

Supplemental Material

Table S1. Comparison between patients undergoing or not undergoing cardiac magnetic resonance (CMR).

	All patients n=37	CMR n=29 (78)	No CMR n=8 (22)	p
Men, n (%)	34 (92)	27 (93)	7 (88)	0.607
Age (years)	72 (68-81)	71 (64-82)	74 (67-84)	0.704
AL/ATTR, n (%)		16/13 (55/45)	3/5 (38/63)	0.376
eGFR (mL/min/1.73 m ²)	67 (45-79)	62 (44-84)	49 (41-77)	0.373
NYHA class I-II/III-IV, n (%)		12/17 (41/59)	3/5 (38/62)	0.843
NT-proBNP (ng/L)	6,772 (2,071-12,557)	7,901 (1,294-12,872)	10,055 (5,265-14,800)	0.421
hs-TnT (ng/L)	62 (38-140)	60 (38-173)	79 (34-202)	0.925
sST2 (ng/mL)	27 (16-37)	28 (17-41)	22 (15-33)	0.415
TTE				
E/e'	17 (12-24)	19 (12-24)	17 (13-26)	0.842
LAVi (mL/m ²)	24 (21-28)	21 (20-26)	28 (24-30)	0.023
Moderate/severe aortic stenosis, n (%)	2 (5)	2 (7)	0 (0)	0.445
TAPSE	17 (13-22)	18 (14-22)	13 (11-18)	0.208

Diphosphonate scintigraphy				
Perugini score 0/1/2/3, n (%)	18/0/5/14 (49/0/14/38)	15/0/3/11 (52/0/10/38)	3/0/2/3 (38/0/25/38)	0.533
Heart-to-controlateral lung ratio	1.36 (1.06-1.91)	1.30 (1.04-1.83)	1.41 (1.09-2.18)	0.604
Extent of amyloid deposits (%)	15 (10-30)	18 (8-30)	23 (8-45)	0.625
Amyloid pattern				
Minimal, n (%)	3 (8)	3 (10)	0 (0)	0.213
Focal, n (%)	1 (3)	0 (0)	1 (13)	
Multifocal, n (%)	29 (78)	23 (79)	6 (75)	
Diffuse, n (%)	4 (11)	3 (10)	1 (13)	
Amyloid location				
Interstitial, n (%)	11 (30)	10 (35)	1 (13)	0.234
Interstitial and perivascular, n (%)	23 (62)	16 (55)	7 (88)	
Interstitial, perivascular, vascular, n (%)	3 (8)	3 (10)	0 (0)	
H score	9 (8-10)	9 (8-10)	10 (8-10)	0.378
Extent of fibrosis (%)	15 (10-23)	13 (10-28)	16 (6-23)	0.704
Extent of amyloidosis and fibrosis (%)	40 (30-49)	40 (23-49)	38 (32-53)	0.957
CD3+ (cells/mm ³)	6 (5-10)	6 (5-10)	8 (3-13)	0.926

CD68+ (cells/mm ³)	11 (7-16)	12 (8-15)	10 (7-18)	0.564
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AL, amyloid light chain amyloidosis; ATTR, amyloid transthyretin amyloidosis; ECV, extracellular volume; eGFR, estimated glomerular filtration rate; hs-TnT, high-sensitivity troponin T; IVS, interventricular septum; LGE, late gadolinium enhancement; LVEDVi, left ventricular end-diastolic volume index; LVEF, left ventricular ejection fraction; LVESVi, left ventricular end-systolic volume index; LVMI, left ventricular mass index; NT-proBNP, N-terminal fragment of pro-B-type natriuretic peptide; NYHA, New York Heart Association; PW, posterior wall thickness; RVEDVi, right ventricular end-diastolic volume index; RVEF, right ventricular ejection fraction; sST2, soluble suppression of tumorigenesis-2; SVi, stroke volume index; TAPSE, tricuspid annular plane systolic excursion; TTE, transthoracic echocardiography. (*) Myocardial T1, ECV, matrix volume and cell volume were available only in 20 subjects.

Table S2. Histological findings on left ventricle endomyocardial biopsies.

Patient n	Patient (M/W, age)	AL/ATTR	Amyloid (%)	Fibrosis (%)	Amyloid pattern	Amyloid location	CD3+ (cells/mm²)	CD68+ (cells/mm²)	H score
1	M, 67	ATTR	15	17	MF	I	5	12	8
2	M, 70	ATTR	10	30	MF	I+PV	8	13	9
3	M, 73	ATTR	10	10	MF	I	7	7	7
4	M, 75	AL	35	10	D	I+PV	39	21	12
5	M, 77	AL	30	5	MF	I+PV	9	7	10
6	M, 85	AL	20	30	MF	I+PV	10	15	12
7	M, 83	ATTR	50	20	MF	I+PV	5	6	9
8	M, 82	ATTR	10	12	MF	I+PV	25	8	9
9	M, 84	ATTR	5	40	MF	I	6	9	8
10	M, 75	ATTR	15	30	MF	I+PV	7	9	9
11	M, 69	AL	30	10	MF	I+PV+V	7	19	9
12	W, 77	ATTR	60	15	MF	I+PV	4	8	9
13	M, 72	AL	15	30	MF	I+PV+V	6	15	8
14	M, 60	AL	10	60	MF	I	41	38	12
15	M, 63	ATTR	5	30	M	I	6	11	7
16	M, 73	AL	30	10	MF	I	9	12	11
17	M, 67	AL	10	10	MF	I+V	3	15	8
18	M, 84	ATTR	10	20	MF	I+PV	9	12	9

19	W, 67	AL	30	5	MF	I	8	18	9
20	M, 83	AL	7	13	MF	I	6	8	7
21	M, 75	ATTR	50	5	D	I+PV	1	4	7
22	M, 51	ATTR	30	20	MF	I	7	13	10
23	M, 67	AL	30	18	MF	I+PV	8	7	10
24	M, 84	ATTR	50	15	MF	I+PV	2	7	8
25	M, 70	AL	35	7	MF	I	3	6	8
26	M, 64	AL	30	15	MF	I+PV	7	13	11
27	M, 80	ATTR	5	9	MF	M	5	10	6
28	W, 72	AL	7	10	F	I+PV	14	34	10
29	M, 69	AL	10	30	MF	I+PV	4	8	8
30	M, 75	ATTR	30	20	MF	I+PV	5	7	10
31	M, 83	ATTR	7	25	MF	I+PV	17	19	11
32	M, 70	AL	10	20	MF	I+PV	5	9	8
33	M, 77	AL	30	10	D	I+PV	10	5	8
34	M, 70	ATTR	40	10	D	I+PV	2	14	9
35	M, 67	AL	7	14	MF	I+PV+V	12	11	8
36	M, 74	AL	5	10	M	I	18	16	9
37	M, 86	ATTR	25	12	MF	I+V	5	9	8

AL, amyloid light-chain; ATTR, amyloid transthyretin; M, man; W, woman. Amyloid pattern: D, diffuse; F, focal; M, minimal; MF, multifocal.

Amyloid location: I, interstitial; PV, perivascular; V, vascular.

Table S3. Predictors of circulating biomarkers.

	hs-TnT			NT-proBNP			sST2		
	All	AL	ATTR	All	AL	ATTR	All	AL	ATTR
LGE score	0.006	0.044	0.373	<0.001	0.005	0.451	0.146	0.052	0.772
ECV	0.004	0.089	0.258	0.009	0.200	0.057	0.488	0.808	0.918
Amyloid %	0.005	0.047	0.736	0.044	0.091	0.471	0.093	0.142	0.982
Fibrosis %	0.199	0.267	0.771	0.975	0.985	0.103	0.135	0.453	0.560
Amyloid+fibrosis %	0.035	0.217	0.635	0.002	0.014	0.482	0.265	0.141	0.709
H score	0.337	0.731	0.777	0.054	0.524	0.569	0.954	0.758	0.913
CD3+	0.122	0.266	0.102	0.948	0.840	0.981	0.273	0.847	0.640
CD68+	0.719	0.638	0.477	0.215	0.755	0.712	0.707	0.770	0.273

p values from multivariable linear regression analyses are reported. The model includes left ventricular mass index and ejection fraction. All variables were ln-transformed. AL, amyloid light chain amyloidosis; ATTR, amyloid transthyretin amyloidosis; ECV, extracellular volume; hs-TnT, high-sensitivity troponin T; LGE, late gadolinium enhancement; NT-proBNP, N-terminal fraction of pro-B-type natriuretic peptide; sST2, soluble suppression of tumorigenesis-2.

Figure S1. Examples of pre-contrast (native) and post-contrast T1 maps and extracellular volume maps.

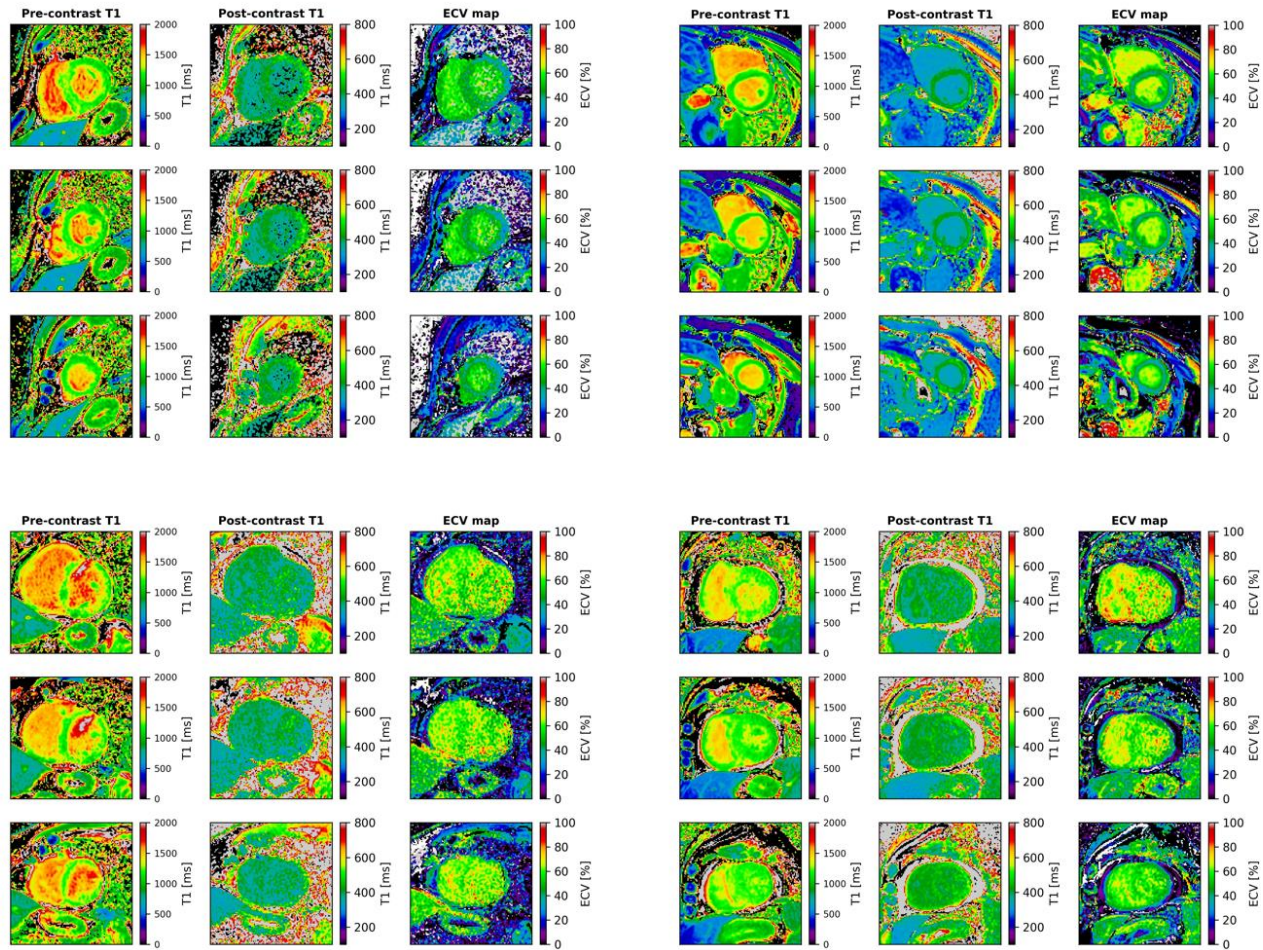


Figure S2. Endomyocardial biopsy showing diffuse immunoreactivity for lambda Ig light-chains (A) and negative immunostaining for kappa Ig light-chains (B) (Immunoperoxidase staining with hematoxylin counterstaining, original magnification 20x).

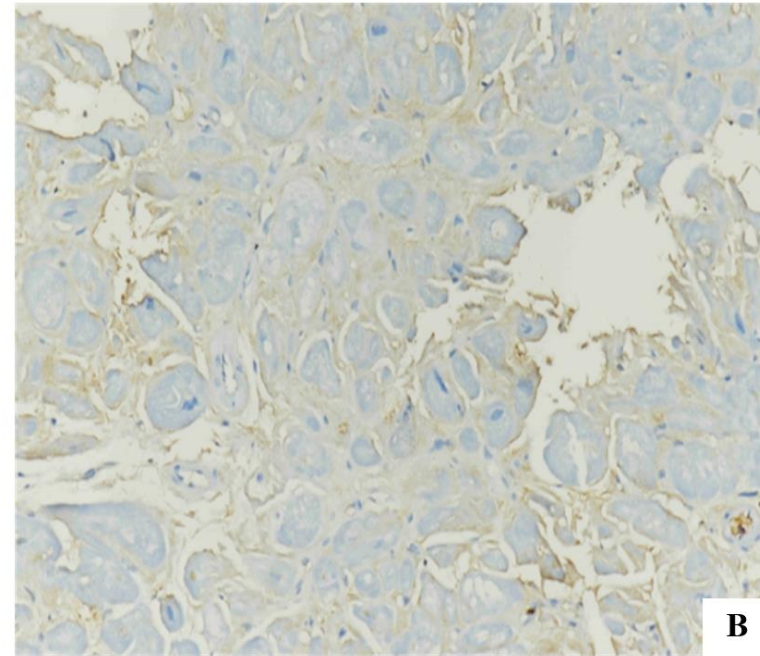
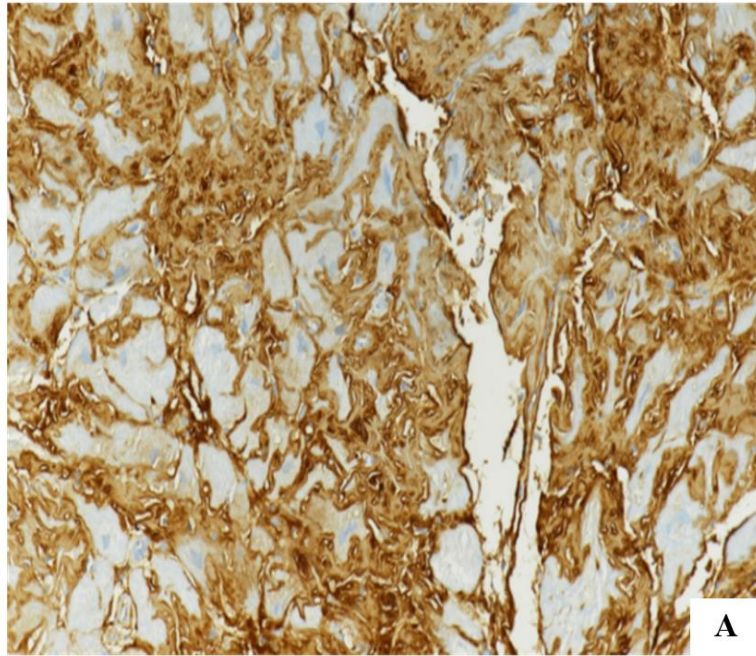
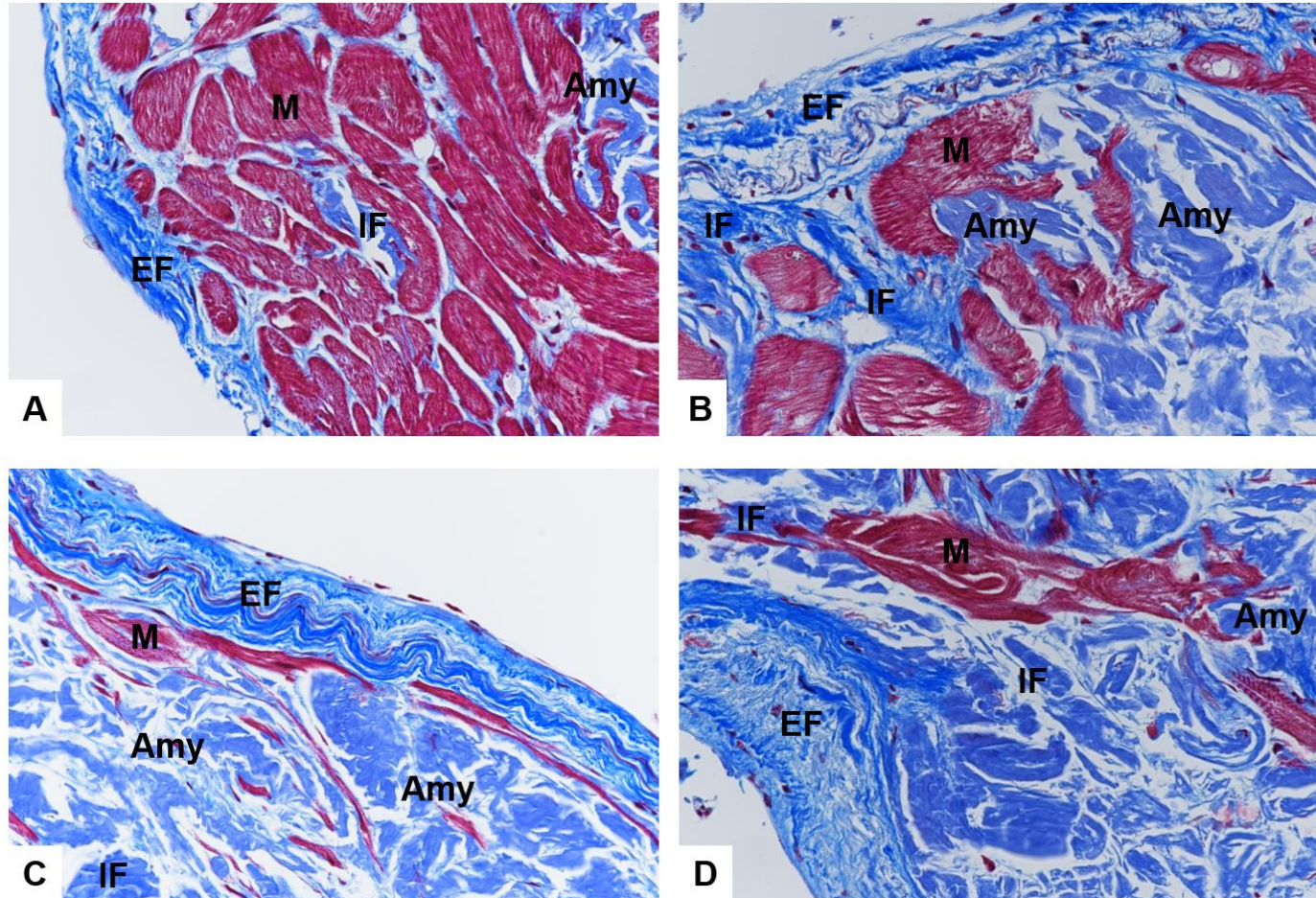


Figure S3. Focal (A) and mild (A-D) endocardial fibrosis (EF), associated with amyloid deposits (Amy) and interstitial fibrosis (IF) in a left ventricular endomyocardial biopsy.



Masson's trichrome staining, original magnification 40x.

Figure S4. Plurifocal interstitial CD3+ lymphocytes in lambda+ CA (A) versus very few and scattered CD3+ lymphocytes in a TTR+ CA (B)
(Immunoperoxidase staining with hematoxylin counterstaining, original magnification 40x).

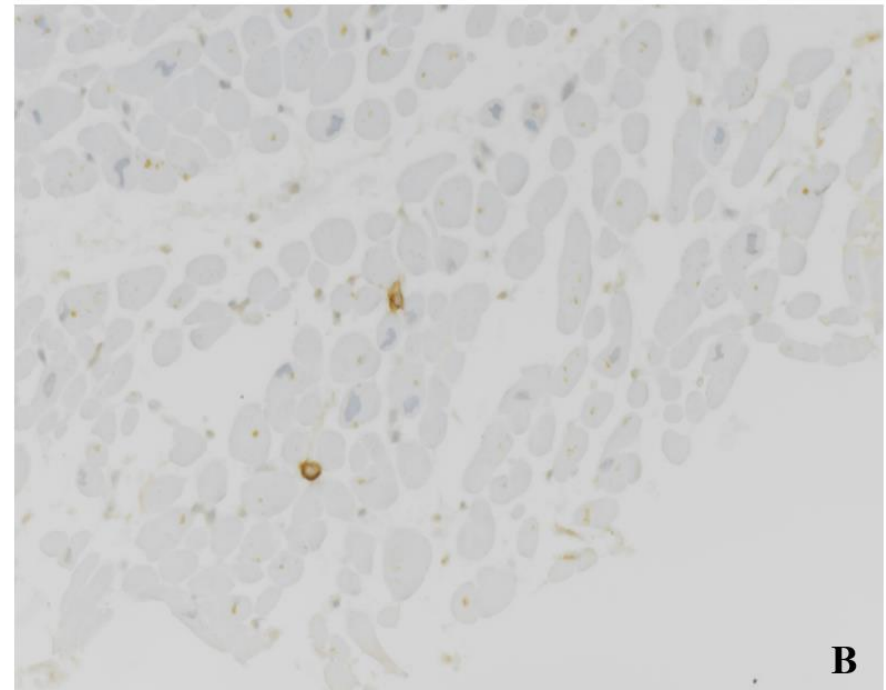
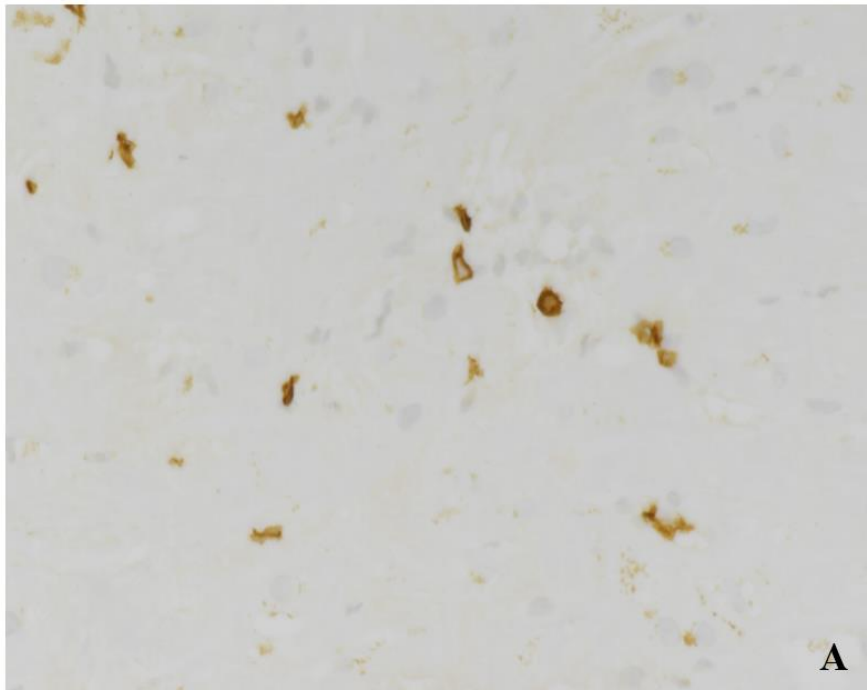
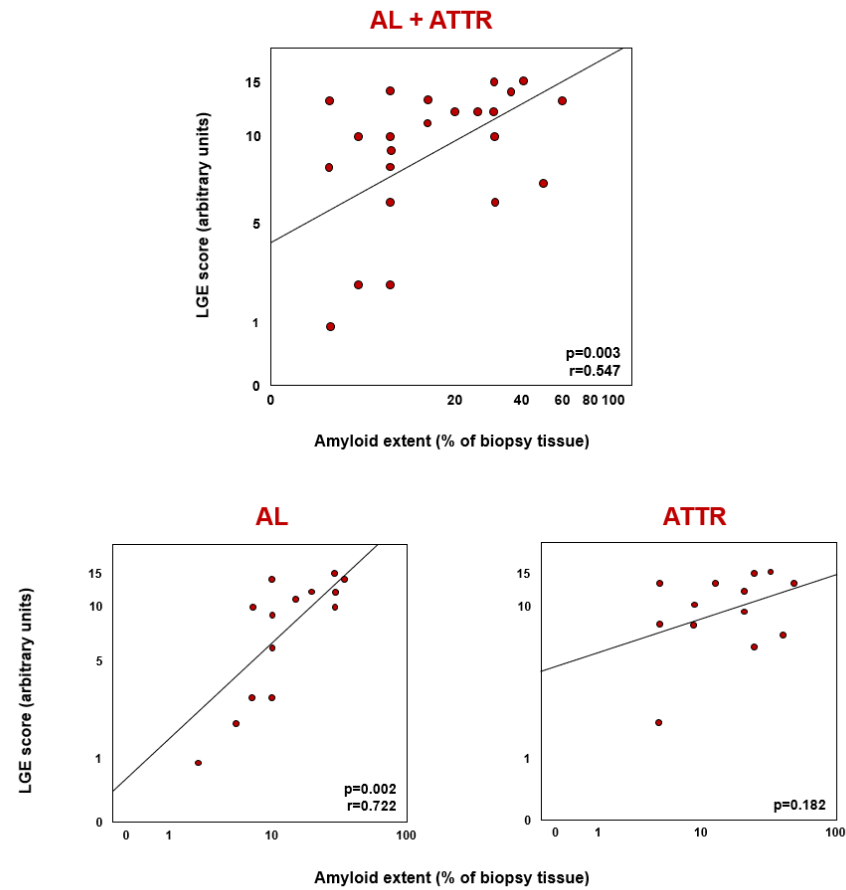
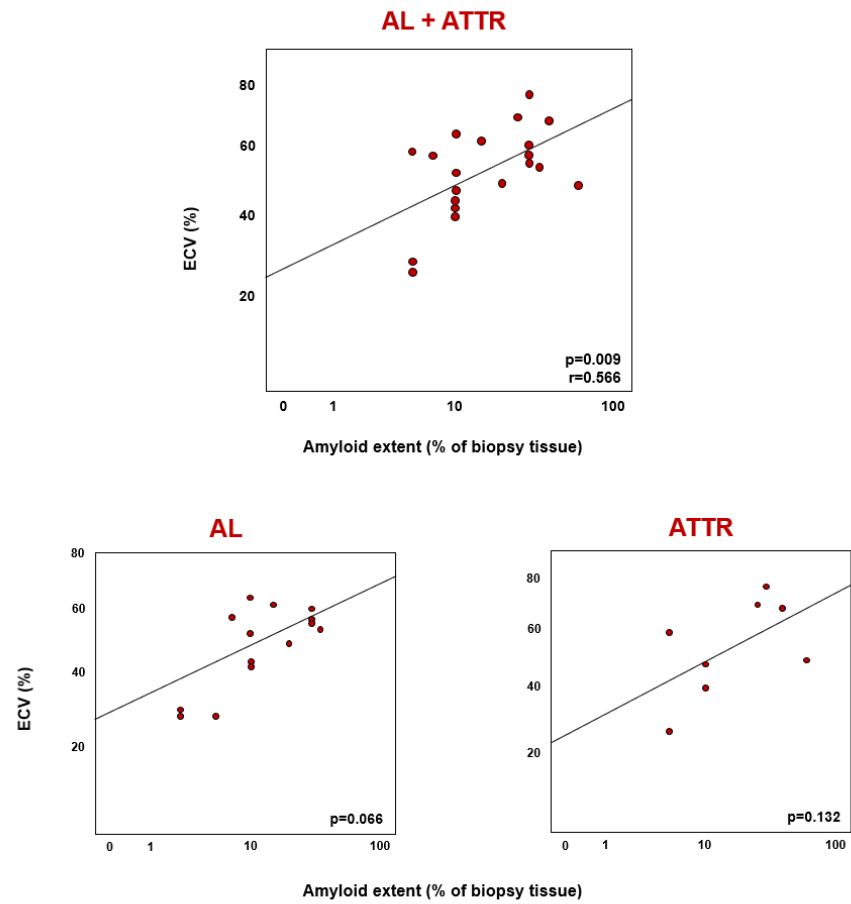


Figure S5. Correlations between the extent of amyloid deposits and late gadolinium enhancement (LGE) score.



AL, amyloid light chain amyloidosis; ATTR, amyloid transthyretin amyloidosis.

Figure S6. Correlations between the extent of amyloid deposits and extracellular volume (ECV).



AL, amyloid light chain amyloidosis; ATTR, amyloid transthyretin amyloidosis.