

## Risk prediction for event-free survival at 24 months in patients with peripheral T-cell lymphoma

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**Background/Aims:** Event free survival at 24 months is known to be a surrogate marker for overall survival in peripheral T-cell lymphoma (PTCL). There are few data about the role of autologous hematopoietic stem cell transplantation (ASCT) for predicting EFS24. We investigated event-free survival at 24 months (EFS24) and then assessed predictive factors of EFS24.

**Methods:** In this study, we included patients with PTCL treated with anthracycline-based chemotherapy. Subsequent OS was defined as the time elapsed from 24 months after diagnosis until death from any cause in those who achieved EFS24. In case of progression, it was defined as the time between the date when progression was first confirmed to time of death from any cause.

**Results:** Totally, 178 patients with PTCL were included. The median follow-up was 16.0 months (range: 0 to 107) and 63 (35.4%) patients achieved EFS24. Subsequent OS in patients who achieved EFS24 was not significantly different from that of age- and sex-matched individuals from the general population ( $P = 0.057$ ). After matching the baseline characteristics to a diffuse large B-cell lymphoma (DLBCL) cohort, the subsequent OS in patients who achieved EFS24 was similar between both groups ( $P = 0.06$ ). Advanced stage and elevated free light chain were related with low probability of achieving EFS24 in PTCL.

**Conclusions:** EFS24 could stratify the subsequent OS in patients with PTCL, patients with advanced stage or elevated free light chain are urgently required for novel therapeutic strategies.

**Table 3. Univariate analysis of predictive factors for EFS24<sup>↕</sup>**

↕	PTCL↕		DLBCL↕	
Univariate analysis↕				
Variable↕	HR (95% CI)↕	P-value↕	HR (95% CI)↕	P-value↕
Age ≥60↕	2.712 (1.226-5.996)↕	0.014↕	1.572 (0.718-3.442)↕	0.258↕
Male↕	0.820 (0.363-1.852)↕	0.634↕	1.591 (0.729-3.471)↕	0.243↕
ECOG ≥2↕	1.219 (0.451-3.293)↕	0.696↕	1.794 (0.650-4.949)↕	0.259↕
Stage 3/4↕	5.636 (2.310-13.750)↕	<0.001↕	10.133 (3.561-28.833)↕	<0.001↕
Extranodal >1↕	1.977 (0.840-4.652)↕	0.118↕	2.947 (1.338-6.492)↕	0.007↕
LDH, elevated↕	3.062 (1.377-6.810)↕	0.006↕	3.095 (1.254-7.637)↕	0.014↕
BM involvement↕	2.811 (1.159-6.818)↕	0.022↕	5.000 (1.458-17.149)↕	0.010↕
EBV positive↕	1.944 (0.756-4.999)↕	0.167↕	1.297 (0.275-6.117)↕	0.742↕
ALC <1000↕	1.821 (0.803-4.132)↕	0.151↕	3.167 (1.367-7.334)↕	0.007↕
Elevated FLC↕	5.714 (1.664-19.629)↕	0.006↕	2.004 (0.921-4.358)↕	0.079↕
Low albumin↕	1.959 (0.784-4.896)↕	0.150↕	6.286 (2.562-15.423)↕	<0.001↕
Multivariate analysis ↕				
Stage 3/4↕	11.703 (3.114-43.985)↕	<0.000↕	6.676 (2.220-20.072)↕	<0.001↕
Elevated FLC↕	5.582 (1.335-23.346)↕	0.019↕	↕	↕
Low albumin↕	↕	↕	3.255 (1.230-8.613)↕	0.017↕

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ALC, absolute lymphocyte count; BM, bone marrow; CI, confidence interval; DLBCL, diffuse large B-cell lymphoma; EBV, Epstein-Barr virus; ECOG, Eastern Cooperative Oncology Group; EFS24, event-free survival at 24 months; FLC, free light chain; HR, hazard ratio; LDH, lactic dehydrogenase; PTCL, peripheral T-cell lymphoma.<sup>↕</sup>