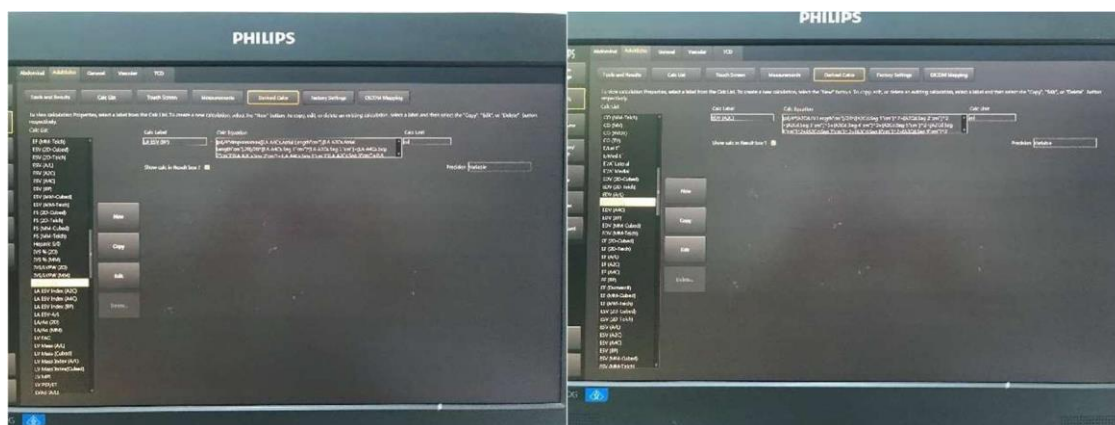


# Supplementary material of Correlation between Volumes Determined by Echocardiography and Cardiac MRI in Controls and Atrial Fibrillation Patients



**Figure S1.** Cardiac volume determination methods.

**Table S1.** Individual Left atrium volume (LA Vol) values measured by MRI and echocardiography and their difference of the echocardiography estimations (%) for the 63 AF patients and 36 healthy Controls.

Control No.	MRI LA Vol (mL)	Echo LA Vol (mL)	Absolute diff. (%)
1	81.04	45.60	77.72
2	73.75	59.30	24.37
3	82.97	63.84	29.97
4	100.68	87.76	14.72
5	126.15	145.47	13.28
6	62.64	66.91	6.38
7	118.13	132.82	11.06
8	176.76	137.59	28.47
9	104.58	168.47	37.92
10	164.96	159.95	3.13
11	197.29	174.36	13.15
Control No.	MRI LA Vol (mL)	Echo LA Vol (mL)	Absolute diff. (%)
12	124.6	105.72	17.86
13	98.46	109.18	9.82
14	99.22	157.25	36.90
15	63.04	88.86	29.06
16	98.72	125.81	21.53
17	101.86	110.94	8.18
18	98.58	105.80	6.82
19	81.05	84.57	4.16
20	110.04	112.18	1.91
21	80.23	104.77	23.42
22	128.06	127.01	0.83
23	114.94	89.56	28.34
24	162.10	131.90	22.90
25	77.41	79.13	2.17
26	112.53	143.25	21.45
27	63.95	86.21	25.82
28	98.09	144.09	31.92

29	146.62	131.95	11.12
30	49.89	62.43	20.09
31	93.37	76.25	22.45
32	124.92	88.17	41.68
33	91.41	104.41	12.45
34	117.79	113.82	3.49
35	194.02	123.64	56.92
36	97.84	110.27	11.27
37	87.45	80.26	8.96
38	126.1	95.07	32.64
39	100.21	122.82	18.41

Control No.	MRI LA Vol (mL)	Echo LA Vol (mL)	Absolute diff. (%)
40	86.42	70.13	23.23
41	108.60	140.85	22.90
42	89.98	86.4	4.14
43	114.58	92.05	24.48
44	98.60	97.02	1.63
45	95.59	76.33	25.23
46	156.4	153.09	2.16
47	64.75	60.85	6.41
48	111.17	117.69	5.54
49	44.37	66.92	33.70
50	79.07	83.79	5.63
51	109.36	147.00	25.61
52	169.42	159.5	6.22
53	147.13	85.33	72.42
54	99.86	118.94	16.04
55	73.46	71.31	3.02
56	96.47	136.06	29.10
57	69.51	82.24	15.48
58	130.64	141.33	7.56
59	66.41	81.14	18.15
60	116.29	90.13	29.02
61	114.21	94.09	21.38
62	158.57	115.21	37.64
63	21.00	88.43	76.25

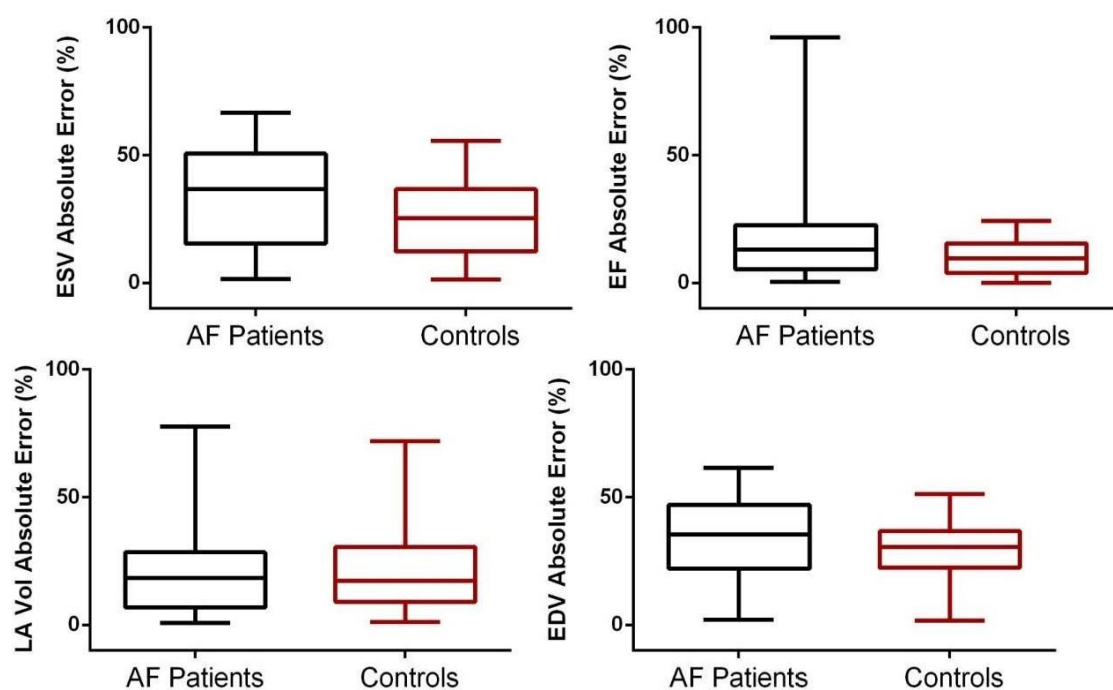
Control No.	MRI LA Vol (mL)	Echo LA Vol (mL)	Absolute diff. (%)
1	89.22	66.03	25.99
2	43.23	47.01	8.73
3	82.20	64.41	21.64
4	72.51	68.78	5.14
5	78.52	90.79	15.63
6	91.21	75.09	17.67
7	86.76	59.59	31.31
8	69.57	63.22	9.12
9	61.50	39.15	36.34
10	68.95	47.27	31.44
11	55.07	44.91	18.45
12	33.35	57.31	71.86
13	28.27	42.53	50.42
14	63.76	69.5	9.00
15	55.81	49.21	11.82
16	51.96	34.77	33.09
17	52.25	44.44	14.95
18	105.95	101.67	4.04

19	70.74	47.01	33.54
20	31.69	37.09	17.04
21	69.18	55.69	19.50
22	47.48	46.63	1.79
23	77.08	98.98	28.41
24	71.30	65.43	8.23
25	70.13	78.66	12.16
26	35.77	43.32	21.09
<b>Control No.</b>	<b>MRI LA Vol (mL)</b>	<b>Echo LA Vol (mL)</b>	<b>Absolute diff. (%)</b>
27	73.32	65.2	11.08
28	49.55	68.82	38.90
29	48.35	54.1	11.89
30	76.39	58.64	23.24
31	52.82	33.06	37.41
32	52.42	51.83	1.12
33	57.72	52.77	8.58
34	56.75	69.12	21.80
35	64.85	57.69	11.04
36	87.34	85.76	1.81

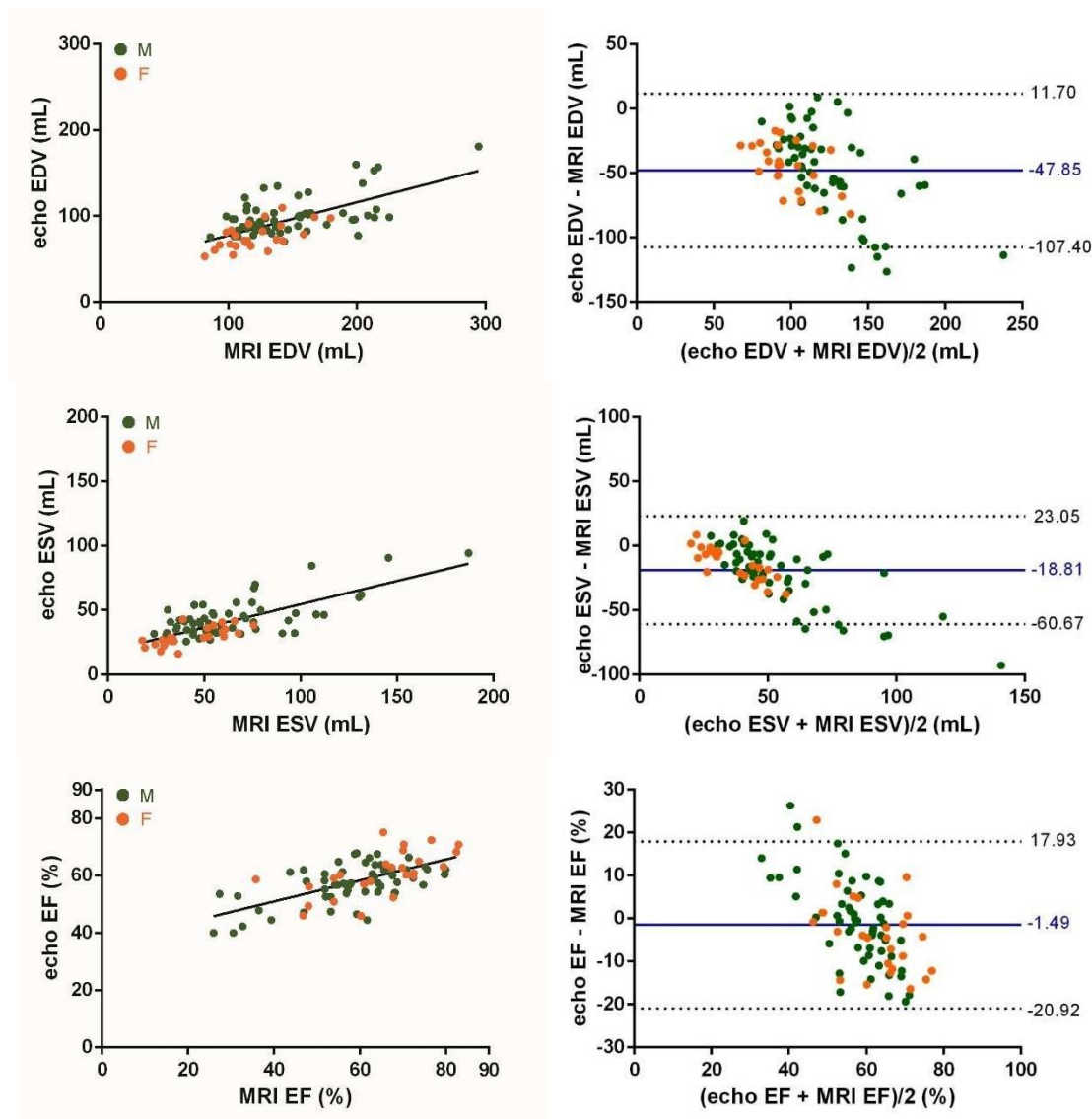
**Table S2.** Individual EF, ESV, and EDV values measured by MRI and echocardiography and their absolute difference (%) of the echocardiography estimation for the 51 AF patients and the 30 healthy controls.

Patient No.	MRI EF (%)	Echo EF (%)	Absolute diff. (%)	MRI ESV (mL)	Echo ESV (mL)	Absolute diff. (%)	MRI EDV (mL)	Echo EDV (mL)	Absolute diff. (%)
1	69.80	62.70	10.17	34.30	25.90	24.48	113.58	69.60	38.72
2	67.40	62.30	7.56	64.66	36.20	44.01	198.31	96.10	51.54
3	48.04	49.40	2.82	65.68	41.60	36.66	126.41	82.30	34.89
4	67.78	52.40	22.69	33.33	26.10	21.68	103.44	54.80	47.02
5	61.69	44.55	27.79	49.26	54.25	10.14	128.58	97.35	24.29
6	46.86	62.00	32.32	59.02	33.50	43.24	111.06	87.90	20.85
7	32.71	42.30	29.33	145.60	90.70	37.71	216.37	157.10	27.39
8	51.85	55.20	6.47	68.93	31.60	54.16	143.15	70.70	50.61
9	54.88	56.65	3.22	54.84	46.45	15.31	121.56	106.95	12.02
10	61.19	54.40	11.10	51.78	36.35	29.80	133.43	80.15	39.93
11	51.79	58.20	12.37	96.78	32.30	66.63	200.76	77.40	61.45
12	39.37	44.50	13.03	130.27	60.10	53.86	214.85	107.90	49.78
13	64.09	67.50	5.32	40.99	34.70	15.34	114.14	106.70	6.52
14	74.71	56.70	24.11	35.46	34.90	1.59	140.23	80.60	42.52
15	75.67	62.20	17.80	31.01	50.20	61.89	127.45	132.80	4.20
16	53.24	47.40	10.97	75.78	67.20	11.32	162.06	127.90	21.08
17	52.02	52.70	1.32	108.07	46.80	56.70	225.22	98.80	56.13
18	61.27	64.60	5.43	44.31	39.80	10.19	114.43	112.10	2.04
19	35.78	58.70	64.04	67.72	32.00	52.75	105.46	77.40	26.61
20	46.76	46.00	1.63	75.76	38.40	49.32	142.31	71.00	50.11
21	48.16	56.20	16.69	52.41	29.50	43.71	101.10	67.40	33.33
22	59.29	46.50	21.57	62.66	47.40	24.36	153.93	88.60	42.44
23	56.14	57.20	1.89	93.58	42.10	55.01	213.37	98.40	53.88
Patient No.	MRI EF (%)	Echo EF (%)	Absolute diff. (%)	MRI ESV (mL)	Echo ESV (mL)	Absolute diff. (%)	MRI EDV (mL)	Echo EDV (mL)	Absolute diff. (%)
24	73.71	65.00	11.82	24.47	23.40	4.39	93.11	66.70	28.36
25	53.94	50.90	5.64	60.12	29.65	50.68	130.52	59.15	54.68
26	67.35	62.90	6.61	29.06	22.40	22.91	89.00	60.30	32.25
27	58.76	67.50	14.88	47.37	28.00	40.89	114.84	86.20	24.94
28	43.73	61.20	39.96	90.55	32.00	64.66	160.91	82.40	48.79
29	31.60	52.90	67.41	70.53	45.50	35.49	103.12	96.70	6.22

30	36.45	47.90	31.41	187.16	94.40	49.56	294.51	181.00	38.54
31	79.47	63.10	20.60	28.17	26.90	4.52	137.23	72.90	46.88
32	57.13	54.80	4.07	75.63	40.80	46.05	176.40	90.10	48.92
33	30.50	40.00	31.13	131.44	62.10	52.75	189.14	103.60	45.23
34	55.40	60.20	8.67	51.60	36.30	29.65	115.69	91.20	21.17
35	62.49	58.00	7.19	59.42	33.10	44.30	158.42	78.80	50.26
36	47.53	58.00	22.02	76.74	35.40	53.87	146.27	84.30	42.37
37	55.04	64.80	17.73	52.53	33.50	36.23	116.84	95.20	18.52
38	64.85	56.30	13.19	47.67	41.30	13.36	135.63	94.50	30.33
39	62.87	60.60	3.61	50.84	34.60	31.94	136.91	87.70	35.95
40	54.19	56.70	4.64	71.57	43.60	39.08	156.21	100.80	35.47
41	53.22	52.60	1.17	97.42	47.80	50.94	208.26	100.90	51.55
42	66.06	64.00	3.12	60.88	35.20	42.18	179.38	97.80	45.48
43	25.92	40.00	54.35	79.29	50.00	36.94	107.02	83.30	22.16
44	56.85	53.85	5.28	66.56	56.10	15.71	154.25	124.15	19.51
45	51.81	60.60	16.96	54.30	47.90	11.78	112.69	121.60	7.91
46	60.25	45.90	23.82	32.38	28.70	11.37	81.46	53.10	34.82
47	75.16	63.00	16.18	30.14	30.80	2.19	121.33	83.40	31.26
48	46.95	47.20	0.54	105.75	84.60	20.00	199.33	160.20	19.63
49	27.33	53.60	96.10	112.17	46.40	58.63	154.36	100.10	35.15
50	72.48	59.90	17.36	32.26	26.40	18.18	117.24	65.90	43.79
51	70.80	60.30	14.83	33.47	28.30	15.45	114.61	71.30	37.79
ControlNo.	MRI EF (%)	Echo EF (%)	Absolute diff. (%)	MRI ESV (mL)	Echo ESV (mL)	Absolute diff. (%)	MRI EDV (mL)	Echo EDV (mL)	Absolute diff. (%)
1	70.83	62.00	12.47	47.89	39.50	17.51	164.15	103.80	36.77
2	64.93	63.80	1.75	54.56	35.60	34.76	155.61	98.40	36.76
3	63.37	59.50	6.11	74.84	56.10	25.04	204.31	138.40	32.26
4	79.72	60.40	24.23	32.51	40.90	25.82	160.26	103.30	35.54
5	76.64	72.40	5.53	27.38	18.00	34.27	117.23	65.20	44.38
6	79.93	62.10	22.31	23.94	31.70	32.40	119.31	77.90	34.71
7	63.05	60.10	4.68	44.13	31.10	29.53	119.44	89.90	24.73
8	68.14	54.00	20.76	39.85	41.40	3.89	125.09	89.90	28.13
9	57.63	56.70	1.62	44.26	33.90	23.40	104.46	76.40	26.86
10	65.67	61.80	5.89	35.92	37.10	3.29	104.62	96.70	7.57
11	64.30	57.40	10.73	30.65	32.40	5.73	85.83	75.90	11.57
12	59.29	67.80	14.35	52.90	27.10	48.77	129.95	84.10	35.28
13	53.91	59.10	9.62	59.21	40.80	31.10	128.48	99.80	22.33
14	63.53	63.80	0.43	59.04	36.90	37.50	161.88	101.80	37.11
15	70.24	70.90	0.95	49.67	28.80	42.01	166.86	98.90	40.73
16	64.15	54.30	15.36	76.41	70.00	8.39	213.18	153.20	28.14
17	60.90	57.00	6.41	54.97	38.20	30.51	140.61	88.80	36.85
18	82.48	68.30	17.20	17.87	26.50	48.25	102.05	83.70	17.98
19	55.90	61.30	9.66	56.97	32.80	42.42	129.18	84.60	34.51
20	70.08	68.80	1.82	29.40	25.30	13.96	98.26	81.10	17.46
21	67.57	60.00	11.21	44.78	54.00	20.59	138.09	135.00	2.24
22	83.00	70.80	14.70	19.11	20.90	9.36	112.41	71.70	36.22
23	71.38	66.30	7.12	56.21	32.40	42.36	196.43	95.90	51.18
24	65.49	75.10	14.67	36.45	16.20	55.55	105.62	65.10	38.36
25	62.17	66.20	6.48	40.56	25.80	36.39	107.22	76.40	28.75
26	72.52	60.80	16.16	38.96	43.10	10.64	141.75	109.90	22.47
27	68.65	57.70	15.95	50.08	43.60	12.94	159.77	103.10	35.47
28	56.83	56.90	0.13	42.39	43.00	1.43	98.20	99.90	1.74
29	57.92	57.40	0.89	52.34	39.90	23.76	124.37	93.60	24.74
30	72.37	59.20	18.19	37.37	42.40	13.45	135.24	103.90	23.17



**Figure S2.** The absolute error of the echocardiography estimation of LA Vol,EDV, ESV,and EF for AF Patients and Controls.



**Figure S3.** Distribution and Bland-Altman analysis results of the measured values based on participants' gender (orange-female, green-male).