

Table S1. Comorbidities and Other medications during follow-up

Varibilities	Patients with available data, n	No chronic myocardial (n=62)	Chronic myocardial (n=20)	P- value
Comorbidities				
Hyperthyroidism	82	1 (1.6)	1 (5.0)	0.984
Hypothyroidism	82	1 (1.6)	1 (5.0)	0.984
Hyperlipidemia	82	7 (11.3)	1 (5.0)	0.696
Diabetes mellitus	82	0 (0.0)	2 (10.0)	0.092
Hypertension	82	7 (11.3)	1 (5.0)	0.696
Lung infections	82	18 (29.0)	3 (15.0)	0.339
III degree Atrioventricular Block	82	4 (6.5)	1 (5.0)	>0.999
Complete right bundle branch block	82	2 (3.2)	1 (5.0)	>0.999
Anemia	82	6 (9.7)	0 (0.0)	0.341
Pleural effusion	82	19 (30.6)	3 (15.0)	0.279
Pericardial effusion	82	15 (24.2)	1 (5.0)	0.119
Viral hepatitis type B/C	82	0 (0.0)	3 (15.0)	0.015
Hepatic insufficiency	82	26 (41.9)	7 (35.0)	0.774
Renal insufficiency	82	4 (6.5)	1 (5.0)	>0.999
Other medications during follow-up				
Coenzyme Q10	82	53 (85.5)	18 (90.0)	0.89
Trimetazidine	82	56 (90.3)	20 (100.0)	0.341
Thiamazole	82	0 (0.0)	1 (5.0)	0.548

Levothyroxine sodium	82	0 (0.0)	1 (5.0)	0.548
Reduced Glutathione	82	5 (8.1)	3 (15.0)	0.634
Statin	82	2 (3.2)	0 (0.0)	>0.999
Ivabradine hydrochloride	82	5 (8.1)	0 (0.0)	0.439
Diuretics	82	8 (12.9)	3 (15.0)	>0.999
Calcium Carbonate and Vitamin D3	82	18 (29.0)	5 (25.0)	0.95
Iron Polysaccharide Complex	82	3 (4.8)	0 (0.0)	0.751
Oral Antidiabetic Drug	82	0 (0.0)	1 (5.0)	0.548
Antibiotics	82	4 (6.5)	1 (5.0)	>0.999
Anti-HBV/HCV agents	82	0 (0.0)	3 (15.0)	0.015

HBV, Hepatitis B; HCV, Hepatitis C.

Table S2. Baseline Characteristics of patients in the study (continued)

Varibilities	Patients with availabl e data, n	No chronic myocardial (n=62)	Chronic myocardial (n=20)	P- value
Symptoms				
Chest Distress	82	32 (51.6)	5 (25.0)	0.038
Chest Pain	82	12 (19.4)	7 (35.0)	0.255
Palpitation	82	11 (17.7)	4 (20.0)	>0.999
Syncope/Blackout	82	10 (16.1)	3 (15.0)	>0.999
Fever	82	25 (40.3)	6 (30.0)	0.408
Shortness of Breath or Dyspnea	82	9 (14.5)	7 (35.0)	0.092
Dizziness or Headache	82	5 (8.1)	1 (5.0)	>0.999
Fatigue	82	16 (25.8)	4 (20.0)	0.821
Cough and Sputum	82	1 (1.6)	0 (0.0)	>0.999
Abdominal Pain or Diarrhea	82	11 (17.7)	3 (15.0)	>0.999
History				
Smoking	82	11 (17.7)	2 (10.0)	0.637
Drinking	82	1 (1.6)	0 (0.0)	>0.999
Examination for diagnosis				
CMR	82	59 (95.2)	16 (80.0)	0.099
EMB	82	37 (59.7)	8 (40.0)	0.124
Laboratory Examination				

Lactic Acid, mmol/L	58	2.30 (1.49, 3.81)	2.32	(1.67, 0.46 5.24)
D-D Dimer, ug/mL	82	1.80 (0.95, 4.07)	1.46	(0.50, 0.362 4.14)
APTT, s	79	43.10 (36.80, 70.10)	41.40	(38.75, 0.944 76.75)
PT, s	79	14.40 (13.50, 15.80)	15.00	(14.05, 0.335 16.00)
Hemoglobin, g/L	82	125.00 (115.00, 134.00)	120.00	0.589 (110.25, 135.25)
Platelets, *10 ⁹ /L	82	185.00 (150.75, 236.75)	163.50	0.261 (148.50, 209.00)
ALT, U/L	82	53.00 (30.25, 113.25)	67.00	(45.75, 0.128 246.75)
AST, U/L	82	115.00 (65.75, 232.50)	223.00	0.046 (129.75, 464.25)
Creatinine, umol/L	82	72.00 (61.00, 98.25)	75.00	(59.25, 0.957 87.25)
K, mmol/L	82	4.03 (3.72, 4.27)	4.22	(3.82, 0.315 4.53)

n, Patients with available data; CMR, Cardiac Magnetic Resonance; EMB, Endomyocardial Biopsy; APTT, Activated Partial Thromboplastin Time; PT, Prothrombin time; ALT, alanine aminotransferase; AST, aspartate aminotransferase; K, Serum Potassium.

Table S3. In-hospital management of the patients

Management	n	No chronic myocardial (n=62)	Chronic myocardial (n=20)	P- value
Emergency Treatment				
Invasive Mechanical Ventilation	82	5 (8.2)	2 (10.0)	>0.999
Chest Compressions/Defibrillation	82	11 (18.0)	3 (15.0)	>0.999
Mechanical circulatory support				
IABP	82	58 (93.5)	19 (95.0)	>0.999
ECMO	82	20 (32.3)	5 (25.0)	0.739
External Temporary Pacemaker	82	26 (41.9)	6 (30.0)	0.492
CRRT	82	11 (17.7)	3 (15.0)	>0.999
Drug therapy				
Inotropes	82	33 (53.23)	8 (40.0)	0.222
Antiviral Drugs	82	76 (98.7)	26 (96.3)	>0.999
Immunosuppressive therapy				
IVIG	82	59 (95.2)	20 (100.0)	0.751

IVIG Dosage	82	50.00 (40.00, 80.00)	42.50 (33.75, 60.00)	0.357
Glucocorticoid	82	62 (100.0)	20 (100.0)	>0.999
Glucocorticoid Dosage	82	880.00 (610.00, 1395.00)	840.00 (630.00, 1170.00)	0.563

IABP, intra-aortic ballon pump; ECMO, extracorporeal membrane

oxygenation; CRRT, continuous renal replacement therapy; IVIG, intravenous

immunoglobulin.

Table S4. Association between Follow-up hs-cTnI & Follow-up LVEF

follow-up	LVEF	follow-up hs-cTnI				
		1 month	3 month	6 month	12 month	24 month
1 month	correlation coefficient	-0.353**	-0.255	-0.321	-0.043	-0.232
	n	64	34	32	31	10
3 month	correlation coefficient	-0.236	0.084	0.030	0.381*	-0.208
	n	47	33	25	29	7
6 month	correlation coefficient	-0.069	-0.147	0.001	-0.286	-0.164
	n	34	27	27	23	7
12 month	correlation coefficient	0.010	0.219	0.023	-0.076	0.162
	n	39	23	22	23	8
24 month	correlation coefficient	0.246	-0.071	-0.208	-0.264	0.043
	n	11	4	6	6	8

* p<0.05; ** p<0.01

LVEF, Left ventricular ejection fraction; hs-cTnI, high-sensitive cardiac troponin I; n, Patients with available data; r, Person correlation coefficient

Table S5. Univariate analysis of factors associated with the occurrence of chronic persistent myocarditis

	Univariate Logistic		Univariate Cox	
	95.0% CI	<i>p</i>	95.0% CI	<i>p</i>
Age	1.02 (0.98-1.05)	0.296	1.02 (0.986-1.05)	0.308
Sex(male)	1.21 (0.44-3.35)	0.712	1.19 (0.495-2.88)	0.693
Time from onset to admission >6d	3.63 (1.12-11.84)	0.032	2.81 (1.12-7.06)	0.028
Hospitalization Time	0.98 (0.90-1.07)	0.679	0.976 (0.9-1.06)	0.553
Smoking History	0.52 (0.10-2.55)	0.416	0.563 (0.131-2.43)	0.441
Drinking History	0.00 (0.00-Inf)	0.992	0.00 (0.00-Inf)	0.998
Systolic Blood Pressure	1.01 (0.98-1.05)	0.434	1.01 (0.984-1.04)	0.455
Diastolic Blood Pressure	1.00 (0.96-1.04)	0.900	1.00 (0.965-1.04)	0.993
CMR	0.20 (0.04-1.00)	0.050	0.255 (0.0841-0.77)	0.015
Coronary Angiography	1.02 (0.36-2.94)	0.969	1.00 (0.398-2.52)	0.997
EMB	0.45 (0.16-1.26)	0.129	0.509 (0.207-1.25)	0.142
ST-T Changes	1.77 (0.57-5.51)	0.325	1.63 (0.59-4.5)	0.347
Invasive Mechanical Ventilation	1.04 (0.19-5.60)	0.966	0.938 (0.214-4.11)	0.932
Chest Compressions/Defibrillation				
IABP	1.31 (0.14-12.45)	0.814	1.28 (0.17-9.61)	0.812
IABP Time	0.96 (0.83-1.12)	0.609	0.97 (0.85-1.11)	0.647
ECMO	0.70 (0.22-2.20)	0.541	0.652 (0.236-1.8)	0.409
ECMO Time	0.95 (0.80-1.13)	0.566	0.951 (0.812-1.11)	0.536
External Temporary Pacemaker	0.59 (0.20-1.75)	0.344	0.609 (0.234-1.58)	0.309
External Temporary Pacemaker Time	0.89 (0.74-1.08)	0.244	0.904 (0.76-1.08)	0.255

CRRT	0.82 (0.20-3.28)	0.777	0.811 (0.238-2.77)	0.738
CRRT Time	1.01 (0.99-1.02)	0.284	1.01 (0.999-1.01)	0.074
Inotropes	0.59 (0.21-1.63)	0.306	0.59 (0.239-1.45)	0.251
Immunoglobulin Dosage	0.99 (0.97-1.01)	0.373	0.992 (0.977-1.01)	0.337
Glucocorticoid Dosage	1.00 (1.00-1.00)	0.512	1.00 (0.999-1.00)	0.514
ACEI/ARB	3.12 (0.82-11.82)	0.095	2.48 (0.725-8.48)	0.148
β Blocker	0.95 (0.33-2.74)	0.926	0.906 (0.36-2.28)	0.833
LVEF At Admission	0.97 (0.93-1.01)	0.116	0.974 (0.939-1.01)	0.142
Lowest LVEF	1.00 (0.96-1.03)	0.842	1.00 (0.97-1.03)	0.995
hs-cTnI	1.00 (1.00-1.00)	0.018	1.00 (1.00-1.00)	0.020
elevated CK/CK-MB	1.36 (0.26-7.15)	0.714	1.29 (0.295-5.64)	0.736
NT-proBNP	1.00 (1.00-1.00)	0.025	1.00 (1.00-1.00)	0.009
Lactic Acid	1.17 (0.86-1.58)	0.316	1.13 (0.862-1.49)	0.368
D-D Dimer	1.00 (1.00-1.00)	0.793	1.00 (0.999-1.00)	0.901
APTT	1.00 (0.99-1.02)	0.948	1.00(0.987-1.01)	0.986
PT	0.99 (0.90-1.07)	0.733	0.99 (0.919-1.07)	0.780
WBC	1.06 (0.97-1.15)	0.207	1.05 (0.998-1.1)	0.061
Neutrophil	1.06 (0.97-1.15)	0.227	1.05 (0.993-1.11)	0.085
Lymphocyte	0.92 (0.63-1.34)	0.651	0.937 (0.682-1.29)	0.690
Hemoglobin	1.00 (0.97-1.02)	0.773	0.998 (0.974-1.02)	0.842
Platelets	1.00 (0.99-1.00)	0.250	0.997 (0.991-1.00)	0.319
ALT	1.00 (1.00-1.00)	0.386	1.00 (1.00-1.00)	0.367
AST	1.00 (1.00-1.00)	0.329	1.00 (1.00-1.00)	0.286
Creatinine	1.00 (0.99-1.01)	0.416	1.00 (0.996-1.01)	0.345
LDH	1.00 (1.00-1.00)	0.024	1.00 (1.00-1.00)	0.013
K	1.54 (0.61-3.89)	0.359	1.53 (0.69-3.41)	0.294
hs-CRP	1.00 (0.99-1.01)	0.898	1.00 (0.994-1.01)	0.981
ESR	1.00 (0.97-1.03)	0.820	1.00 (0.977-1.03)	0.876
IL-1 β	1.05 (0.96-1.14)	0.265	1.02 (1.01-1.04)	0.007

IL-2R	1.00 (1.00-1.00)	0.839	1.00 (0.999-1.00)	0.844
IL-6	1.01 (1.00-1.03)	0.033	1.01 (1.00-1.01)	0.028
IL-8	1.00 (1.00-1.00)	0.108	1.00 (1.00-1.00)	0.015
IL-10	1.00 (0.98-1.03)	0.749	1.00 (0.984-1.02)	0.751
TNF- α	1.02 (0.99-1.05)	0.129	1.01 (0.996-1.03)	0.138
PCT	0.99 (0.92-1.07)	0.773	0.987 (0.917-1.06)	0.736

n, Patients with available data; SBP, Systolic Blood Pressure; DSP, Diastolic Blood Pressure; LVEF, left ventricular ejection fraction; IABP, intra-aortic balloon pump; ECMO, extracorporeal membrane oxygenation; CRRT, continuous renal replacement therapy; hs-cTnI, high-sensitive cardiac troponin I; NT-proBNP, N-terminal pro-B-type natriuretic peptide; LDH, lactate dehydrogenase; CK-MB, Creatine Kinase MB isoenzyme; CK, Creatine Kinase; hs-CRP, high-sensitive C-reactive protein; ESR, Erythrocyte Sedimentation Rate; CMR, Cardiac Magnetic Resonance; EMB, Endomyocardial Biopsy; APTT, Activated Partial Thromboplastin Time; PT, Prothrombin time; ALT, alanine aminotransferase; AST, aspartate aminotransferase; K, Serum Potassium; PCT, Procalcitonin.

Supplementary Figure Legends

Figure S1. Flow chat of the study.

Figure S2. Representative change in follow-up hs-cTnI and follow-up LVEF in chronic myocarditis persistent patient (a) and recovered patient (b).

304 patients clinically diagnosed as acute myocarditis between February 2017 and June 2023 from Tongji Hospital and Minda Hospital of Hubei Minzu University

165 non fulminant myocarditis patients excluded

- No distinct heart failure symptoms
- No haemodynamic compromise requiring inotropes and/or mechanical circulatory support
- Not confirmed by EMB or CMR

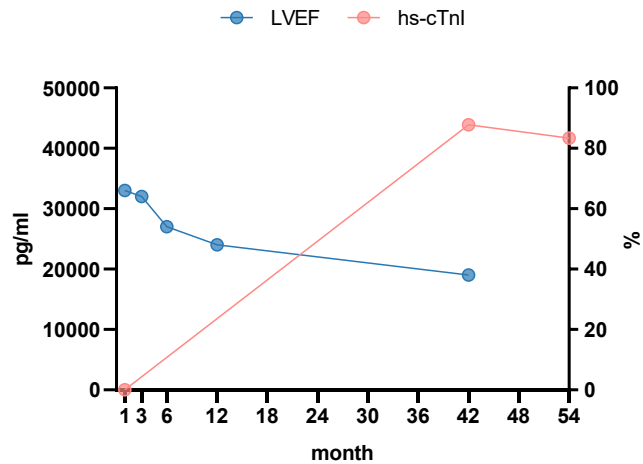
139 patients clinically diagnosed as fulminant myocarditis

49 patients meet the exclusion criteria excluded

- Dead in hospital or HTx
- Refusal of follow-up
- History of ischemic cardiomyopathy, myocarditis, cardiomyopathy, malignant tumor/cancer and other diseases that affect cardiac function and prognosis
- Time from onset to admission > 30d
- Children (< 15 years old)

8 patients lack of follow-up data excluded

82 met the final criteria for the study

a**b**