

Figure S1 Schematic pulse sequence diagram of free-breathing T2WI (A), cine imaging (B), and LGE imaging (C).

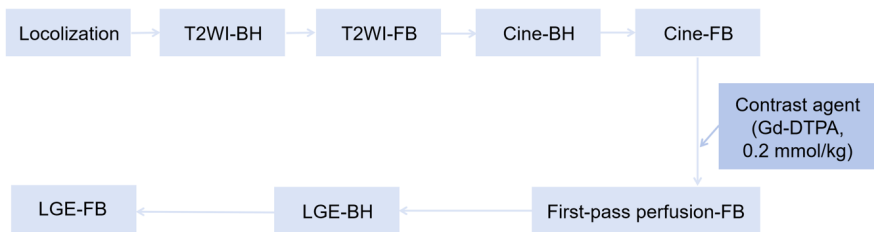


Figure S2 Cardiac MRI scanning protocol.

Table S1 Image quality assessment of patients with heart failure or arrhythmia (n=33)

Parameter	Cine			T2WI			LGE		
	BH	FB MoCo	P value	BH	FB MoCo	P value	BH	FB	P value
General IQ scores	3.76±1.00	4.18±0.64	0.073	3.91±0.84	4.00±0.90	0.660	4.09±0.84	4.12±0.78	0.962
Mean acquisition time (sec)	257±48	43±20	<0.001	283 (237, 306)	124 (106, 136)	<0.001	344 (306, 383)	323 (260, 396)	0.497
BMC	4.22±1.05	4.48±1.10	0.304	–	–	–	–	–	–
SNR	–	–	–	47±21	53±19	0.195	42 (27, 67)	50 (41, 65)	0.382
CNR _{NM-BP}	–	–	–	42±21	45±17	0.401	–9 (–14, 4)	–5 (–11, 7)	0.120
CNR _{LGE-BP}	–	–	–	–	–	–	–15 (–61, 13)	–22 (–52, 8)	0.727
CNR _{LGE-NM}	–	–	–	–	–	–	44 (31, 61)	53 (38, 76)	0.128

Data are presented as mean ± standard deviation or median (interquartile range).

Table S2 Qualitative and quantitative analysis of cardiac function and LGE in patients with heart failure or arrhythmia (n=33)

Parameter	BH	FB	P value	Mean difference (95% CI)
LVEDV (mL)	229 (176, 304)	232 (189, 314)	0.954	–0.05 (–4.89, 4.80)
LVESV (mL)	182 (119, 217)	197 (120, 228)	0.883	–1.66 (–4.88, 1.56)
LVSV (mL)	55 (36, 69)	51 (36, 65)	0.724	1.72 (–1.19, 4.63)
LVEF (%)	25 (17, 37)	22 (15, 36)	0.783	0.51 (–0.92, 1.94)
LV mass (g)	142 (112, 178)	142 (120, 183)	0.873	–1.59 (–6.35, 3.17)
RVEDV (mL)	161±56	161±56	0.913	–0.02 (–4.28, 4.25)
RVESV (mL)	101 (70, 138)	101 (75, 141)	0.954	–0.73 (–4.23, 2.78)
RVSV (mL)	47 (38, 60)	46 (39, 58)	0.803	0.78 (–2.37, 3.93)
RVEF (%)	35 (25, 43)	34 (25, 44)	0.793	0.30 (–1.78, 2.38)
Myocardial edema	1 (3.03%)	1 (3.03%)	>0.999	–
LGE presence	25 (75.76%)	25 (75.76%)	>0.999	–
LGE%	17 (10, 33)	18 (11, 30)	0.803	–1.24 (–2.78, 0.30)

Data are presented as median (interquartile range), mean ± standard deviation, or n (%), unless otherwise indicated.