#231: Clinical Characteristics and Patterns of Care of Patients (pts) with Peripheral T-cell Lymphoma (PTCLs) according to age at time of diagnosis: A T-Cell Project snapshot.

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Background

A satisfactory understanding of clinical and biological characteristics of PTCLs is lacking, no reliably effective treatment is available and pts outcome remains very poor. Since pts age is a key factor in choosing initial therapy we analyzed pts aged ≥70 years comparing disease features, treatments and outcome of this subset to their younger counterparts. A parallel analysis is presented by the COMPLETE US network.

Patients and Methods

The T-Cell Project is a prospective registry collecting data on baseline characteristics, details of therapy delivered and outcome data in pts with mature, aggressive PTCLs. Pts were grouped into three age categories (≤60, >60-<70, and ≥70 yrs): chi-square and t-test were used to compare the groups, log rank test and Cox regression models were used for overall survival (OS).

Results

From 2006-2014, 1308 pts were registered from 73 sites world-wide. Complete baseline data was available for 819 pts (≤60: n=462, >60-<70: n=168, ≥70: n=189), 754 of which had also therapy information. Median follow up was 48 mos. Baseline characteristics are shown in **Table 1**. Pts ≥70 years were more likely to suffer from disease-related symptoms, to present with an ECOG performance status >1 and more frequently had bone marrow involvement and ALK- ALCL. Treatment characteristics are shown in **Table 2**. Pts ≥70 years were less likely to receive curative-intent therapy, and type of chemotherapy given was dependent on Pts age. Elderly patients were rarely addressed to high-dose therapy (HDT) as consolidation. 2-yr and 5-yr OS were 60% and 51% (≤60), 55% and 38% (>60-<70), 40% and 24% (≥70 years), respectively (*P<0.0001*). Cox modeling suggests age (HR 1.12; 95% CI:1.04-1.20, *P=0.004*) and stage III/IV disease (HR 3.0; 95% CI: 1.46-6.22, *P=0.003*) are predictors of inferior OS. HDT emerged as a predictor of better OS (HR 0.50, 95% CI: 0.29-0.85, *P=0.01*).

Conclusions

The T-Cell project data document that PTCLs pts ≥70 yrs exhibit a poorer outcome than younger, and are more likely to receive non-curative intent therapy. Optimal treatment for this subset is still a relevant unmet need, and more efforts in defining better strategies are urgent.

Table 1: Baseline Characteristics

Characteristic	≤60 n=462	>60-<70 n=168	≥70 n=189	*p* Value
Gender				0.09
Male	281 (61%)	114 (68%)	107 (57%)	
Female	181 (39%)	54 (32%)	82 (43%)	
Histology				0.001*
PTCL- not otherwise specified	148 (32%)	70 (42%)	89 (47%)	
Anaplastic large cell lymphoma	130 (28%)	29 (17%)	20 (11%)	
T/NK-cell lymphoma	65 (14%)	16 (10%)	12 (6%)	
Angioimmunoblastic	56 (12%)	31 (18%)	52 (28%)	
Other	63 (13%)	22 (13%)	16 (8%)	
Anaplastic large cell lymphoma				
ALK-	77 (59%)	25 (86%)	17 (85%)	0.004
ALK+	53 (61%)	4 (14%)	3 (15%)	
B symptoms (yes)	231 (50%)	90 (54%)	84 (44%)	0.21
Disease-related symptoms (yes)	312 (68%)	130 (77%)	145 (77%)	0.01
ECOG performance status > 1	101 (22%)	46 (27%)	66 (35%)	0.002
Ann Arbor stage				0.06
I/II	157 (34%)	49 (29%)	47 (25%)	
III/IV	305 (66%)	119 (71%)	142 (75%)	
LDH elevated	210 (48%)	73 (48%)	86 (48%)	0.99
Sites of disease				
Nodal	332 (72%)	124 (74%)	153 (81%)	0.054
Extranodal	344 (74%)	128 (76%)	136 (72%)	0.65
Bone Marrow involvement	75 (17%)	39 (25%)	43 (28%)	0.01

*PTCL, NOS vs other subtypes

Table 2: Treatment Characteristics

Characteristic	≤60 n=426	>60-<70 n=156	≥70 n=172	*p* Value
Primary intent of therapy				<0.0001
Cure	409 (96%)	141 (90%)	149 (87%)	
Palliation	17 (4%)	15 (10%)	23 (13%)	
First-line treatment approach				
Induction chemotherapy (ICT) alone	287 (67%)	114 (73%)	129 (75%)	0.13
ICT + HDT consolidation	41 (10%)	8 (5%)	1 (1%)	<0.0001
ICT + radiotherapy consolidation	74 (17%)	15 (9%)	16 (9%)	0.008
Local radiotherapy alone	7 (2%)	4 (3%)	3 (2%)	0.76
Observation/best supportive care	17 (4%)	15 (10%)	23 (13%)	0.02
Other	18 (10%)	7 (9%)	7 (8%)	
Chemotherapy regimens				<0.0001
CHOP/CHOP-like	220 (52%)	84 (54%)	92 (54%)	
CHOEP/CHOEP-like	39 (9%)	20 (13%)	5 (3%)	
Gemcitabine-based	- (0%)	1 (1%)	4 (2%)	
Platinum-based	13 (3%)	4 (2%)	2 (1%)	
Ifosfamide-based	27 (6%)	2 (1%)	1 (1%)	
Other	127 (30%)	45 (29%)	68 (39%)	
Anthracycline containing regimens	344 (81%)	124 (79%)	120 (70%)	0.01
Etoposide containing regimens	95 (22%)	33 (21%)	13 (8%)	<0.0001

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T-cell lymphoma

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