

General condition and comorbidity of long-term survivors of adult acute lymphoblastic leukemia

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Abstract

Cure rates in adult acute lymphoblastic leukemia (ALL) improved using pediatric-based chemotherapy and stem cell transplantation (SCT). However, limited data on the health condition of cured adults are available whereas pediatric data cannot be transferred. The GMALL analyzed the health status in survivors of adult ALL retrospectively. Physicians answered a questionnaire on general condition (Eastern Cooperative Oncology Group [ECOG] status) and comorbidity or syndrome occurrence observed after treatment. Five hundred and thirty-eight patients with a median age of 29 (range, 15-64) years at diagnosis were analyzed, median follow-up was 7 (range, 3-24) years. Thirty-one percent had received SCT. ECOG status was 0-1 in 94%, 34% had not developed significant comorbidities. Most frequent comorbidities involved the neurologic system (27%), endocrine system (20%), skin (18%), graft-versus-host-disease (15%), cardiac system (13%), fatigue (13%). SCT impacted ECOG status and comorbidity occurrence significantly. ECOG 0-1 was observed in 86% of SCT and 98% of non-SCT patients ($P<0.0001$); comorbidity was observed in 87% and 57% respectively ($P<0.0001$). Our analysis elucidates the spectrum of comorbidities in cured adult ALL patients, with higher risk for transplanted patients, providing stimulations for the design of adequate aftercare programs. Overall, a large proportion of non-SCT patients achieved unrestricted general condition. The data provide a reference for new patient-centered endpoints in future trials.

Introduction

Outcome of adult acute lymphoblastic leukemia (ALL) has considerably improved using pediatric-based therapies. Complete remission rates reach 90% and survival approaches 60-70% in younger adults.^{1,2} Intensive chemotherapy is the mainstay of therapy and patients suffer from acute and long-term toxicities. In addition,

more adult compared to pediatric patients display high-risk (HR) features and these patients are often candidates for allogeneic stem cell transplantation (SCT).³ With improving survival, the incidence and type of comorbidities and late effects is highly relevant. A variety of systematic evaluations of survivors from pediatric neoplasia have been reported.⁴⁻⁷ Several specific syndromes were described such as disorders of the central