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ASCT: A Viable First-Line Treatment Option for Elderly Multiple Myeloma Patients Without Access to New Drugs

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INTRODUCTION

The standard first-line therapy for multiple myeloma (MM) involves induction therapy combined with autologous hematopoietic stem cell transplantation (ASCT). While no guidelines explicitly recommend against ASCT based on age, many centers typically set a cutoff at 65 years for this treatment.

AIM

A real-world perspective on the safety and survival benefits of ASCT in the elderly population.

METHOD

We conducted a retrospective analysis at Beneficência Portuguesa of São Paulo on patients with MM who underwent ASCT between 2016 and 2023. The study focused on patients over 65 and included a subanalysis of patients over 70. We analyzed progression-free survival (PFS) and overall survival (OS).

RESULTS

We included 136 patients aged 65 years and older in our study, of whom 39 were over 70 years. The one-year, two-year, and three-year PFS rates were 80%, 67%, and 53%, respectively, with a median PFS of 3.3 years. In a subanalysis by conditioning regimen (melphalan 200 mg/m^2, melphalan 140 mg/m^2, melphalan 100 mg/m^2 and BuMel), no significant differences in PFS were observed after two years. However, in one year, patients who received a Melphalan 200 mg/m^2 conditioning regimen had a PFS of 83%, compared to 74% for those on a less intensive regimen of Mel 140 mg/m^2 and Mel 100 mg/m^2. The median OS in the proven population were 86.4% in the first year, 80.3% at the second year, and 74.1% at the third year. Our subanalysis revealed no significant differences in OS between patients under and over 70 years regardless of conditioning regimen.

Fig 1A. Overall Survival Age > 70 vs. < 70

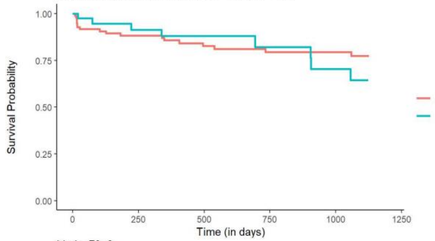


Fig 6B. Progression Free Survival According to Age (< 70 y.o. vs > 70 y.o.)

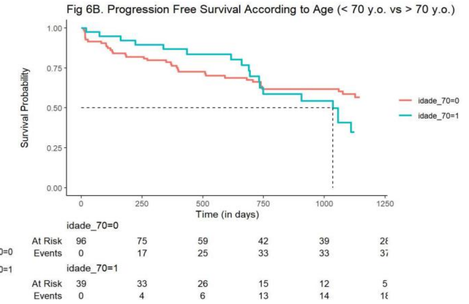
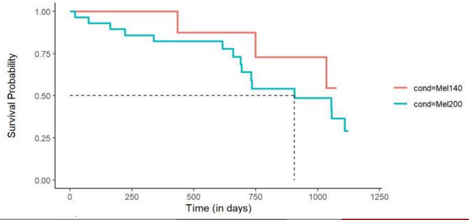


Fig 6C. Progression Free Survival In Older Patients According to Melphlan



CONCLUSIONS

This study provides a real-world perspective on the safety and survival benefits of ASCT in the elderly population. The OS and PFS rates observed are comparable to those in younger age groups studies. Currently, ASCT remains a viable treatment option for elderly patients and should be reevaluated in the future as newer therapies, such as CAR-T cells and bispecific drugs, become more established. This study provides a real-world perspective on the PFS and OS benefits of ASCT in the elderly population, where the results are comparable modern protocols with combined drugs in young patients (MAIA and SWOG S0777). ASCT in this population can be beneficial in first-line therapy as new protocols are unavailable.

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