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Conference Abstract A29

Multicenter International Experience in the Treatment of Aggressive Peripheral T-Cell Lymphomas

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Introduction

Peripheral T-cell lymphomas represent a rare and morphologically heterogeneous group of predominantly aggressive mature T/NK-cell neoplasms characterized by a high frequency of primary refractory disease and relapse. We conducted a multicenter analysis of therapy in patients with aggressive peripheral T-cell lymphomas, taking into account the use of hematopoietic stem cell transplantation as well as targeted and immunotherapy.

Patients and Methods

The study included 204 patients with aggressive variants of peripheral T-cell lymphomas. Histological distribution was as follows: peripheral T-cell lymphoma, not otherwise specified — 33%; anaplastic large-cell lymphoma ALK+— 15%; anaplastic large-cell lymphoma ALK- — 19%; angioimmunoblastic T-cell lymphoma — 17%; and other rare forms — 16%. The median age was 47 years (range 1–76), and the median follow-up for surviving patients was 46 months (range 7–234). Primary refractory or relapsed disease was observed in 172 patients (84%). Autologous hematopoietic stem cell transplantation was performed in 79 patients, and allogeneic hematopoietic stem cell transplantation in 28 patients. In 76 cases (37%), targeted and immunotherapy were administered based on the biological features of the tumor.

Results

Five-year overall survival and progression-free survival for the entire cohort were 49.5% and 32.4%, respectively. Subgroup analysis of first-line therapy demonstrated the benefit of consolidating the initial chemosensitive response with autologous hematopoietic stem cell transplantation (progression-free survival 57.9% versus 21%; p = 0.024). Comparison of autologous hematopoietic stem cell transplantation performed in first versus subsequent lines of therapy showed five-year progression-free survival rates of 60% and 37%, respectively (p = 0.026). Experience with targeted and immunotherapy demonstrated overall response rates of 48% for brentuximab vedotin monotherapy and 52% in combination, 50% for nivolumab monotherapy and 22% in combination, and 83% for ALK inhibitors in monotherapy and 100% in combination. Among 15 patients (60%) with chemoresistant disease who underwent allogeneic hematopoietic stem cell transplantation, targeted and immunotherapy were used as preparation for transplantation. Allogeneic hematopoietic stem cell transplantation with graft-versus-host disease prophylaxis based on post-transplant cyclophosphamide, performed in complete remission, yielded a progression-free survival probability of 73.3%. Comparative analysis of autologous versus allogeneic hematopoietic stem cell transplantation in second and subsequent lines of therapy showed a trend favoring allogeneic transplantation but without achieving statistical significance (p = 0.11).

Conclusion

This case illustrates the rare coexistence of multiple myeloma and T-cell lymphoblastic leukemia/lymphoma, underscoring the importance of timely diagnostics, diagnosis verification, and a comprehensive treatment approach.

Standard chemotherapy regimens demonstrate limited efficacy in the treatment of aggressive peripheral T-cell lymphomas. Performing autologous hematopoietic stem cell transplantation as consolidation in first-line therapy is considered the preferred clinical approach. The appropriateness of autologous transplantation at later stages remains a matter of debate and requires further investigation. Allogeneic hematopoietic stem cell transplantation is an effective method with curative potential for relapsed or refractory aggressive peripheral T-cell lymphomas. The use of targeted and immunotherapy improves the prognosis of patients with refractory or relapsed disease, particularly in preparation for allogeneic transplantation.