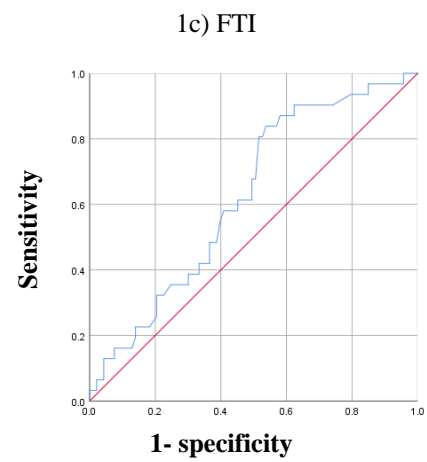
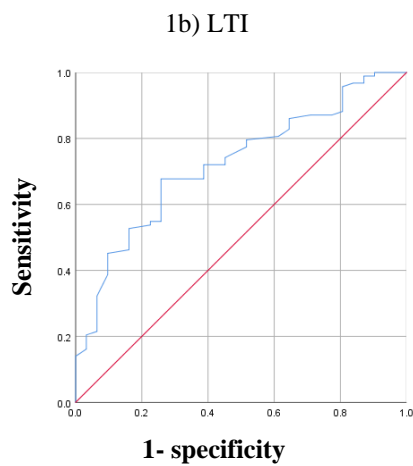
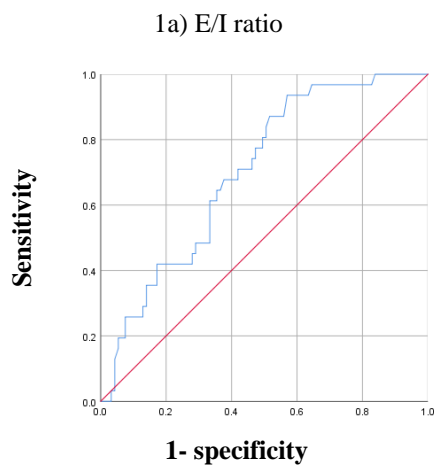


Supplementary Figure S1. ROC analysis of E/I ratio, LTI and FTI for patients of patent and non-patent group.



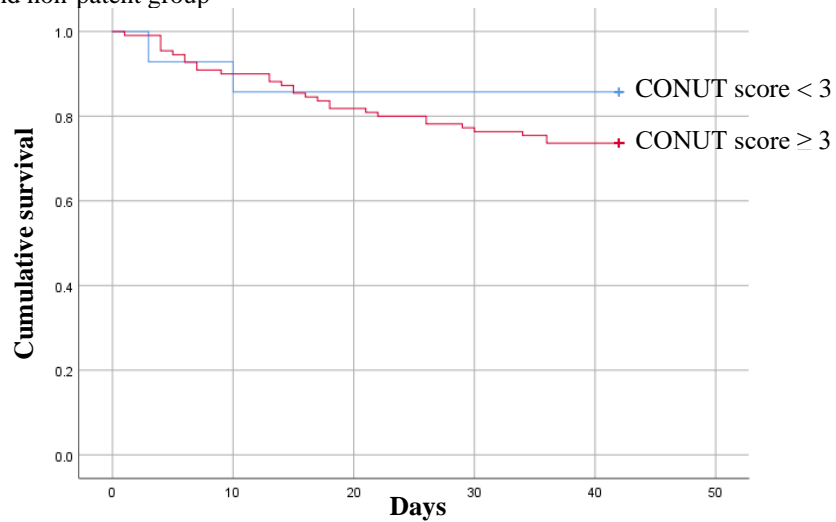
Supplementary Figure S2. Kaplan-Meier survival curve between groups with high CONUT score ( $\geq 3$ ) and low CONUS score ( $< 2$ )

2a) between patients of patent and non-patent group

n = 124

log-rank  $\chi^2 = 7.425$

p = 0.380

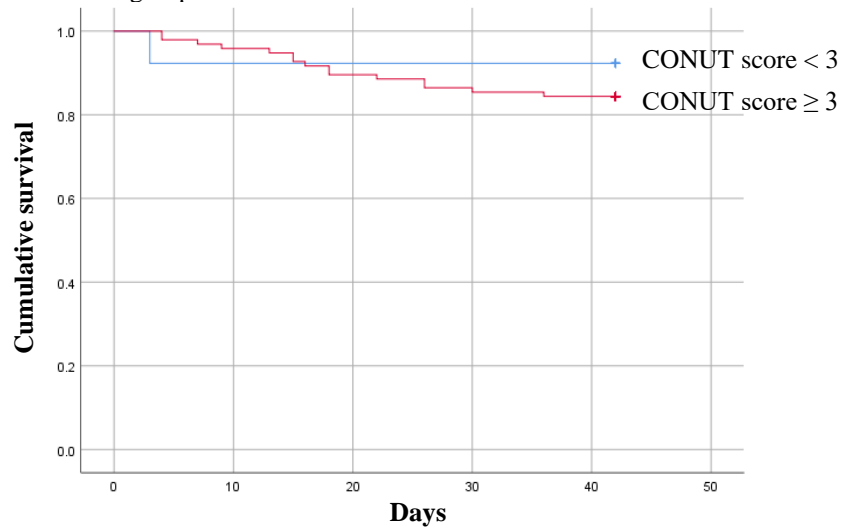


2b) between patients of patent and infection group

n = 124

log-rank  $\chi^2 = 7.425$

p = 0.486

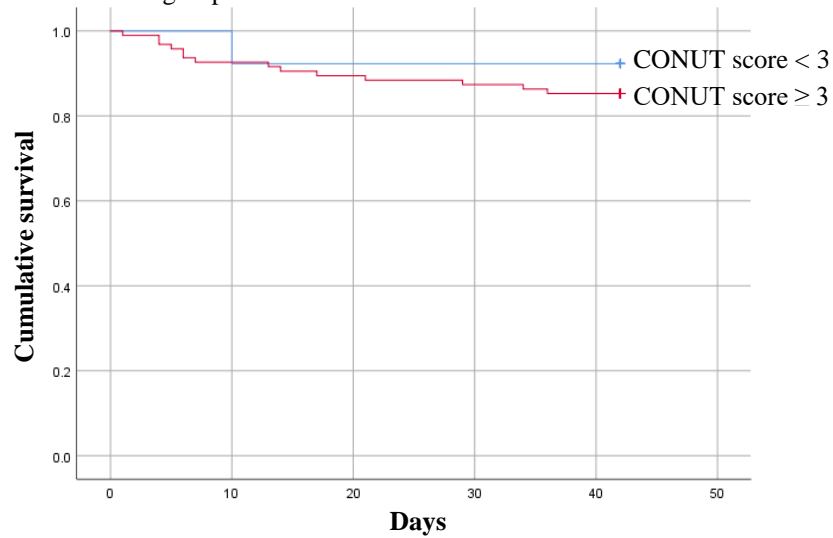


2c) between patients of patent and malfunction group

n = 124

log-rank  $\chi^2 = 7.425$

p = 0.135



Supplementary Table S1a. Baseline characteristics of the study participants with infection subgroup

Characteristics	Total (N=124)	Patent group (N=93)	Infection subgroup (N=16)	P value
<b>Age (median [range] years)</b>	72.0 [26–93]	69.0 [26–93]	72.5 [50-86]	0.293
<b>Sex [n (%)]</b>				
Men	68 (54.8)	54 (58.1)	7 (43.8%)	0.893
Women	56 (45.2)	39 (41.9)	9 (56.3%)	
<b>Comorbidities [n (%)]</b>				
Diabetes mellitus	89 (71.8)	69 (74.2)	11 (68.8%)	0.653
Hypertension	96 (77.4)	68 (73.1)	13 (81.3%)	0.496
Heart failure	41 (33.1)	31 (33.3)	6 (37.5%)	0.748
Ischemic heart disease	34 (27.4)	28 (30.1)	3 (15%)	0.357
Atrial fibrillation	24 (19.4)	15 (16.1)	5 (31.3%)	0.152
Cerebral infarction	19 (15.3)	10 (10.8)	7 (43.8%)	0.001
Liver cirrhosis	6 (4.8)	1 (1.1)	1 (6.3%)	0.157
<b>Medication [n (%)]</b>				
Aspirin	29 (23.4)	20 (21.5)	5 (31.3%)	0.396
Clopidogrel	33 (26.6)	24 (25.8)	7 (43.8%)	0.144
Warfarin	6 (4.8)	3 (3.2)	1 (6.3%)	0.557
Cilostazol	7 (5.6)	5 (5.4)	1 (6.3%)	0.889
NOAC	8 (6.5)	6 (6.5)	2 (12.5%)	0.396
Statin	61 (49.2)	46 (49.5)	8 (50%)	0.969
<b>Laboratory data (median [range])</b>				
Hemoglobin (g/dL)	9.6 [4.8–14.4]	9.5 [4.8–16.1]	9.7 [6.1-11.7]	0.722
Total lymphocyte count (10 <sup>3</sup> /μl)	1160.0 [240–11390]	1270.0 [240–11390]	1000.0 [400-2160]	0.352
Platelet (k)	189.0 [12–820]	191.0 [12–820]	126.0 [20-305]	0.023
CRP (mg/dL)	1.8 [0.1–40]	1.1 [0.1–40]	4.0 [0.3-40.0]	0.072
Total protein (g/dL)	6.1 [4.1–8.4]	6.1 [3.2–8.4]	5.9 [4.2-7.9]	0.598
Albumin (g/dL)	3.0 [1.6–4.4]	3.0 [1.5–4.4]	2.8 [1.9-3.7]	0.077
BUN (mg/dL)	54.3 [11.9–177.8]	53.0 [13.9–184]	56.6 [11.9-121.1]	0.837
Creatinine (mg/dL)	4.8 [0.7–31.4]	5.1 [0.7–32.9]	3.5 [0.9-9.2]	0.030
Total cholesterol (mg/dL)	127.0 [45–494]	126.0 [45–494]	119.5 [52-219]	0.274
Total Calcium (mg/dL)	7.7 [5.0–10.5]	7.7 [5.0–10.4]	7.7 [6.1-10.5]	0.563
Phosphorus (mg/dL)	4.2 [1.5–12.6]	4.1 [1.5–12.6]	4.0 [1.7-9.9]	0.473
Sodium (mEq/L)	136.5 [122–153.6]	136.6 [122–153]	136.5 [124-153.6]	0.986
Potassium (mEq/L)	4.3 [2.8–7.8]	4.3 [2.8–7.8]	3.9 [3.1-6.2]	0.367
BMI (kg/m <sup>2</sup> )	23.5 [15.1–41.9]	23.4 [15.1–41.9]	26.3 [16.0-37.8]	0.217
<b>Body composition (median [range])</b>				
ECW (L)	16.2 [8.4–32.5]	17.4 [8.4–32.5]	15.5 [11.5-27.4]	0.388
ICW (L)	15.3 [7.8–28.0]	15.8 [7.9–28.0]	12.8 [8.2-18.1]	0.012
TBW (L)	31.8 [16.3–56.4]	33.8 [16.3–56.4]	29.8 [19.7-45.4]	0.059
ECW/ICW (E/I ratio)	1.13 [0.62–1.90]	1.05 [0.62–1.89]	1.19 [0.87-1.78]	0.056
LTI (kg/m <sup>2</sup> )	11.6 [5.3–21.4]	12.4 [5.8–21.4]	9.1 [5.3-15.1]	0.003
FTI (kg/m <sup>2</sup> )	10.7 [0.9–29.8]	9.7 [0.9–29.0]	11.5 [5.1-29.8]	0.033
LTM (kg)	28.2 [2.0–59.3]	30.7 [2.0–59.3]	23.4 [13.8-39.8]	0.070
ATM (kg)	24.8 [2.3–66.9]	24.0 [2.3–64.5]	30.1 [2.8-66.9]	0.098
FAT (kg)	18.4 [1.7–49.2]	17.6 [1.7–47.4]	22.1 [9.6-49.2]	0.024
BCM	15.4 [2.3–36.1]	16.8 [2.3–36.1]	11.2 [4.1-22.7]	0.010
Dry weight (kg)	57.6 [33.5–99.7]	58.5 [33.5–99.7]	56.8 [37.2-90.9]	0.876

CRP: C-reactive protein, BUN : blood urea nitrogen, BMI : body mass index, ECW : extracellular water, ICW : intracellular water, TBW : total body water, LTI : lean tissue index, FTI : fat tissue index, LTM : lean tissue mass, ATM : adipose tissue mass, FAT : fat mass, BCM : body cell mass

Supplementary Table S1b. Baseline characteristics of the study participants with malfunction subgroup

Characteristics	Overall (N=124)	Patent group (N=93)	Malfunction subgroup (N=15)	P value
<b>Age (median [range] years)</b>	72.0 [26–93]	69.0 [26–93]	80.0 [59–92]	0.000
<b>Sex [n (%)]</b>				
Men	68 (54.8)	54 (58.1)	5 (33.3%)	0.075
Women	56 (45.2)	39 (41.9)	10 (66.7%)	
<b>Comorbidities [n (%)]</b>				
Diabetes mellitus	89 (71.8)	69 (74.2)	9 (60.0%)	0.259
Hypertension	96 (77.4)	68 (73.1)	15 (100%)	0.022
Heart failure	41 (33.1)	31 (33.3)	4 (26.7%)	0.613
Ischemic heart disease	34 (27.4)	28 (30.1)	3 (20.0%)	0.427
Atrial fibrillation	24 (19.4)	15 (16.1)	4 (26.7%)	0.324
Cerebral infarction	19 (15.3)	10 (10.8)	2 (13.3%)	0.770
Liver cirrhosis	6 (4.8)	1 (1.1)	4 (26.7%)	0.000
<b>Medication [n (%)]</b>				
Aspirin	29 (23.4)	20 (21.5)	4 (26.7%)	0.659
Clopidogrel	33 (26.6)	24 (25.8)	2 (13.3%)	0.299
Warfarin	6 (4.8)	3 (3.2)	2 (13.3%)	0.085
Cilostazol	7 (5.6)	5 (5.4)	1 (6.7%)	0.841
NOAC	8 (6.5)	6 (6.5)	0 (0%)	0.316
Statin	61 (49.2)	46 (49.5)	7 (46.7%)	0.843
<b>Laboratory data (median [range])</b>				
Hemoglobin (g/dL)	9.6 [4.8–14.4]	9.5 [4.8–16.1]	10.3 [6.5–13.0]	0.077
Total lymphocyte count ( $10^3/\mu\text{L}$ )	1160.0 [240–11390]	1270.0 [240–11390]	1000.0 [340–3220]	0.474
Platelet (000s)	189.0 [12–820]	191.0 [12–820]	244.0 [52–329]	0.592
CRP (mg/dL)	1.8 [0.1–40]	1.1 [0.1–40]	8.9 [0.1–29.1]	0.003
Total protein (g/dL)	6.1 [4.1–8.4]	6.1 [3.2–8.4]	5.9 [4.1–7.4]	0.416
Albumin (g/dL)	3.0 [1.6–4.4]	3.0 [1.5–4.4]	2.6 [1.6–3.8]	0.029
BUN (mg/dL)	54.3 [11.9–177.8]	53.0 [13.9–184]	54.9 [30.9–143.4]	0.915
Creatinine (mg/dL)	4.8 [0.7–31.4]	5.1 [0.7–32.9]	5.1 [1.2–11.7]	0.246
Total cholesterol (mg/dL)	127.0 [45–494]	126.0 [45–494]	168.0 [59–290]	0.429
Total calcium (mg/dL)	7.7 [5.0–10.5]	7.7 [5.0–10.4]	7.9 [5.3–9.3]	0.356
Phosphorus (mg/dL)	4.2 [1.5–12.6]	4.1 [1.5–12.6]	4.8 [2.1–9.3]	0.968
Sodium (mEq/L)	136.5 [122–153.6]	136.6 [122–153]	136.4 [131.0–150.4]	0.240
Potassium (mEq/L)	4.3 [2.8–7.8]	4.3 [2.8–7.8]	4.4 [2.8–6.0]	0.329
BMI ( $\text{kg}/\text{m}^2$ )	23.5 [15.1–41.9]	23.4 [15.1–41.9]	23.3 [18.1–39.2]	0.845
<b>Body composition (median [range])</b>				
ECW (L)	16.2 [8.4–32.5]	17.4 [8.4–32.5]	13.9 [10.3–30.7]	0.622
ICW (L)	15.3 [7.8–28.0]	15.8 [7.9–28.0]	11.4 [7.8–22.2]	0.004
TBW (L)	31.8 [16.3–56.4]	33.8 [16.3–56.4]	27.0 [20.3–52.9]	0.064
ECW/ICW ratio	1.13 [0.62–1.90]	1.05 [0.62–1.89]	1.25 [1.00–1.60]	0.003
LTI ( $\text{kg}/\text{m}^2$ )	11.6 [5.3–21.4]	12.4 [5.8–21.4]	10.2 [5.7–16.4]	0.010
FTI ( $\text{kg}/\text{m}^2$ )	10.7 [0.9–29.8]	9.7 [0.9–29.0]	11.1 [2.1–20.6]	0.368
LTM (kg)	28.2 [2.0–59.3]	30.7 [2.0–59.3]	22.9 [12.5–51.3]	0.071
ATM (kg)	24.8 [2.3–66.9]	24.0 [2.3–64.5]	26.2 [2.4–56.2]	0.890
FAT (kg)	18.4 [1.7–49.2]	17.6 [1.7–47.4]	20.8 [4.9–41.3]	0.455
Body cell mass	15.4 [2.3–36.1]	16.8 [2.3–36.1]	11.7 [4.3–29.6]	0.016
Dry weight (kg)	57.6 [33.5–99.7]	58.5 [33.5–99.7]	51.9 [44.8–74.0]	0.084

CRP: C-reactive protein, BUN : blood urea nitrogen, BMI : body mass index, ECW : extracellular water, ICW : intracellular water, TBW : total body water, LTI : lean tissue index, FTI : fat tissue index, LTM : lean tissue mass, ATM : adipose tissue mass, FAT : fat mass, BCM : body cell mass

Supplementary Table S2. Univariate Cox proportional hazards analysis in non-patent group

	Hazard ratio	95% CI of difference		P value
		Lower	Upper	
Sex	0.630	0.311	1.278	0.201
Age	1.050	1.017	1.084	0.003
DM	0.671	0.322	1.402	0.289
HTN	2.950	0.897	9.750	0.075
BMI	1.037	0.969	1.109	0.295
ECW	0.962	0.888	1.042	0.344
ICW	0.832	0.749	0.925	0.001
TBW	0.941	0.897	0.988	0.014
E/I ratio	6.016	1.895	19.094	0.002
LTI	0.797	0.701	0.906	0.001
FTI	1.056	1.002	1.113	0.041
LTM	0.966	0.939	0.994	0.018
ATM	1.015	0.992	1.039	0.205
FAT	1.032	1.001	1.065	0.044
BCM	0.911	0.860	0.965	0.001
Hemoglobin	1.159	0.947	1.419	0.152
Total lymphocyte count	1.000	0.999	1.000	0.214
Platelet	0.998	0.995	1.001	0.252
CRP	1.047	1.017	1.078	0.002
Total protein	0.854	0.567	1.287	0.451
Albumin	0.431	0.220	0.842	0.014
BUN	1.000	0.989	1.011	0.969
Creatinine	0.849	0.735	0.981	0.026
Total cholesterol	0.999	0.994	1.004	0.776
Total calcium	1.223	0.863	1.733	0.257
Phosphorus	0.954	0.798	1.142	0.608
Sodium	1.031	0.956	1.112	0.434
Potassium	1.010	0.681	1.498	0.959