(PB2604) SAFETY AND EFFICACY OF CHIDAMIDE-BASED INTENSIFIED CONDITIONING REGIMEN IN ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANTATION IN PATIENTS WITH T-CELL ACUTE LYMPHOBLASTIC LEUKEMIA/LYMPHOMA

Topic: 02. Acute lymphoblastic leukemia - Clinical

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Aims

To analyze the safety and efficacy of chidamide-based intensified conditioning regimen in allogeneic hematopoietic stem cell transplantation(allo-HSCT) in patients with T-cell acute lymphoblastic leukemia/lymphoma (T-ALL/LBL).

Methods

A retrospective analysis was conducted on 31 T-ALL/LBL patients who underwent allo-HSCT and received the chidamide combined with modified BuCy conditioning regimen in our Department from August 2020 to January 2025.Data of 54 T-ALL/LBL patients who underwent traditional modified BuCy conditioning regimen from March 2015 to December 2020 were collected as a control group. The adverse reactions and clinical outcomes of the two groups were observed and compared after transplantation.

Results

The median time of neutrophil engraftment in chidamide and control groups was 14 (8 - 17) days and 12 (9 - 20) days, respectively (P=0.31). The median time of platelet engraftment was 15 (9 - 29) days in chidamide group and 13 (9 - 30) days in the control group (P=0.34). The incidence of grade II - IV acute GVHD (aGVHD) in chidamide and control groups was 35.5% and 40.7% (P=0.50), the incidence of grade III - IV aGVHD was 6.5% and 1.9% (P=0.28) and the incidence of chronic GVHD (cGVHD) at 2 years was 34.3% and 22.2% (P=0.39). The median follow-up time was 25.6 months and 87.9 months in chidamide and control groups. The 2-year cumulative incidence of relapse was 18.5% and 35.2%, respectively (P=0.065). the 2-year NRM was 11.2% and 20.4%, respectively (P=0.22). The 2-year OS was 80.3% and 50.0%, respectively (P=0.0029). The 2-year DFS was 74.6% and 44.4%, respectively (P =0.005). Further subgroup analysis of high risk T-ALL/LBL patients, the 2-year cumulative incidence of relapse in chidamide and control groups was 21.4% and 45.2%(P=0.043), the 2-year NRM was 7.1% and 19.4%(P=0.10), the 2-year OS was 85.9% and 41.9%(P=0.00031), and the 2-year DFS was 77.9% and 35.5%,respectively (P=0.00081).

Summary/Conclusion

The chidamide intensified regimen may be an effective and acceptable safety option for T-ALL/LBL undergoing allo-HSCT. Notably, for patients with high-risk T-ALL/LBL, this regimen could reduce relapse without increasing NRM and improve the prognosis.