD+ and Healthy; p*** - p between MAD- and Healthy

MAD – mitral annular disjunction

Table S2. Inter- and Intra-Observer Variability of GLS, peak segmental strains and segmental MW index values

	Intra - Observer				Inter - Observer			
	Bias	95% Limits of Agreement	ICC	CV (%)	Bias	95% Limits of Agreement	ICC	CV (%)
Peak segmental strain (%)	- 0.74	- 0.35 to -1.12	0.87*	17	0.86	0.48 to 1.25	0.83*	17
MW index (mmHg%)	119.36	90.86 to 147.86	0.92	14	-88.95	-61.48 to -114.44	0.88	13

*p < 0.001. ICC - intra-class correlation coefficient, CV – coefficient of variation, MW – myocardial work

Video S1. Transthoracic echocardiography (long-axis parasternal view) of MVP patient with MAD presence (systolic separation of the mitral leaflet and left atrial junction from the summit to the left ventricular posterior wall).