Functional Status and Return to Full-Time Work for Adult Hematopoietic Cell Transplantation Survivors

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Background

- Although work status plays an important role in the financial stability and sense of normacy for cancer survivors, medical conditions may limit survivors’ ability to return to work.
- Hematopoietic stem cell transplantation (HCT) is used most commonly for leukemia and lymphoma, but also for non-malignancies such as myelodysplasias. Most HCT recipients are under age 60 and have years left to participate in the labor force.
- After HCT, patients report fatigue, cognitive limitations, and other comorbidities. Full recovery can take years or not occur for a few.
- Patients receiving stem cells from a related or unrelated donor (allelogeneic) instead of their own stem cells (autologous) have complications related to the immunologic reaction of donor cells.
- Chronic graft-versus-host disease (GVHD) occurs in about 60% of allogeneic patients who survive the acute transplant-related toxicities, and can persist for years after HCT.

Aims and Hypotheses

- Primary aim: We investigated the relationship between 6 month post-transplant functional status on return to full-time work in adult high dose HCT recipients.
- Hypothesis: Patients who have a Short Form 36 Health Survey (SF-36) physical function component score (PCS) at 6 months greater than 1 SD below the US population norm will return to full-time work less often than patients with better physical functioning scores.

Secondary aims:

- Examine the percent of HCT patients working at 1, 2, 3 and 5 years post-transplant.
- Examine the self-reported ability to accomplish work among patients who returned to work at 1, 2, and 3 years post transplant.

Methods

- Prospective cohort followed for 5 years after transplant at a medical center specializing in HCT.
- 198 adults primarily with leukemia or lymphoma enrolled before transplant-related treatment; assessments included treatment and demographic factors, date of return to work, and SF-36 at 6 months.
- Binary variable (≥40 ≤40) was created from the SF-36 PCS to indicate patients with t-scores 1 SD below the US population norm.
- For return to work we calculated cumulative incidence in the presence of competing risks and ran multivariate Cox proportional hazard regression models to calculate the hazard ratios (HR) and 95% confidence intervals [95% CI] for PCS t-score and other covariates.
- Percent working at 1, 2, 3 and 5 years was calculated.
- For those working, self-report of ability to work was assessed at 1, 2 and 3 years.

Results

- Of 131 patients working full-time before transplant, 14 (11%) had died and 19 (15%) did not respond to enough questions for PCS calculation at 6 months, leaving 98 patients for the main analysis.
- Patients with PCS scores ≤40 had lower risk at pre-transplant and were more likely to have chronic GVHD than patients with PCS scores >40 and those with missing scores (Table 1).

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