

Longitudinal Evaluation of Health Status in Aging Pediatric Hodgkin Lymphoma Survivors: Report from the Childhood Cancer Survivor Study

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Background: Hodgkin lymphoma (HL) is one of the most treatable pediatric cancers; however, long-term survivors have many therapy-related late effects.

Methods: 1,469 5-year HL survivors (mean age: 36.9 years, range 18-58; mean years from diagnosis: 22.7, range 6-38) and 3,206 siblings enrolled in the Childhood Cancer Survivor Study were evaluated at 3 time points. Prevalence of poor health status in 6 domains (general health, functional impairment, activity limitation, mental health, cancer-related pain, and cancer-related anxiety) for survivors and siblings were compared in relation to age, using multiple logistic regression models and generalized estimating equations with data from all time points.

Results: Compared to siblings, HL survivors were more likely to report poor general health (15% vs 6%, $p < 0.01$), greater functional impairment (14% vs 4%, $p < 0.01$), greater activity limitation (15% vs. 6%, $p < 0.01$) and poor mental health (18% vs 11%, $p < 0.01$). The gap between survivors and siblings did not increase with age except for females in the domains of functional impairment and mental health. In models adjusting for race, body mass index and Grade 3-4 chronic health conditions, the odds ratios (OR) for functional impairment in female survivors versus female siblings were 0.8 (95% confidence interval [CI] 0.3-1.9) for 18-29 year olds, 2.5 (95% CI 1.6-3.7) for 30-39 year olds, and 3.1 (95% CI 2.0-4.8) for ≥ 40 year olds. 42% of male and 70% of female survivors ≥ 40 years reported ≥ 1 grade 3-4 conditions. These conditions increased the odds of poor health status.

Conclusions: Pediatric HL survivors have increased odds of poor health status compared to siblings. Aging increases this burden in female survivors in the domains of functional impairment and mental health. Survivors develop serious medical conditions with aging, which increase the odds of poor health status. Survivors may benefit from regular screening to diagnose and intervene against medical conditions.