

Long-term patient-reported neurocognitive outcomes in adult survivors of hematopoietic cell transplant

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(Survey administered July 2018 – June 2019)

This research examines the long-term neurocognitive impairments, or “chemo-brain,” that may occur with hematopoietic cell transplant (HCT) recipients. The study surveyed 1,861 long-term survivors (with a median age of 64.2 years and a median of 12.0 years since HCT) about their neurocognitive function and quality of life. Results showed that, on average, these survivors reported cognitive quality of life similar to the general population. However, 17.4% to 31.2% of participants reported impairments in specific aspects like task efficiency, memory, emotional regulation, or organization, which was higher than the expected 10% in the general population. Patient characteristics associated with impairments included hearing issues, history of stroke/seizure, and self-reported sleep disturbances. Survivors with history of stroke/seizures reported worse scores in task efficiency and memory. In addition, autologous and allogeneic HCT survivors generally had similar outcomes in their cognitive quality of life and neurocognitive impairments.

The study also identified several factors influencing neurocognitive outcomes. While older age was associated with better cognitive quality of life and fewer impairments, survivors with hearing issues, history of stroke or seizures, and sleep disturbances were more likely to have negative neurocognitive outcomes. Overall, monitoring and addressing specific health issues in long-term HCT survivors is key to improving their overall well-being.