Writing Assignment 4

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Article summary

 This article explains to us that after receiving first-line chemoimmunotherapy, patients with relapsed or refractory large B-cell lymphoma have a poor prognosis. The likelihood of responding to chemotherapy is reduced by certain characteristics of the disease, such as primary resistance, a high second-line International Prognostic Index, and double- or triple-hit genetic lesions in the tumor. High-dose chemotherapy with autologous stem-cell transplantation is not recommended for patients whose disease doesn't respond to salvage chemotherapy. Different mechanisms of action may be helpful for these patients in second-line therapies.

Testing methods

 The authors conducted this trial at 77 sites worldwide. Large B-cell lymphoma patients must be at least 18 years of age and have histological confirmation. As defined by the World Health Organization 2016 classification criteria,12 a patient who had either relapsed from complete remission or was refractory to first-line treatment within 12 months of undergoing first-line chemotherapy including an anti-CD20 monoclonal antibody and anthracycline-containing regimen; patients were planning to undergo high-dose chemotherapy followed by autologous stem cell transplantation. Those with refractory disease, or those who have relapsed after first-line therapy, were referred to as refractory, while those with relapsed disease were referred to as relapsed.

Results

 One hundred and eighty patients received AXI-CEL and one hundred and seventy-nine received standard care. Based on AXI-CEL therapy's superiority in terms of event-free survival, it was established that the treatment was superior to conventional therapy. Following a median follow-up of 24.9 months, the AXI-CEL group had an 8.3-month median event-free survival rate, while the standard-care group had a 2.0-month median event-free survival rate; 41% and 16%, respectively, had 24-month median event-free survival rates. Among the patients in the AXI-CEL group, 83% responded to treatment, while 50% responded to standard care. Based on an interim analysis, the AXI-CEL group had a survival rate of 61% at 2 years while the standard-care group had a survival rate of 52%. 91% of those who received AXI-CEL experienced adverse events of grade 3 or higher, compared to 83% of those who received standard care. Cytokine release syndrome and neurologic events occurred in 21% and 6% of patients receiving AXI-CEL, respectively. Neurologic events or cytokine release syndrome did not result in any deaths.

References

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