

Supplementary table 1: Baseline CMR variables between DCM patients and athletes in the ‘gray-zone’

	DCM (n=34)	Athlete in the ‘grey-zone’ (n=24)	P value
LVEDV (ml)	236.2±46.6	237.7±35.9	0.896
LVEDVi (ml/m ²)	112.7±23.7	118.9±20.5	0.306
LVESV (ml)	117.0(93-138)	103.5(91.3-118.0)	0.017
LVESVi (ml/m ²)	55.5(45.8-68.0)	65.5(55.8-71.8)	0.034
LV stroke volume (ml)	115.6±26.2	131.4±18.2	0.014
LV stroke volume indexed (ml/m ²)	55(46.3-55)	65.5(55.8-71.8)	0.06
LV Ejection Fraction (%)	49.4±8.4	55.3±4.5	<0.003
RVEDV (ml)	205.5±43.2	227.2±46.0	0.072
RVEDVi (ml/m ²)	98.1±22.2	112.9±25.9	0.023
RVESV (ml)	96.8±26.6	101.0±29.8	0.574
RVESVi (ml/m ²)	52.5(44-61)	62(53.3-69.5)	0.017

RV stroke volume (ml)	101.8±30.4	123.6±24.1	0.005
RV stroke volume indexed (ml/m ²)	54.7±20.6	61.8±13.9	0.151
RV ejection fraction (%)	52.8±6.8	55.2±6.6	0.189
LV Mass (g)	145.9±42.8	157.3±27.9	0.257
LV mass indexed (g/m ²)	66(56.5-70.8)	75(70-83.3)	0.001
LGE	17 (50%)	0	p<0.0001

LGE=late gadolinium enhancement; LV=left ventricular; LVEDV=left ventricular end-diastolic volume; LVEDVi=indexed left ventricular end-diastolic volume; LVESV=left ventricular end-systolic volume; LVESVi=indexed left ventricular end-systolic volume; RV=right ventricular; RVEDV=right ventricular end-diastolic volume; RVEDVi=indexed right ventricular end-diastolic volume; RVESV=right ventricular end-systolic volume; RVESVi=indexed right ventricular end-systolic volume;

Supplementary table 2: Cardiopulmonary Exercise Test variables.

	DCM (n=35)	Athletes in 'grey- zone' (n=25)	Athlete controls (n=24)	P value
pV02 (ml/kg/min)	36.0±9.4	52.7±10.0*	55.4±7.2*	<0.0001
pV02 (% predicted)	98.6±22.6	127.6±23.4*	137.0±17.5*	<0.0001
AT (ml/kg/min)	21.5±6.7	35.9±11.8*	40.4±7.7*	<0.0001
AT (% of predicted V02)	61.1±16.7	86.0±20.9*	97.2±19.6*	<0.0001
VE (peak)	115.4±29.3	154.8±32.5*	153.9±28.8*	<0.0001
RER	1.22±0.10	1.21±0.07	1.20±0.06	0.610
Max HR (bpm)	172(148- 178)	173(170-183)	174.5(165-181.5)	0.069
Max SBP (mmHg)	172.3±23.9	190.4±26.2*	186.7±24.9*	0.0148
Max DBP (mmHg)	86.9±11.3	90.3±15.0	85.3±13.8	0.408
VE/VC02	25.2±3.5	25.9±4.2	25.3±2.5	0.704
Work (METs)	10.0±2.7	15.8±2.6*	15.7±2.1*	<0.0001

AT=anaerobic threshold; AT (% of predicted V02)=anaerobic threshold as percentage of peak oxygen consumption; bpm=beats per minute; DBP= diastolic blood pressure; HR=heart rate; METs=metabolic equivalents; PV02=peak oxygen consumption; PV02 (%

predicted)=*peak oxygen consumption as percentage of age, weight and sex predicted*;
RER=*respiratory exchange ratio*; *SBP*=*systolic blood pressure*; *VE*=*expired ventilation*;
VE/VC02=; *minute ventilation/carbon dioxide production relationship*. *=*non-significant*
between the athletes in the 'gray-zone' and the control athlete