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ELEVENTH ANNUAL MEETING

Factors Associated with Survival in Secondary Acute Myeloid Leukemia in Colombia

AML-581

Claudia Sossa[1,2,15], Virginia Abello[3,15], Luis Salazar[1,2,15], Ángela Peña[1,4,15], Henry Idrobo[5,15], Jheremy Reyes[6,15], William Mantilla[7,15], Guillermo Quintero[8,15], Rigoberto Gomez[9,15], Kenny Galvez[10,15], Mario Correa[11,15], Paola Guerrero[12,15], Lina Gaviria[13,15], Carlos Bermudez[14,15], Diana Cuervo[3,15], Pau Montesinos[16], Miguel Sanz[16]

[1]Clínica FOSCAL, Floridablanca, Colombia; [2]Universidad Autónoma de Bucaramanga, Floridablanca, Colombia; [3]Hospital San José, Bogotá, Colombia; [4]Programa para el Tratamiento de Enfermedades Hemato-Oncológicas de Santander, Floridablanca, Colombia; [5]Centro Médico Julián Coronel, Cali, Colombia; [6]Clínica Los Nogales, Bogotá, Colombia; [7]Fundación Cardioinfantil, Bogotá, Colombia; [8]Fundación Santa Fe de Bogotá, Bogotá, Colombia; [9]Hematooncólogos SA, Cali, Colombia; [10]Hospital Pablo Tobón Uribe, Medellín, Colombia; [11]Clínica Nuestra Señora de los Remedios, Cali, Colombia; [12]Clínica Imbanaco, Cali, Colombia; [13]Hospital Universitario San Vicente Fundación, Medellín, Colombia; [14]Centro de Investigaciones Clínica San Diego, Bogotá, Colombia; [15]Asociación Colombiana de Hematología y Oncología, Bogotá, Colombia; [16]Hospital Universitario La Fe, Valencia

RENEHOC
Registro de Enfermedades Neoplásicas Hematológicas ACHO

INTRODUCTION

The management of secondary acute myeloid leukemia (s-AML) is challenging because its characteristics predict a poor prognosis (1). In Colombia, there is a paucity of evidence regarding outcomes in this subgroup of patients.

AIM

To determine the factors associated with survival in patients with s-AML in Colombia.

METHOD

Secondary analysis nested in the bidirectional multicenter observational registry of hematologic malignancies in Colombia (RENEHOC), from 2009 to February 2023. The main outcome measures were overall survival (OS) and disease-free survival (DFS).

RESULTS

Between 2009 and February 2023, a total of 85 patients diagnosed with s-AML were included in RENEHOC. The OS rate was 14.98% (95%CI 7.09 - 25.63), and the DFS rate was 17.2% (95%CI 7.61 - 30.03).

Table 1. Demographic and Clinical Features of s-AML Patients by Treatment Regimen

Feature	Total	Treatment			P
		Intensive chemotherapy	Non-intensive chemotherapy	Best supportive care	
	n= 85 (100)	n= 37 (43.53)	n= 38 (44.71)	n=10 (11.76)	
Age					
Median (IQR)	66 (22 - 88)	52 (22 - 77)	71 (57 - 88)	79 (68 - 88)	0.0001
Gender					
Male	46 (54.1)	16 (43.2)	24 (63.2)	6 (60.0)	0.2
Female	39 (45.9)	21 (56.8)	14 (36.8)	4 (40.0)	
ECOG					
0	20 (26.3)	15 (45.5)	5 (15.2)	0 (0)	0.001
1	29 (38.2)	14 (42.4)	13 (39.4)	2 (20)	
2	18 (23.7)	4 (12.1)	9 (27.3)	5 (50)	
3	9 (11.8)	-	6 (18.2)	3 (30)	
s-AML type					
NMP-LMA	14 (17.5)	10 (27.8)	4 (11.8)	-	0.86
SMD-LMA	26(32.5)	10 (27.8)	11 (32.3)	5 (50)	
SMD/NMP-LMA	4 (5.00)	2 (5.6)	2 (5.9)	-	
neo-LMA	13 (16.2)	3 (8.2)	8 (23.5)	2 (20)	
t-LMA	23 (28.8)	11 (30.6)	9 (26.5)	3 (30)	
Leukocytes, x10 ^{9}/L					
≤5	29 (34.1)	9 (24.3)	14 (36.8)	6 (60)	0.007
>5-10	5 (5.9)	2 (5.4)	1 (2.6)	2 (20)	
>10-50	21 (24.7)	7 (18.9)	14 (36.8)	0 (0)	
>50	30 (35.3)	19 (51.4)	9 (23.7)	2 (20)	
Hemoglobin, g/dl					
≤10	73 (85.9)	29 (78.4)	35 (92.1)	9 (90)	0.22
>10	12 (14.1)	8 (21.6)	3 (7.9)	1 (10)	
Creatinine, mg/dL					
≤1,3	65 (76.5)	32 (86.5)	29 (76.3)	4 (40)	0.009
>1,3	20 (23.5)	5 (13.5)	9 (23.7)	6 (60)	
Bilirubins, mg/dL					
≤1,2	57 (67.1)	30 (81.1)	20 (52.6)	7 (70)	0.03
>1,2	28 (32.9)	7 (18.9)	18 (47.4)	3 (30)	

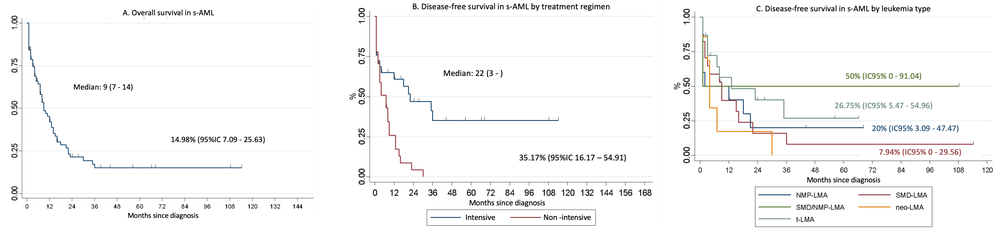
Table 2. OS and DFS Analysis by Treatment Regimen

Survival	Total n (%)	Treatment			P
		Intensive chemotherapy	Non-intensive chemotherapy	Best supportive care	
	n= 67 (100)	n= 37 (55.2)	n= 29 (43.2)	n= 1 (1.4)	
Overall survival (%)	**75 (100)**	**32 (42.6)**	**34 (45.3)**	**9 (12)**	
Median survival, 95%CI (months)	9 (7 - 14)	22 (10 -)	7 (4 - 9)	6 (1 - 14)	0.000
Survival at 1 year (95%CI)	42.1 (30.15 - 53.59)	62.8 (42.74 - 77.52)	28.2 (12.98 - 45.66)	22.2 (3.37 - 51.31)	
Survival at 5 years (95%CI)	14.9 (7.09 - 25.63)	35.6 (17.54 - 54.58)	4 (0.30 - 17.04)	-	
Median follow-up (months)	7 (0 - 114)	12 (0 - 114)	5 (0 - 30)	5.5 (0 - 16)	
Hazard Ratio	-	-	3.57	4.57	
Disease-free survival (%)	**56 (100)**	**29 (51.7)**	**27 (48.2)**	-	
Median survival, 95%CI (months)	9 (3 - 16)	22 (3 -)	7 (2 - 9)	-	0.0004
Survival at 1 year (95%CI)	43.9 (30.33 - 56.81)	60.9 (40.53 - 76.25)	25.8 (10.81 - 43.83)	-	
Survival at 5 years (95%CI)	17.2 (7.61 - 30.03)	35.1 (16.17 - 54.91)	-	-	
Median follow-up (months)	4 (0 - 114)	12 (0 - 114)	5 (0 - 30)	-	
Hazard Ratio	-	-	3.04	-	

Table 3. OS and DFS Analysis by s-AML Type

Survival	s-AML type					P
	SMD-LMA	neo-LMA	t-LMA	SMD/NPM-LMA	NPM-LMA	
	n=27 (32.9%)	n=14 (17.1%)	n=23 (28.0%)	n= 4 (4.9%)	n=14 (17.1%)	
Overall survival	**25**	**11**	**20**	**3**	**12**	
Median survival, 95% CI (months)	9 (4 - 14)	7 (1 - 14)	8 (3 - 35)	12 (1 - .)	18 (2 - .)	0.31
Survival at 1 year (95%CI)	34.6 (16.8 - 53.22)	29.2 (4.68 - 60.99)	49.5 (25 - 70.12)	33.3 (0 - 77.41)	50.9 (18.95 - 0.76)	
Survival at 5 years (95%CI)	4.9 (0 - 20.21)	-	20.6 (4.42 - 45.05)	33.3 (0 - 77.41)	30.5 (7.29 - 58.46)	
Median follow-up in months	8 (0 - 114)	4 (0 - 30)	7 (0 - 66)	6.5 (0 - 108)	10 (1 - 68)	
Hazard ratio	-	1.10	0.61	0.53	0.51	
Disease-free survival	**17**	**7**	**15**	**2**	**10**	
Median survival, 95% CI (months)	9 (2 - 16)	4 (1 - .)	13 (3 - .)	1 (1 - .)	2 (1 - 21)	0.47
Survival at 1 year (95%CI)	39.71 (17.03 - 61.75)	17.14 (0 - 52.56)	56.17 (26.88 - 77.63)	50 (0 - 91.04)	40 (12.27 - 67.02)	
Survival at 5 years (95%CI)	7.94 (0 - 29.56)	-	26.75 (5.47 - 54.96)	50 (0 - 91.04)	20 (3.09 - 47.47)	
Median follow-up in months	8 (0 - 114)	4 (1 - 30)	4 (0 - 66)	1 (0 - 108)	2 (0 - 68)	
Hazard ratio	-	1.38	0.60	0.45	0.92	

Figure 1. Kaplan-Meier Curves for OS and DFS



CONCLUSION

When compared to what is described in the literature regarding AML and the survival of RENEHOC patients with de novo AML, individuals with s-AML have an unfavorable prognosis.

REFERENCES

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CONTACT

Claudia L. Sossa Melo, MD
Email: claudiasossa@gmail.com