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723.ALLOGENEIC TRANSPLANTATION: LONG-TERM FOLLOW-UP AND DISEASE RECURRENCE

Comparison of Long-Term Outcome between Imatinib and Dasatinib Prophylaxis after Allogeneic Stem Cell Transplantation in Patients with Philadelphia-Positive Acute Lymphoblastic Leukemia-a Multi-Center Retrospective Study

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Background: Though the prognosis of Philadelphia-positive (Ph-positive) acute lymphoblastic leukemia (ALL) has been improved since the introduction of tyrosine kinase inhibitors (TKIs) and combined with allogeneic stem cell transplantation (allo-HSCT), relapse after HSCT remains a concern. Prophylactic TKIs after allo-HSCT seemed a promising strategy to prevent relapse. But the optimal choice of the agent is still obscure.Methods: We retrospectively analyzed the clinical data of Ph-positive ALL patients who underwent allo-HSCT in CR1 from 6 medical centers in China between September 2010 and October 2021. Patients were divided into two cohorts according to different choice of TKI after allo-HSCT, namely Ima cohort with imatinib prophylaxis and Das cohort with dasatinib prophylaxis. Survival and safety outcomes of two cohorts were compared, and prognostic factors were determined by univariate and multivariate analyses.Results: One hundred and forty-one patients, with median age of 37 years (range, 14-61 years), were included, of whom 91 were in Ima cohort and 50 were in Das cohort. After median follow-up of 50.6 months, 5-year cumulative relapse rate (CIR), non-relapse mortality rate (NMR), leukemia-free time (LFS) and overall survival (OS) in Ima and Das cohort were 16.1% and 12.5%; 5.2% and 9.8%; 78.8% and 77.6%; 86.5% and 77.6%, respectively, with no significant difference. Mild cGVHD was higher in Das cohort compared to Ima cohort, while the total, moderate or severe cGVHD were similar. The most common adverse event was neutropenia (66.4%). Das cohort owned higher incidence of gastrointestinal bleeding and gastrointestinal reaction than Ima cohort. The proportion of patients treated on schedule was 30% in Das cohort, lower than that of in Ima cohort ($p<0.001$). Drug intolerance was the main reason for not completed treatment as intended.Conclusions: For patients with Ph-positive ALL receiving allo-HSCT in CR1, imatinib prophylaxis after transplantation could obtain the same long-term outcome compared to dasatinib, showing better tolerance.

Disclosures No relevant conflicts of interest to declare.

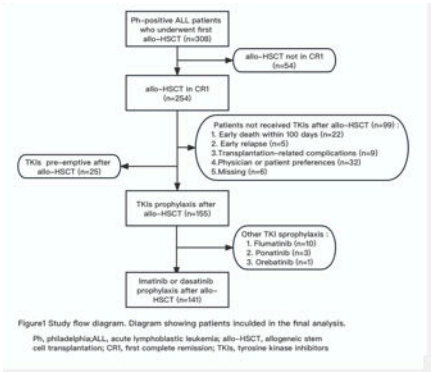

Figure1 Study flow diagram. Diagram showing patients inculded in the final analysis.

Ph, philadelphia;ALL, acute lymphoblastic leukemia; allo-HSCT, allogeneic stem cell transplantation; CR1, first complete remission; TKIs, tyrosine kinase inhibitors

Table 1 characteristics of TKI maintenance after SCT

	Overall (n=141)	Ima cohort (n=91)	Das cohort (n=50)	P value
Time from transplantation to onset of TKI maintenance, day (range)	97 (33-360)	98 (38-360)	95.5 (33-319)	0.868
Duration of TKI therapy				0.141
Median days, range	365 (30-1935)	365 (30-1935)	336 (30-1104)	
<3 months (n, %)	7 (5)	3 (3.3)	4 (8)	
>1 year (n, %)	54 (38.3)	35 (38.5)	19 (38)	
>2 years (n, %)	7 (5)	5 (5.5)	2 (4)	
Completed TKI as intended				<0.001
Yes (n, %)	79 (56)	64 (70.3)	15 (30)	
No (n, %)	62 (44)	27 (29.7)	35 (70)	
Interruption (n, %)	32 (22.7)	11 (12.1)	21 (42)	
Median days, range	18 (7-198)	21 (10-56)	17 (7-198)	
Discontinue (n, %)	30 (21.3)	17 (18.6)	13 (26)	
Switched to the other TKIs (n, %)	20 (14.2)	3 (3.3)	17 (34)	
Both or all of above (n, %)	17 (12)	3 (3.3)	14 (28)	
Reason for not completed as intended				

Figure 1

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