

[73] Impact of Long-Term Sequelae Diagnosed after Hematopoietic Cell Transplantation (HCT) on Health-Related Quality of Life (HRQL): A Report from the Bone Marrow Transplant Survivor Study. Session Type: Oral Session

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Patients surviving HCT are at risk of developing complications that can potentially impact on their HRQL; the magnitude of this impact is not clear. We examined the HRQL reported by 1013 adult survivors of HCT with and without long-term sequelae diagnosed after HCT. Participants had undergone HCT at City of Hope or University of Minnesota, and survived two or more years. Mailed questionnaires were used to assess HRQL (COH-QOL tool) and long-term complications. HRQL was assessed in the following domains – Physical, Psychological, Social and Spiritual well-being and overall QOL. Long-term sequelae examined included impaired hearing, ocular complications, speech difficulties, orodental issues, cardiac dysfunction, stroke, avascular necrosis, pulmonary complications, gastrointestinal and neurologic complications. We estimated least square means of overall QOL and specific domain scores adjusted for age at HCT, sex, marital status; presence of chronic GVHD in the past 12 months; ability to return to work; subject's pain or anxiety level, and physical activity level in the past 7 days. Effect size was calculated as the difference of the adjusted group means ($\text{Score}_{\text{unaffected}} - \text{Score}_{\text{affected}}$) divided by the overall standard deviation (SD). Effect size was examined for clinical significance (>0.33) and statistical significance ($p < 0.05$). The 1013 HCT survivors (71% participation) enrolled in the study included 54% males, 81% Caucasians, 55% with allogeneic HCT. The median age at HCT was 35 years; length of follow-up 7.3 years. The table shows the adjusted effect size associated with long-term complications. Orodental problems, speech difficulties, gastrointestinal, neurological and pulmonary compromise had a clinically and statistically significant impact on overall QOL. Physical well being was affected by impaired hearing, speech difficulties, orodental issues, cardiopulmonary compromise, gastrointestinal and neurological dysfunction. Social well being was affected by speech difficulties, orodental problems, gastrointestinal and neurological complication. Adjustment for pain accounted for the negative impact of AVN on QOL scores. This study describes the most vulnerable HRQL domains, and magnitude of impact of sequelae on HRQL, thus setting the stage for supportive interventions in this growing population.

Impact of Long-term Sequelae on HRQL

Long-term Sequelae	Number with/ without event	Overall QOL	Physical	Psychological	Social	Spiritual
		Effect Size	Effect Size	Effect Size	Effect Size	Effect Size
Hearing	123/713	0.27	0.53 *	0.25	0.16	0.0
Ocular	322/503	0.14	0.29	0.19	0.16	0.11
Speech	15/919	0.34 *	0.59 *	0.25	0.57 *	-0.43
Orodental	221/191	0.41 *	0.47 *	0.25	0.41 *	0.21
Cardiac	165/626	0.27	0.35 *	0.19	0.05	0.16
Stroke	147/612	0.14	0.18	0.06	0.05	0.69 *
Avascular Necrosis	60/711	0.0	0.0	-0.06	0.05	0.16
Pulmonary	147/612	0.34 *	0.41 *	0.19	0.31	0.0
Gastrointestinal	71/780	0.41 *	0.59 *	0.31	0.36 *	0.11
179/592	0.41 *	0.53 *	0.19	0.19	0.36 *	0.16

* denotes $p < 0.05$

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Simultaneous Session: Health Services and Outcomes Research: Bone Marrow Transplantation and Leukemias (4:30 PM-6:00 PM)