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POSTER ABSTRACTS

905.OUTCOMES RESEARCH-LYMPHOID MALIGNANCIES

Hospital Associated Disability Among Older Adults with Plasma Cell Disorders Receiving Autologous Stem Cell Transplant

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Background: An increasing number of older adults with Plasma Cell Disorders (PCDs) are receiving autologous stem cell transplant (ASCT) in the US. Hospital associated disability (HAD) is a loss in independence in one or more activities of daily living associated with acute care hospitalization and is a common complication among older adults. The prevalence and prognostic significance of HAD among older adults with PCDs undergoing ASCT is unknown.
Methods: This retrospective cohort study used consecutive adults receiving ASCT at a large U.S. comprehensive medical center between 1/2013 and 5/2023. Trained nursing staff assessed Katz Activities of Daily Living (ADL) at admission and every 3 days thereafter under our Virtual Acute Care for Elders program. The primary outcome was development of HAD defined as ≥1 point decline on the Katz ADL scale from hospital admission to discharge. We also examined the association between development of HAD and various predictors including age, Karnofsky Performance Status (KPS), and Hematopoietic Cell Transplantation-Specific Comorbidity Index (HCT-CI) using modified Poisson regression models with robust variance estimators. Using similar models, we studied the impact of HAD on unplanned 30-day readmission rates.
Results: Of 870 patients undergoing ASCT during the study period, 778 had at least two Katz ADL assessments and were included. The study population was comprised of 56% Caucasian/white ethnicity and 56% male with a median age of 62y (IQR 55-68y). In the overall population, 112 (14.4%) developed HAD. The incidence of HAD was much higher among adults ≥65y compared to their younger counterparts (22% vs. 9%; p=<0.01). In multivariate analysis, age ≥65y (RR 2.22; 95% CI 1.56-3.15; p=<0.001) and baseline KPS <=70 (RR 1.83; 95% CI 1.15-2.92; p=0.011) was associated with increased risk of developing HAD; HCT-CI scores did not have a significant association with HAD. Those with HAD had a two-fold higher risk of 30-day readmission as compared to those without HAD (RR 2.18; 95% CI 1.20-3.66; p=0.003).
Conclusions: Nearly 1 in 4 adults ≥65y developed HAD while undergoing ASCT, which was associated with a two-fold increased risk of 30-day readmission. Interventions to prevent HAD and its downstream consequences are critically needed.

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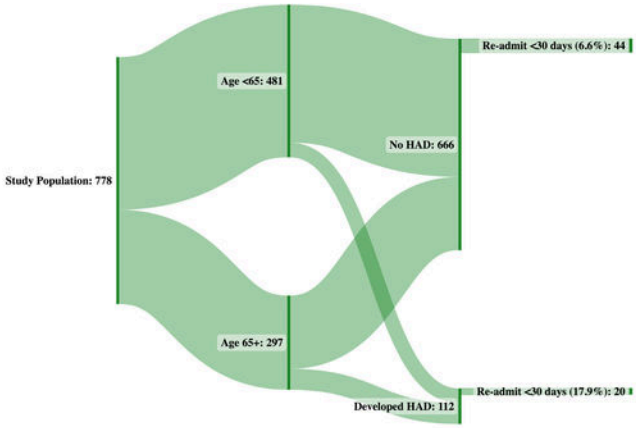

Figure 1: Impact of hospital associated disability (HAD) on 30-day re-admission rates after autologous stem cell transplant (ASCT)

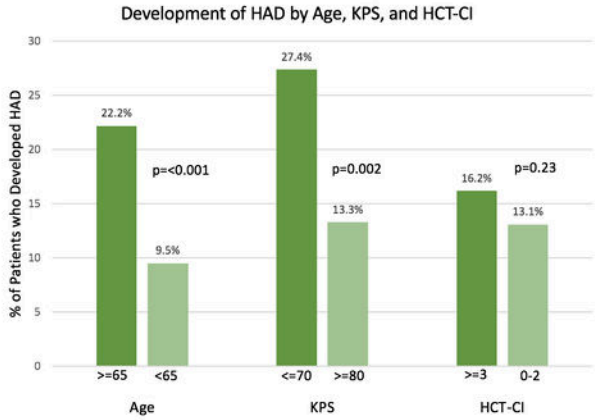

Figure 2: Development of hospital associated disability (HAD) stratified by age, Karnofsky performance status (KPS), and hematopoietic cell transplantation-specific comorbidity index (HCT-CI)

Figure 1

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