613.ACUTE MYELOID LEUKEMIAS: CLINICAL AND EPIDEMIOLOGICAL | NOVEMBER 5, 2021

Impact of Sociodemographic and Clinical Factors on the Survival of Patients with Acute Myeloid Leukemia: A Multicenter Experience in Colombia, on Behalf of Acho's Renehoc-Pethema Investigators

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Abstract

Introduction: Acute myeloid leukemia (AML) is the most common type of acute leukemia in adults, accounting for almost 80 percent of the cases. Incidence of AML increases with age and it ranges from 3 to 5 cases per 100,000 persons in the United States. Advances in treatment have led to significant improvements in outcomes for younger patients, while prognosis in the elderly remains poor. There are different sociodemographic and clinical factors that have an impact on survival such as type of leukemia (secondary vs novo), low socioeconomic status, age, gender, health regimen, co-morbidities and performance status

Objective: The aim of the study was to describe the impact of sociodemographic and clinical factors on survival of patients with AML in 11 health institutions from Colombia, from 2009 to June 2021.

Methods: Population based on RENEHOC (online platform) and PETHEMA (Spanish Program for Hematology Treatments). Kaplan-Meier analysis was used to assess overall survival (OS) and

Results: A total of 463 patients were included. The median age at diagnosis was 61 years (range, 19-90) and 50.5% were female. According to the FAB classification, 95 (26.6%), 84 (23.6%), and 53 (14.9%) of patients were classified as M2, M0 and M1, respectively. The cytogenetic risk was applied for 227 patients (57%), 135 (59.5%) were intermediate and 78 (34.4%) were high-risk. Secondary AML were 73 (18.2%) and these cases evolved from hematological malignancies in 38 cases (80.8%), the most common were myelodysplastic syndrome (n=16; 34%) and chronic myeloid leukemia (n=7; 50%).

For induction therapy, 232 (59.7%) patients received 7+3 (cytarabine/idarubicin), 47 (11.7%) received Azacitidine (AZA) and 23 (5.7%) received FLUGA (Fludarabine/cytarabine low doses). Complete remission (CR) after induction was achieved in 53% of patients, 12% had partial remission, 20.3% had primary refractory AML. Twelve percent died during induction. The most common consolidation regimen was high dose cytarabine (HiDAC), 143 (35,6%) and 36 (9%) of patients received 1 and 2 cycles respectively.

Seventy-two (51%) patients that achieved a CR relapsed, and 46 (69.7%) received second line therapy. The most common treatment was FLAG-IDA (27%), followed by best supportive care (23.8%). The response rate was 40% (CR:31.1%/PR:8.9%) with 16 (36.6%) patients being refractory to treatment. Five (11.1%) died during salvage therapy.

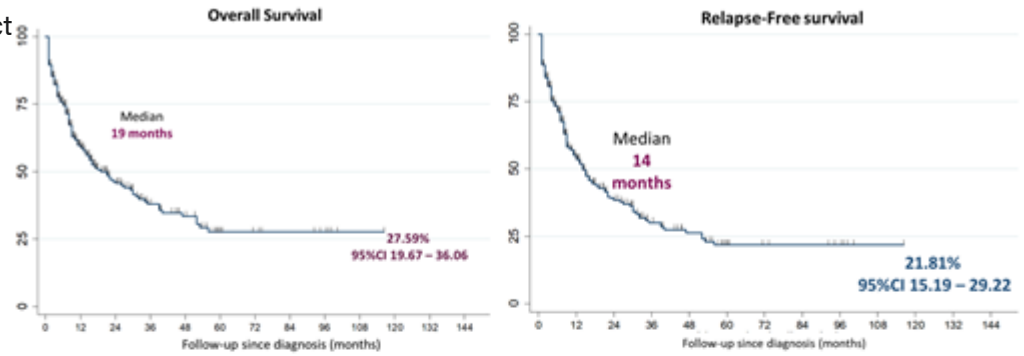
Thirty-eight (21%) patients had a hematopoietic stem cell transplantation (HCT), 35 (92%) had allogeneic HCT and 3 (8%) autologous HCT, respectively.

The median and 5-year OS for the whole population was 19 months and 27.6% (95%CI,19.7- 36.0). The median and 5-year RFS was 14 months and 21.8% (95%CI, 15.2 - 29.2), respectively (Figure 1). Sociodemographic and clinical factors such as age, ECOG PS, co-morbidies (Hypertension, diabetes, and chronic heart failure), AML subtype and leukocytosis at diagnosis were prognostic (Table 1).

Conclusion: This is the first multicenter report analyzing real world data from AML patients in Colombia. Results confirm the impact of clinical factors: age, ECOG, secondary LMA on OS and RFS. Challenges includes low alloHSCT rate and low access to complete cytogenetic and molecular classification at diagnosis.

Figure 1

Abstract



Overall Survival and Relapse-Free Survival according to clinical and demographic factors of AML Colombia patients

Factor	Category	OS 95%CI	HR 95%IC	P value	RFS 95%CI	HR 95%IC	P value
Age (n=259)	<65 years	42.07% (30.64– 53.06)	3.044 (2.10 – 4.29)	<0.001	35.05% (24.99 – 45.26)	-	0.001
	≥ 65 years	0%			0%		
Health affiliation scheme (n=233)	Contributive	25.45% (17.09 – 34.64)	0.60 (0.32 – 1.13)	-	20.4% (13.16 – 28.76)	0.81 (0.48 – 1.36)	0.434
	Subsidized	51.13% (25.05 – 72.25)			32,1% (13.09 – 52.99)		
ECOG (n=259)	<2	37.15% (25.77 – 48.52)	2.50 (1.77– 3.52)	<0.001	30.36% (20.54 – 40.76)	2.67 (1.93 – 3.69)	0.001
	≥2	12.51% (4.74 – 24.25)			7.21% (21.8 – 16.42)		
Comorbidities (n=252)	Yes	5.08% (0.48 – 18.92)	2.40 (1.69 – 3.41)	<0.001	2.83% (0.26 – 11.77)	2.40 (1.69 – 3.41)	0.001
	No	40.9% (29.02 – 52.4)			34.02% (23.4 – 44.9)		
AML type (n=255)	De novo	29.34% (20.32 - 39.94)	1.61 (1.10 – 2.34)	0.01	22.36% (14.55 – 31.23)	1.43 (1.00 – 2.05)	0.04
	Secondary	20.9% (9.06 - 35.14)			18.07% (8.14 – 31.13)		
Leukocytes (n=259)	< 50x10⁹/L	20.69% (12.63 – 30.13)	0.55 (0.38– 0.81)	0.0017	16.27% (9.71 – 24.32)	0.59 (0.41 – 0.85)	0.003
	≥50x10⁹/L	40.67% (24.45 – 56.28)			31.83% (17.7 – 46.89)		
HSCT (n=146)	Allo-HSCT	78.55% (34.85-92.99)	13.67 (4.29–43.56)	<0.001	68.69% (39.09 – 86.06)	7.00 (3.03 – 16.14)	0.01
	No HSCT	16.51% (8.88 - 26.18)			14.15% (39.7 – 22.85)		
Response (n=198)	CR/CRi	35.9% (22.89–49.07)	2.17 (1.46–3.24)	<0.001	29.2% (18.16–41.14)	2.02 (1.39–2.93)	<0.001
	PR/Fail	26,84% (16.09–38.8)			22.0% (12.45–33.28)		

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Disclosures

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