Abstract: PB1870

Title: FACTORS ASSOCIATED WITH OVERALL SURVIVAL IN ACUTE MYELOID LEUKEMIA: RENEHOC REGISTRY STUDY.

Abstract Type: Publication Only

Session Title: Acute myeloid leukemia - Clinical

Background:

Acute myeloid leukemia (AML) is a heterogeneous and aggressive myeloid malignancy. AML is characterized by a clonal proliferation of myeloid precursors with a reduced capacity to differentiate into more mature cellular elements. AML is considered the most common type of acute leukemia in adults, with a higher incidence in adults older than 65 years, with a mean age of 58 years (IQR: 38 – 72).

Aims:

The aim of this study was to determine factors associated with in acute myeloid leukemia in Colombia.

Methods:

RENEHOC is a bidirectional (retrospective and prospective) multicenter observational registry of hematological malignancies in Colombia. AML patients included from 2009 to February 2023 were analyzed on this report. The Kaplan-Meier estimator was used to calculate time-to-event variables and log-rank test to compare them.

Results:

From 2009 to February 2023, a total of 488 patients were included in the PETHEMA-RENEHOC AML registry, 50.2% were male, the mean age was 60 years (IQR: 41.5 -70), ECOG 0-1 (75%), secondary AML (sAML) (18.6%), FAB M2 classification (24.8%), abnormal cytogenetics (24.6%), intensive chemotherapy (IC) (61.1%), of which the most frequent regimen was IDA+Ara-C (77.2%). Of 347 patients with induction response, 57.5% were complete remission (CR), and 16.7% had induction mortality (IM). Stratifying by age, of patients aged ≥60 years old (age 60+), 53.76% were male, the mean age was 70 years (IQR: 60-98), ECOG \geq 2 (39.04%) and sAML (24.9%). Regarding treatment schedule, 14.4% of patients received best supportive care (BSC) as therapy. Of the patients who received IC, 81.4% were in the age range 60-69 years, 54.6% were male, 44.7% had ECOG \geq 2 and 83.3% were de novo AML (neo-AML), had CR 54.2% and 20.8% had IM. For sAML patients, median age was 66 years (IQR:46-88), 52.9% were male, 34.6% had ECOG ≥2 and 50% had normal cytogenetics; according to treatment schedule, 11.8% received BSC and 43.5% received IC. In the IC-treated group, the median age was 52 years (IQR: 22-77), 43.6% were male, 12.1% had ECOG ≥2, 41.4% had FAB M1/M2 subtype; 32.9% were myelodysplastic syndrome AML (MDS-AML) and 28% were therapy-related AML (t-AML), with predominance in females 40.7% and 69.6%, respectively. In those who received IC, 29.7% had IM and 54% had CR. In those who received nonintensive therapy, 41.4% had CR and 24.1% had IM. Of 141 patients who presented CR, 33.3% received Haematopoietic Stem Cell Transplantation (HSCT), the mean age was 35 years (IQR:28-48), 44.7% were male, 4.3% ECOG ≥2 and 83% were neo-AML. The overall survival (OS) was 22.86 % (95%CI 16.70 - 29.62) and median 8 months (95%CI 7-10). Finally, the 5-year OS of patients aged 60+ was 17.39% (95%CI 6.88 - 31.87), for sAML who received IC was 35.62% (95%CI 17.54 - 54.58), for MDS-AML patients was 4.95% (95%CI 0 - 20.21) and for patients who received HSCT was 63.26%, 95%CI 39.36 - 79.86 (Table1).

Summary/Conclusion:

This data shows that our Colombian population with AML have a higher risk of decreasing survival in the case being older than 60 years or having secondary AML treatment with non-intensive therapy or BSC, as well as not having received a transplant.

Table 1. Overall survival for 5years in AML patients of the RENEHOC registry

Variable	HR (95%CI)	p value
Age ≥ 60 years old		
Intensive	Ref.	
Non-intensive	1.88 (1.27 - 2.78)	0.001
Best supportive care	3.12 (1.81 - 5.36)	0.000
sAML		
Intensive	Ref.	
Non-intensive	3.57 (1.84 - 6.94)	0.000
Best supportive care	4.57 (1.92 - 10.89)	0.001
sAML		
MDS-AML	Ref.	
neo-AML	1.15 (0.50 - 2.62)	0.729
t-AML	0.63 (0.31 - 1.28)	0.206
MDS/MPN-AML	0.55 (0.12 - 2.38)	0.430
MPN-AML	0.53 (0.22 - 1.27)	0.157
HSCT in first CR/Cri		
HSCT	Ref.	
Non-HSCT	4.55 (2.24 - 9.21)	0.000

Keywords: Acute myeloid leukemia, Survival