soho2023
ELEVENTH ANNUAL MEETING

Comprehensive Geriatric Assessment and Clinical Outcomes of Acute Myeloid Leukemia Patients in a Latin American University Hospital

AML-591

Cristian Porras[1], Miguel Cadena[1,2], Miguel Ochoa[1], Ángela Peña[2,3], Luis Salazar[1,3], Manuel Rosales[1,3], María Luna-González[1,3], Claudia Sossa[1,2]

[1] Universidad Autónoma de Bucaramanga, Floridablanca, Colombia; [2] Clínica FOSCAL, Floridablanca, Colombia; [3] Programa para el Tratamiento de Enfermedades Hemato-Oncológicas de Santander, Floridablanca, Colombia

INTRODUCTION

In patients with acute myeloid leukemia (AML), comprehensive geriatric assessment (CGA) has been shown to provide valuable information for selecting the most appropriate chemotherapy regimen. In Latin America and Colombia, there are no studies evaluating the possible associations of CGA with outcomes in patients with AML (1).

AIM

To evaluate the association between CGA and clinical outcomes in patients with AML in a university hospital in Colombia.

METHOD

Retrospective cohort study, conducted between 2013 to 2021, aimed to assess the impact of CGA on clinical outcomes in elderly AML patients. The main outcome measures evaluated were overall survival (OS), event-free survival (EFS), toxicity, and complete remission (CR) after induction chemotherapy. The follow-up period for all patients was at least one year after AML diagnosis.

CONCLUSION

Frailty or pre-frailty according to the Frail scale in elderly AML patients was associated with a shorter OS at one year. This is the first analytical observational study in the literature to describe a statistically significant association between the Frail score and OS in elderly patients with a diagnosis of AML.

RESULTS

Seventy-seven patients 60+ were included. The median age was 71 years (IQR:64–79), 53.2% were men, and 55.8% (n = 43) had ECOG < 2 (Table 1).

Table 1. Demographic and Clinical Characteristics **of** AML Elderly Patients

Feature	n = 77 (100%)
Age	
60-69	31 (40.25)
70-79	29 (37.66)
≥ 80	17 (22.07)
Male gender	41 (53.24)
Occupation (n=60)*	
Household	20 (33.33)
Salaried	16 (26.66)
Retired	15 (25)
Self-Employed	5 (8.33)
Unemployed	4 (6.66)
BMI (n = 52) †	
<18.5	2 (3.84)
18.5-24.9	31 (59.61)
25-29.9	14 (26.92)
≥ 30	5 (9.61)
ECOG	
0	7 (9.09)
1	36 (46.75)
2	18 (23.37)
3	14 (18.18)
4	2 (2.59)
Comorbidities	44 (57.14)
Heart disease	11 (14.28)
Neuropathy	8 (10.38)
Nephropathy	7 (9.09)
Pneumopathy	5 (6.49)
Hepatopathy	1 (1.29)
Other comorbidity	12 (15.58)
Previous neoplastic disease ‡	25 (32.46)
Myelodysplastic Syndrome	6 (24)
Prostate Cancer	3 (12)
Diffuse large B- cell lymphoma	2 (8)
Other type of neoplasm	14 (56)

Table 2. Scores on CGA scales according to therapeutic approach

Scale	Total	Treatment		
		Intensive chemotherapy	Non-intensive chemotherapy	Best Supportive Care/Untreated/Oral
	n=77 (100%)	n=33 (100%)	n=25 (100%)	n=19 (100%)
Barthel				
Independent	21 (27.27)	11 (33.33)	7 (28.00)	3 (15.79)
Mild dependence	41 (53.24)	19 (57.58)	13 (52.00)	9 (47.37)
Moderate dependency	11 (14.28)	1 (3.03)	4 (16.00)	6 (31.58)
Severe dependency	1 (1.29)	1 (3.03)	-	-
Total dependency	3 (3.89)	1 (3.03)	1 (4.00)	1 (5.26)
Lawton y Brody				
Autonomous	18 (23.37)	8 (24.24)	9 (36.00)	1 (5.26)
Mild dependence	40 (51.94)	19 (57.58)	3 (12.00)	10 (52.63)
Moderate dependency	11 (14.28)	3 (9.09)	1 (4.00)	5 (26.32)
Severe dependency	3 (3.89)	1 (3.03)	1 (4.00)	1 (5.26)
Total dependency	5 (6.49)	2 (6.06)	1 (4.00)	2(10.53)
SPPB				
< 9	41 (53.24)	14 (42.42)	14 (56)	13 (68.42)
≥ 9	29 (37.66)	16 (48.48)	10 (40)	3 (15.78)
Sin dato	7 (9.09)	3 (9.09)	1 (4)	3 (15.78)
FRAIL				
Robust	10 (12.98)	8 (21.24)	2 (8.00)	-
Pre- fragile	42 (54.54)	21 (63.64)	12 (48.00)	9 (47.37)
Fragile	25 (32.46)	4 (12.12)	11 (44.00)	10 (52.63)
CFS				
Very Fit	1 (1.29)	1 (3.03)	-	-
Well	12 (15.58)	8 (24.24)	3 (12)	1 (5.26)
Managing Well	11 (14.28)	7 (21.21)	4 (16)	-
Vulnerable	6 (7.79)	3 (9.09)	2 (7.69)	1 (5.26)
Mildly Frail	3 (3.89)	-	1 (4)	2 (10.52)
Moderately Frail	1 (1.29)	1 (3.03)	-	-
Severely Frail	6 (7.79)	-	3 (12)	3 (15.78)
Very Severely Frail	4 (5.19)	-	3 (12)	1 (5.26)
No data	33 (42.85)	13 (39.39)	9 (36)	11 (57.89)
SARC-F				
No sarcopenia	60 (77.92)	29 (87.87)	18 (72)	13 (68.42)
Suggests sarcopenia	15 (19.48)	3 (9.09)	7 (28)	5 (26.31)
No data	2 (2.59)	1 (3.03)	-	1 (5.26)
MNA SF				
Normal nutritional status	47 (61.03)	25 (75.76)	11 (44)	11 (57.89)
Risk of malnutrition	16 (20.77)	3 (9.09)	8 (32)	5 (26.32)
Malnutrition	14 (18.18)	5 (15.15)	6 (24)	3 (15.79)
MMSE				
Normal	32 (41.55)	22 (66.66)	7 (29.16)	3 (15.78)
Mild deficit	34 (44.15)	8 (24.24)	15 (62.50)	11 (57.89)
Cognitive impairment	6 (7.79)	2 (6.06)	2 (8.33)	2 (10.52)
No data	5 (6.49)	1 (3.03)	1 (4.16)	4 (21.05)
MOCA				
Normal	15 (19.48)	6 (18.18)	7 (19.16)	2 (10.52)
Anormal	1 (1.29)	1 (3.03)	-	-
No data	61 (79.22)	26 (78.78)	17 (70.83)	17 (89.47)
CAM				
With delirium	75 (97.40)	1 (3.03)	1 (4)	-
Without delirium	2 (2.59)	32 (96.97)	24 (96)	19 (100)
Yesavage				
Normal	72 (93.50)	32 (96.96)	22 (91.66)	18 (94.73)
Moderate depression	1 (1.29)	-	1 (4.16)	-
Severe depression	2 (2.59)	1 (3.03)	1 (4.16)	-
No data	2 (2.59)	-	-	1 (5.26)

Table 3. Association of CGA scales with overall survival

Comprehensive Geriatric Assessment Scales	Hazard ratio for overall survival (95% CI)	*P*
Barthel	1.1 (0.78-1.55)	0.17
Lawton y Brody	0.9 (0.73-1.16)	0.49
SPPB	0.9 (0.53-1.77)	0.93
FRAIL	**1.6 (1.05-2.55)**	**0.02***
SARC F	1.46 (0.74-2.86)	0.26
CARG	1.4 (0.53-3.82)	0.46
MNA SF	0.86 (0.60-1.21)	0.38
MMSE	1.1 (0.63-1.96)	0.09
CAM	0.3 (0.03-2.34)	0.25
Yesavage	0.8 (0.35-2.03)	0.9

Table 4. Association of CGA scales with CR after induction

Comprehensive Geriatric Assessment Scales	Relative risk for complete remission after induction (95% CI)	*P*
Barthel		
Mild dependence	0.48 (0.22-1.03)	0.06
Moderate dependency	0.4 (0.06-2.45)	0.32
Severe dependency	-	-
Total dependency	0.74 (0.23-4.30)	1
Lawton y Brody		
Mild dependence	0.44 (0.20-0.96)	0.04*
Moderate dependency	0.26 (0.04-1.74)	0.17
Severe dependency	-	-
Total dependency	-	-
SPPB		
<9	0.71 (0.33-1.54)	0.39
FRAIL		
Pre-fragile	0.72 (0.33-1.56)	0.41
Fragile	0.37 (0.11-1.23)	0.1
SARC F		
Suggests sarcopenia	1.52 (0.69-3.33)	0.29
CARG		
Medium risk of severe toxicity	2.22 (0.36-13.37)	0.38
High risk of severe toxicity	1 (0.09-11.01)	1
MNA SF		
Risk of malnutrition	1 (0.39-2.51)	1
Malnutrition	1.09 (0.44-2.70)	0.85
MMSE		
Mild deficit	0.65 (0.28-1.51)	0.32
Cognitive impairment	0.65 (0.11-3.82)	0.64
CAM		
Delirium	1.5 (0.35-6.29)	0.57
Yesavage		
Moderate depression	-	-
Severe depression	1.44 (0.34-6.06)	0.61

REFERENCES

1. Loh KP, Klepin HD. Geriatric Assessment in Older Patients with Acute Myeloid Leukemia. Cancers (Basel). 2018;10(7):225.

CONTACT

Claudia Sossa Melo, MD
claudiasossa@gmail.com