1530

Coronary Artery Disease, Acute Coronary Syndromes, Acute Cardiac Care –
Acute Cardiac Care, Cardiac Care Unit (CCU), Intensive, and Critical Cardiovascular Care

Frailty assessment in an unselected population admitted to an intensive cardiac care unit

A. Campanile[1], C. Procaccini[1], F. Dell' Aquila[1], M. Tedeschi[2], A. Rispoli[2], R. Sorrentino[1], A. Ravera[1]

[1]AOU S. Giovanni di Dio e Ruggi d'Aragona, Salerno, Italy; [2]University of Salerno School of Medicine, Cardiology, Salerno, Italy

Background: Although interest in frailty has expanded among cardiology experts over the past 2 decades, its integration, as part of cardiovascular disease management, is still lacking, above all in the acute cardiac care setting. The Clinical Frailty Scale (CFS) is a brief guided tool to assess frailty in hospital settings without specialist equipment.
Purpose: Our objective was to test the performance of the CFS in an older, unselected population, admitted to an Intensive Cardiac Care Unit (ICCU) during the year 2019.
Methods: The study sample included 431 patients ≥65 years old, admitted to an ICCU of a tertiary cardiac center in Italy. The CFS ranged from "very fit: 1" to "terminally ill: 9", but it was considered present at a score ≥5. Our primary endpoint was defined by a combination of severe complications requiring critical care and in-hospital death. The data were collected from the hospital discharge summary and the electronic chart records.
Results: 158 patients (36.7%) were frail. These individuals had greater co-morbidity and higher in-hospital mortality (Table 1). After a multivariable logistic regression analysis, 4 predictors were identified: signs of congestive heart failure (OR: 8.51, 95% Confidence Interval-CI: 4.63–14.6; p<0,001), systolic blood pressure (OR per 1 mmHg increasing: 0.98, 95% CI: 0.97–0.99; p<0,001), smoking habit (OR: 0.49, 95% CI: 0.22–1.11; p=0.09) and the CFS ≥5 (OR: 1.86, 95% CI: 1.08–3.23: p=0,026).
Conclusions: The CFS is a simple guided frailty tool that may enhance outcome prediction in the acute cardiac care setting. These findings merit evaluation in larger cohorts of unselected patients.

Table 1. Descriptive statistics stratified to Frailty status

Variables	All patients (n=431)	Not frail (CFS 1–4; n=273)	Frail (CFS 5–9; n=158)	p-value
Female gender, N (%)	181 (42)	97 (35.5)	84 (53.2)	< 0.001
Age (mean ± SD)	77.9 ± 7.6	75.8 ± 6.8	82.5 ± 7.2	< 0.001
Admission diagnoses:				< 0.001
ACS, N (%)	234 (54.3)	172 (63)	62 (39.2)	
AHF, N (%)	30 (7)	13 (4.8)	17 (10.8)	
Non-ACS/AHF, N (%)	167 (38.7)	88 (32.2)	79 (50)	
Diabetes not requiring Insulin, N (%)	85 (19.7)	55 (20.1)	33 (19)	0,771
Diabetes requiring insuline, N (%)	58 (13.5)	28 (10.3)	30 (19)	0,01
Hypertension, N (%)	373 (86.5)	238 (87.2)	135 (85.4)	0.61
Familiar history of coronary heart disease, N (%)	58 (13.5)	43 (15.8)	15 (9.5)	0.07
Hyperlipidaemia, N (%)	247 (57.3)	165 (60.4)	82 (51.9)	0.08
Smoking, N (%)	81 (18.8)	69 (25.3)	12 (7.6)	< 0.001
Coronary artery disease, N (%)	148 (34.3)	86 (31.5)	62 (39.2)	0,103
Previous stroke, N (%)	37 (8.6)	19 (7)	18 (11.4)	0.113
Atrial fibrillation, N (%)	104 (24.1)	47 (17.2)	57 (36.1)	< 0.001
Chronic obstructive pulmonary disease, N (%)	96 (22.3)	52 (19)	44 (27.8)	0.03
Anaemia, N (%)	58 (13.5)	25 (9.2)	33 (20.9)	0.001
Chronic kidney disease not requiring dialysis, N (%)	223 (51.7)	110 (40.3)	113 (71.5)	< 0.001
Chronic kidney disease requiring dialysis, N (%)	9 (2.1)	1 (0.4)	8 (5.1)	0.001
Peripheral artery disease, N (%)	104 (24.1)	63 (23.1)	41 (25.9)	0.502
Malignancy, N (%)	55 (12.8)	33 (12.1)	22 (13.9)	0.582
Neurological and/or psychiatric disorders, N (%)	70 (16.2)	24 (8.8)	46 (29.1)	< 0.001
Charlson Comorbidity Index (CCI; mean ± SD)	5.8 ± 2.3	5.1 ± 1.9	7.4 ± 2.4	< 0.001
Signs of congestive heart failure, N (%)	139 (33.3)	68 (25.5)	71 (47.3)	< 0.001
Systolic blood pressure at the admission (mmHg); mean ± SD	134.5 ± 28.7	137.7 ± 26.6	128.5 ± 30.7	0.001
Heart rate at the admission (bpm); mean ± SD	77.8 ± 22.9	77.7 ± 22.7	76.5 ± 24.5	0.613
Ejection fraction at admission (%); mean ± SD	46.2 ± 11.4	47.2 ± 11.1	44.3 ± 11.4	0.01
Creatinine at the admission (mg/dl); mean ± SD	1.47 ± 1.16	1.26 ± 0.76	1.81 ± 1.36	< 0.001
Haemoglobin at the admission (g/dl); mean ± SD	12.6 ± 2.2	13.05 ± 2.05	11.54 ± 2.05	< 0.001
In-Hospital Mortality, N (%)	52 (12.1)	16 (5.9)	36 (22.8)	< 0.001