OUTCOMES OF RELAPSE AFTER MDS HEMATOPOIETIC CELL TRANSPLANTATION FROM LATIN AMERICAN REGISTER

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BACKGROUND

Relapse after Hematopoietic cell transplantation (HCT) in Myelodysplastic Syndromes (MDS) is a challenge due to the lack of standard protocols. Objectives: The aim of this study is to analyze outcomes and risk factors for overall and free relapse survival of patients undergone to Hematopoietic Cell Transplantation (HCT).

METHODS

A retrospective registry of 400 MDS patients from the Latin American Registry was analysed since 1988 to May 2023 from the transplant registry of 32 centers in Latin America. Statistics were performed using SPSSv.23.1, considering a significant p<0.05.

RESULTS

The mean age was 45,54 years. Most patients were ≤ 50 years (50,50 %), about 27,25 % were between 50 and 61 and 22,25 % were > 60 years. There was a predominance of males (58 %). Most patients were classified as intermediate (n=88; 22%) and high risk (n=72; 18%) in Prognosis Scoring System (IPSS-R). Myeloablative conditioning (MAC) was performed in 287 patients (71,75%). Donor type were related (65%), non-related (22,75%) and haploidentical (12,25%). The main cell source was bone marrow (51,50%). Complications post-HSCT were observed in 314 patients (78,5%). The most frequent were infections (n= 253; 80,57%), acute graft versus host disease (GVHD) (n=145; 46,18%) and chronic GVHD (n=113; 35,99%). The frequency of death was 39,5% (n=158). The 5-years overall survival rate was 54.5%. It was higher in High/very high-risk patients (p=0,013). Regarding relapse, the median RFS was 1.9. It was observed a trend to lower RFS for patients older than 60y along 20years (p=0,05). For patients with at least 5years of HCT, those older than 60y had more chance of relapse than those with 51-6 years (p=0,04). In the univariate model, age was associated with risk of relapse, with a 2.52 times higher risk of recurrence for patients aged 60 years or older, compared to those aged up to 50 years. Patients classified as “very high” risk R-IPSS have a 27.66 times higher risk of recurrence than those with low or intermediate risk. Patients who had Myeloablative regimen had 63% less risk of relapse than those who underwent reduced intensity/nonmyeloablative. Higher RFS was also associated with chronic GVHD for 5-y-RFS (p=0,027).

Figure 1: Relapse Free Survival according to age

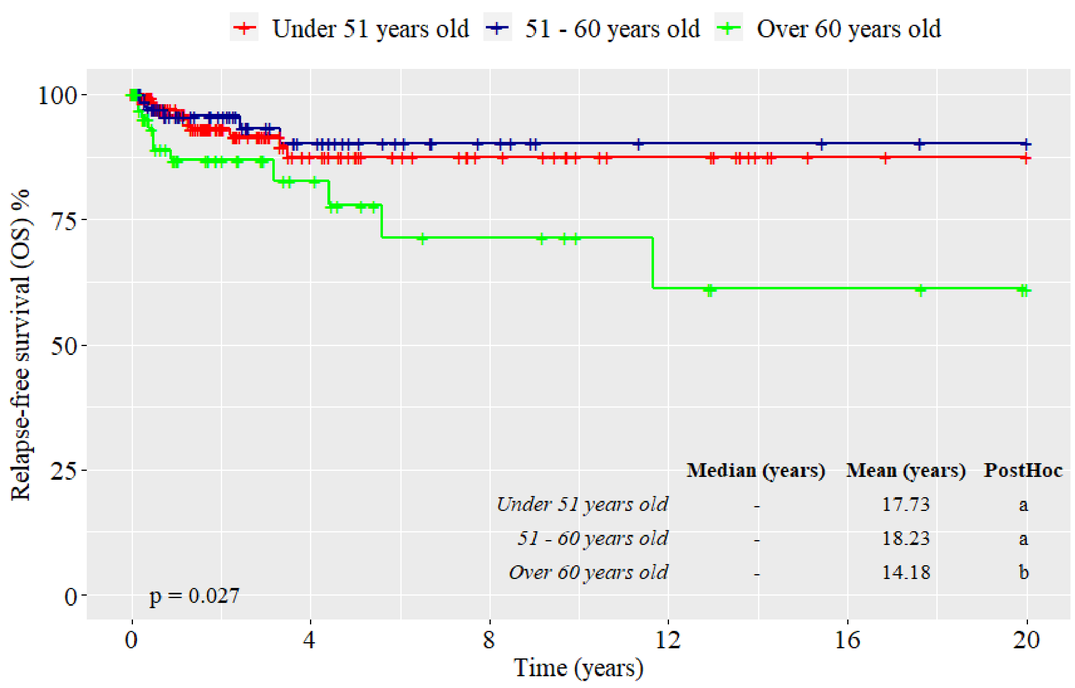


Figure 2: Relapse Free Survival according to R-IPSS.

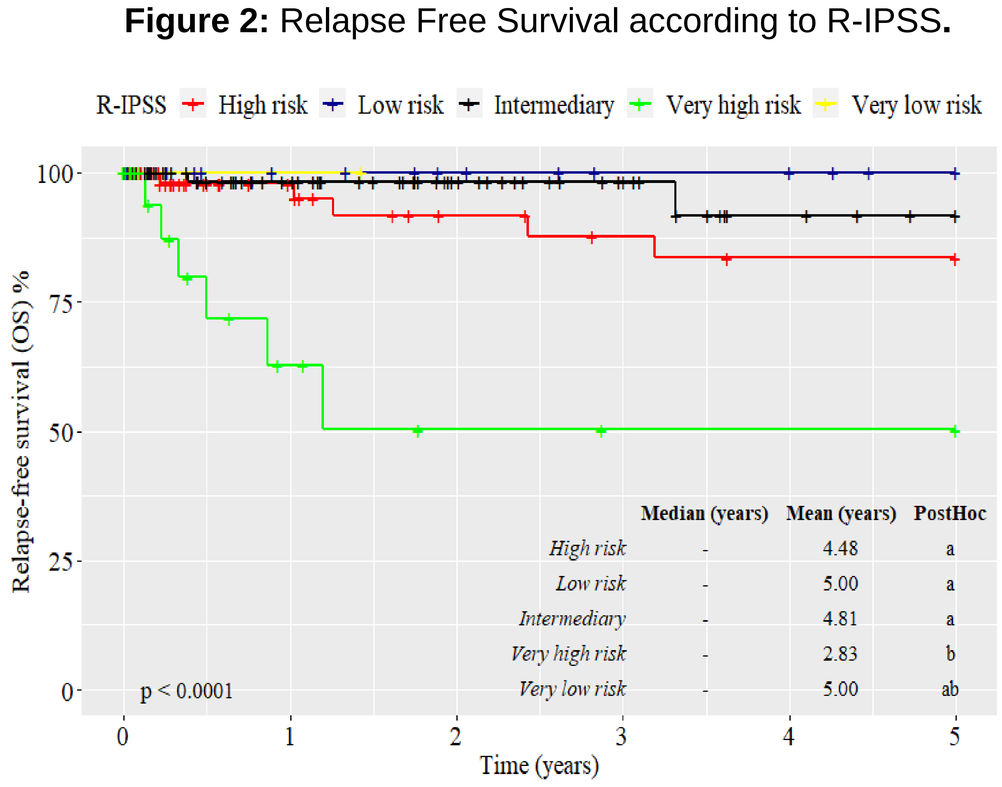
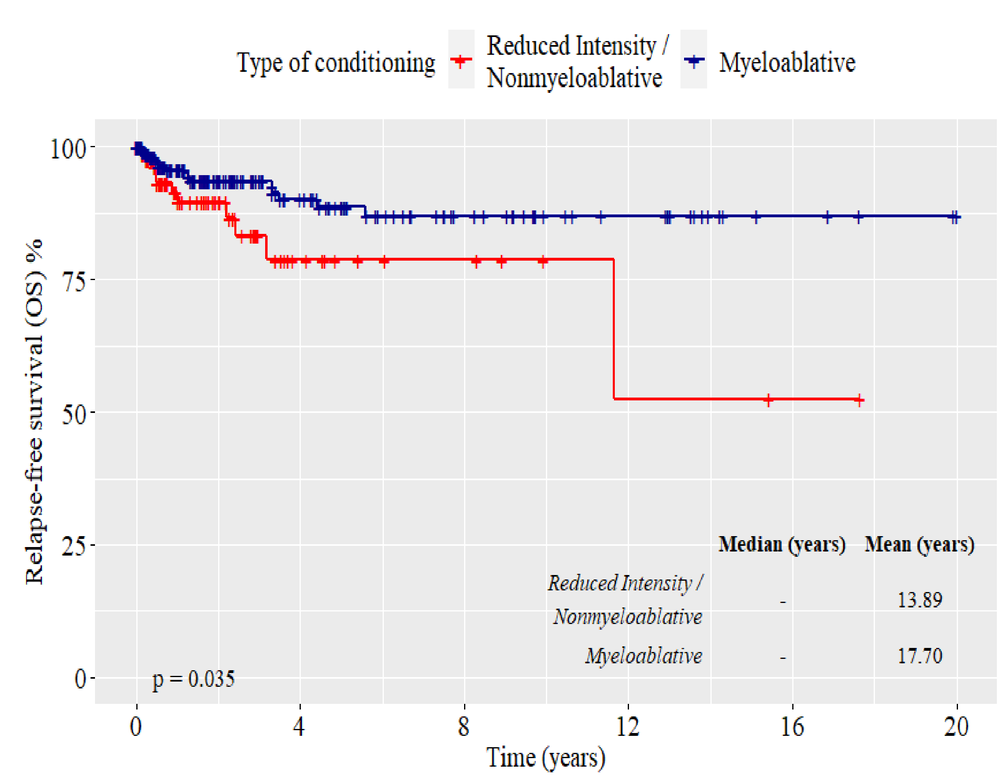


Figure 3: Relapse Free Survival according to conditioning regimen



CONCLUSION

the study showed that relapse occurred more frequently in older patients in shorter and longer period after HCT, suggesting a clonal evolution probably due to senescence process. The myeloablative regimen was associated to lower relapse, what it was confirmed in multivariate model. Another favourable factor was the chronic GVHD, which is related in literature to increase GVL effect, reducing relapse rates. The higher death rate in patients with relapse shows the difficult to treat these patients due to lack of therapeutic options, even with DLI and a second HCT approaches. The present study include patients from a long period, with different realities. Some of them undergone to HCT without an adequate stratification or even were not stratified. The outcomes provides the scenario to prospective studies in order to better comprehend the prognostic factors and overcome challenges in the prevention and management of relapse in MDS in LA.

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