

Supplementary table 3. Multivariable Model for the Association of Clinical, Biological and Hemodynamic Parameters with Estimated Plasma Volume Status (Hakim formula)

	Univariable model		Multivariable model	
	β (95%CI)	p-Value	β (95%CI)	p-Value
Clinical parameters				
Age, yrs (per 5 yrs)	1.81 (0.59 - 3.03)	0.004	—	—
Male sex	-3.01 (-8.21 - 2.20)	0.25		
Body mass index, kg/m ² (per 5 kg/m ²)	-6.07 (-7.75 - -4.38)	<0.001	-6.07 (-8.26 - -3.89)	<0.001
Hypertension	-0.34 (-5.54 - 4.85)	0.90		
Diabetes mellitus	0.90 (-5.10 - 6.90)	0.77		
Coronary artery disease	2.41 (-2.41 - 7.23)	0.32		
Heart failure	4.19 (-0.57 - 8.94)	0.08	—	—
NYHA III+IV	1.26 (-4.19 - 6.72)	0.65		
Diastolic BP, mmHg (per 5 mmHg)	-1.84 (-3.63 - -0.06)	0.043	-2.45 (-4.22 - -0.68)	0.008
Biological parameters				
Sodium, mmol/l (per 5 mmol/l)	-1.88 (-5.20 - 1.45)	0.26		
eGFR, ml/min/1.73m ² (per 5 ml/min/1.73m ²)	-0.16 (-0.75 - 0.43)	0.59		
Log NT proBNP	1.91 (-0.13 - 3.95)	0.07	—	—
Left ventricular function				
LVSV index, ml/m ² (per 5 ml/m ²)	0.27 (-0.14 - 0.68)	0.23		
LAV index, ml/m ² (per 5 ml/m ²)	0.75 (0.24 - 1.26)	0.005	—	—
LV ejection fraction, % (per 5%)	-0.10 (-0.64 - 0.63)	0.78		
LV ejection fraction <40%	4.15 (-0.90 - 9.20)	0.11		
Global longitudinal strain, %	0.02 (-0.21 - 0.25)	0.31		
E/A ratio	-0.02 (-2.86 - 2.85)	0.99		
E/e' mean	0.32 (0.06 - 0.59)	0.02	—	—
Right ventricular function				
TAPSE, mm	-0.25 (-0.68 - 0.18)	0.25		
RV IVA, m/sec	-0.11 (-2.37 - 2.16)	0.93		
IVC dimension, mm	0.10 (-0.32 - 0.52)	0.64		
estimated PAPS, mmHg (per 5 mmHg)	0.59 (-0.29 - 1.47)	0.18		
Others				
LVEDP, mmHg	0.05 (-0.27 - 0.37)	0.75		
Total B-Lines	0.15 (-0.10 - 0.39)	0.24		

NYHA, New York Heart Association; BP, diastolic blood pressure; eGFR, eGFR, estimated glomerular filtration rate; NT proBNP, N-terminal pro-B-type natriuretic peptide; LVSV, left ventricular stroke volume; LAV, left atrial volume; E/A ratio of peak early and late diastolic velocities; E/e', ratio of early mitral inflow velocity and mitral annular early diastolic velocity; RAV, right atrial volume; TAPSE, tricuspid annular plane systolic excursion; IVA, isovolumic acceleration; IVC, inferior vena cava; PAPS, pulmonary artery systolic pressure; LVEDP, left ventricular end-diastolic pressure.