ALLOGENEIC HAEMATOPOIETIC CELL TRANSPLANTATION IN PATIENTS AGED <60 YEARS WITH ACUTE MYELOID LEUKEMIA

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BACKGROUND AND IMPORTANCE

Allogeneic hematopoietic cell transplantation is a potentially curative therapeutic modality for acute myeloid leukemia, but it still carries high morbidity and mortality; there are limited data regarding outcomes, so it is important to research its results, and the factors that influence them.

OBJECTIVES

To assess the survival of allo-HCT in AML patients age <60 years, describe its characteristics, and identify factors that are related to the best outcomes.

MATERIAL AND METHODS

<table>
<thead>
<tr>
<th>Retrospective observational study</th>
<th>2016-2019</th>
<th>Patients AML aged &lt;60 years</th>
<th>Sex Cytogenetic risk Disease status Karnofsky HCT-CI and EBMTscore</th>
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Donor type Source Conditioning regimens GVHD prophylaxis Retransplantation

Donor age and sex CMV-mismatch ABO-mismatch Development of GVHD Hospitalizations Progression and Death

Overall survival and progression-free survival were analyzed using Kaplan-Meier and Long-Rank test

RESULTS

51% intermediate-risk, 43% high-risk
70% in first complete remission
92% patients KPS score over 90%
54% HCT-CI 0-2, 81% EBMTscore ≤4
65% related donor
(43% HLA-identical and 22% haploidentical)
35% unrelated donor
(22% HLA-identical, 11% HLA 9/10, and 3% HLA 8/10)
70% allogeneic peripheral blood stem cell transplantation

65% reduced-intensity conditioning
16% retransplantation
Most donors were men >30 years
38% received posttransplantation treatment with cyclophosphamide, tacrolimus, and mycophenolate mofetil
19% CMV-mismatch (patient pos/ donor neg)
57% ABO-compatible
54% development chronic GVHD and 40% acute GVHD
43% didn’t require related hospitalization

37 patients
Mean age 45 years
65% women

Kaplan-Meier

12 months
OS (95% CI, 61% - 89%)
PFS (95% CI, 55% - 84%)

24 months
OS (95% CI, 45% - 76%)
PFS (95% CI, 34% - 66%)

Median PFS and OS were not reached. The median follow-up for PFS was 33 months [1-69] and 34 months [1-69] for OS. PFS was significantly higher in patients in 1st CR, EBMTscore ≤4, and lower-risk.

CONCLUSION

Patients undergoing allo-HCT show encouraging survival, although more extended follow-up is required to define more accurately their prognosis.