Acute Myeloid Leukemia: A Multicenter Experience in Colombia, on behalf of ACHO's RENEHOC Investigators

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Introduction

Acute Myeloid Leukemia (AML) is a hematological neoplasm with an estimated 5-year survival of 27.3%, however compared with previous years this has increased thanks to a better prognostic understanding of the molecular and cytogenetic characteristics of the disease and the increased use of hematopoietic progenitor cell transplantation (HSCT) in its different modalities, as the best post-mission treatment for long-term survival.

Objective

To characterize the population of patients diagnosed with AML who were attended in 7 health institutions in Colombia, from 2009 to 2020.

Materials & Methods

A total of 289 patients were included in RENEHOC and PETHEMA (Spanish Program for Hematology Treatments); Kaplan-Meier analysis was used to assess overall survival at 1 year (1-OS) and 5 years (5-OS) of follow-up and relapse-free survival (1-RFS, 5-RFS).

Results

Table 1. Characteristics of the patiens AML RENEHOC, Colombia

Characteristics	Patients n= 289 (100%)
Female	146 (50.2%)
Age at diagnosis (years) Median, IRQ	62 (46-71)
ECOG <2	143 (78.1%)
Secondary AML	36 (12.5%)
Responsed	
Complete Remission	76 (45%)
Absolute resistance	30 (17.8%)
Died in induction	23 (13.6%)
Died (day >15)	12 (66.7%)
Treatment Regimens	
Intensive Chemotherapy 7+3 induction regimen	121 (55.8)
Patients who underwent HSCT	29 (21.2%)
Patientes with criteria for HSCT	106 (77.4%)
Allogenic HSCT	26 (19%)
Autologous HSCT	3 (2.2%)

Table 2. Survival by age of the patients AML RENEHOC, Colombia

Survival	Follow-up	<65 years	(95%CI)	≥ 65 years	(95%CI)
Overall	1-year	77.2%	(67.2– 84.5)	26.1%	(15.9–37.4)
	5-years	41.4%	(28.1–54.2)	0%	-
Relapse free	1-year	78.9%	(68.8–86.0)	36.5%	(23.0–50.0)
	5-years	24.7%	(14.6–36.0)	0%	-

Table 3. Survival by HSCT of the patiens AML RENEHOC, Colombia

Survival	Follow-up	autoHSCT	(95%CI)	alloHSCT	(95%CI)
Overall	1-year	100%	-	100%	-
	5-years	0%	-	75.7%	(30.5–93.7)
Relapse free	1-year	100%	(68.8–86.0)	95.4%	(71.9–99.3)
	5-years	0%	-	52.4%	(16.8–79.1)

Figure 1. Overall Survival AML'patients RENEHOC, Colombia

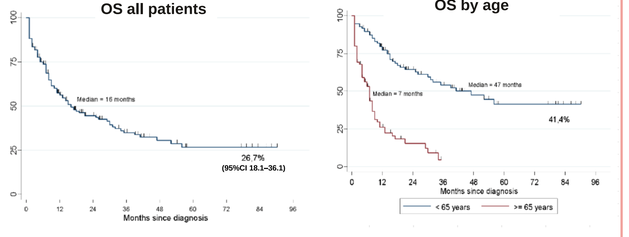


Figure 2. Overall Survival by HSCT

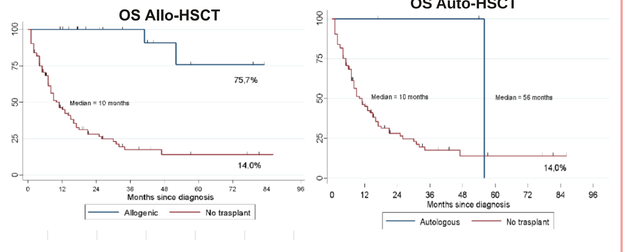


Figure 3. Relapsed Free Survival AML'patients RENEHOC, Colombia

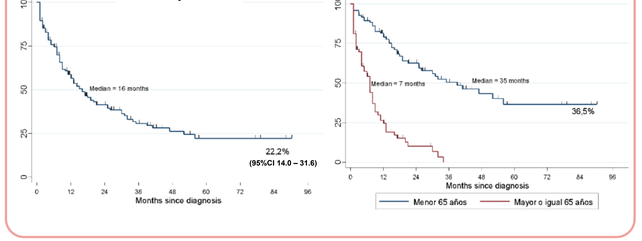
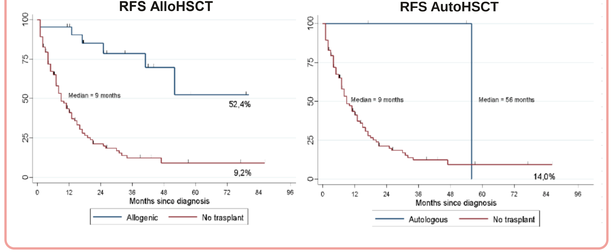


Figure 4. Relapse Free Survival by HSCT



Conclusions

Our results also show AML in an older population and that age is associated with shorter survival. We identified a low proportion of AlloHSCT, despite the survival benefit compared to non-transplant patients.

References

[1] Shallis RM, Wang R, Davidoff A, Ma X, Zeidan AM. Epidemiology of acute myeloid leukemia: Recent progress and enduring challenges. Blood Rev. 2019 Jul;36:70-87. doi: 10.1016/j.blre.2019.04.005. Epub 2019 Apr 29. PMID: 31101526.

[2] Kassim AA, Savani BN. Hematopoietic stem cell transplantation for acute myeloid leukemia: A review. Hematol Oncol Stem Cell Ther. 2017 Dec;10(4):245-251. doi: 10.1016/j.hemonc.2017.05.021. Epub 2017 Jun 20. PMID: 28666104.

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