Older patients with Non-Hodgkin lymphoma receive as many treatment lines as younger ones through adjustment, in a real-life setting

Clinical hemato-oncology

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Introduction

As patients are living longer, the aging phenomenon is a major challenge in the management of cancer. This is particularly true for patients with Non-Hodgkin lymphoma (NHL), where the median age at diagnosis is around 70 years. In our study, we aim to investigate outcomes of older patients treated setting.

Methods

172 patients with NHL treated between 2016 and 2021 at the Fribourg Oncology Department at HFR Hospital have been included in this analysis. Clinical data collected included: gender, age, comorbidities (standardized using the Cumulative Illness Rating Scale for Geriatrics, CIRS-G score), tumor histology and stage, treatment types (including number of lines and treatment intensity) as well as outcomes, including response to treatment, toxicities as Grade >2 according to CTCAE V5.0 and survival. Clinical data were analyzed using generalized linear models and Kruskal Wallis test.

Results

From the entire cohort of patients, 70 patients were younger than 70 years (Group 1) and 102 were 70 years or older (Group 2). The most common NHL subtype was Diffuse large B-cell lymphoma (35%). We observed a similar number of treatment lines received between the two groups *(Figure 1)*, and a similar rate of toxicity events per treatment line with increasing age. Treatments were less intensive in group 2 (p-value 0.007). Regarding CIRS-G score, we found a statistical difference between the two groups, with higher CIRS-G scores in patients older than 70 years (p-value <0.05) *(Figure 2).* While age did not affect the number of treatment lines, an increasing CIRS-G score lead to a reduced number of treatment lines *(Figure 3)* and intensity (p-value 0.001 and <0.001 respectively). We subsequently focused on the evolution of oncological outcomes as a function of age. An increase in mortality at 6, 12, and 24 months with advancing age was observed, along with a decrease in complete and partial response rates (p-value of 0.008, 0.002 and <0.001 respectively) *(Figure 4).*

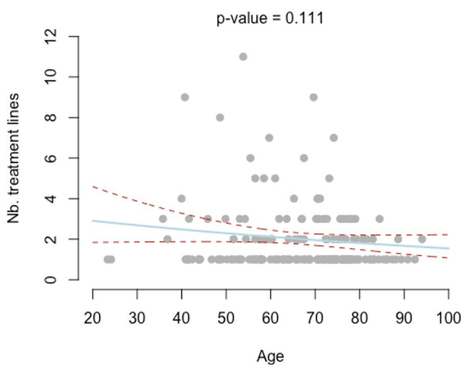

Figure 1 Effect of age on the number of treatment lines

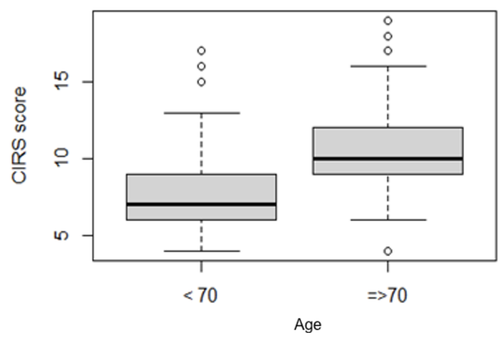

Figure 2 Impact of age on CIRS-G score

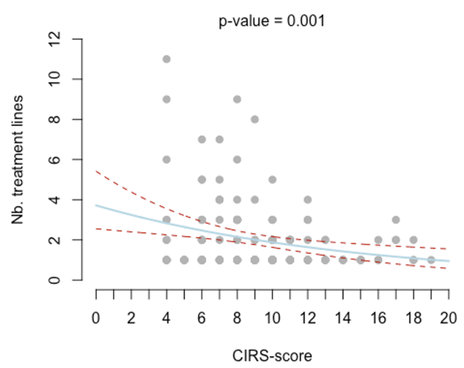

Figure 3 Impact of CIRS-G score on the number of treatment lines

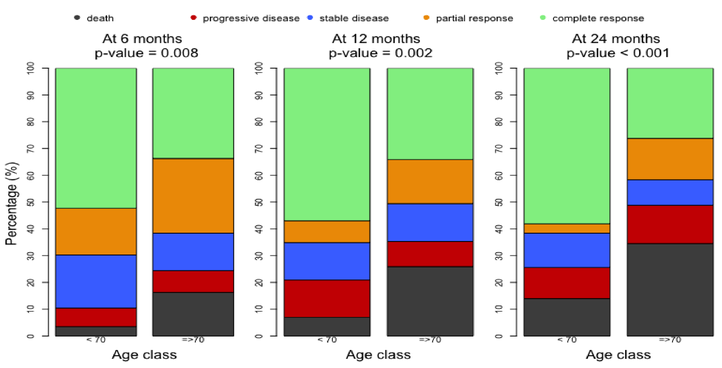

Figure 4 Impact of age on outcome

Conclusion This analysis shows that the favorable toxicity profile in older patients treated for NHL is possible through adaptation of treatment intensity. Such adaptation allows multiple treatment lines independently of age *(Figure 2)* but based on CIRS-G score *(Figure 3).* However, older age is correlated with a higher mortality and a decrease in response rates *(Figure 4).*

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