

E-table 1. Details of chemotherapy protocols and corresponding liver function tests during and after chemotherapy.

Chemotherapy protocol for high risk T-cell ALL				Liver function test date	TBIL Umol/L	DBIL Umol/L	ALP U/L	ALT U/L	AST U/L	GGT U/L	ALB g/L	INR	DILI*
VDLP 2019.7.25- 2019.8.28	Prednisone	60mg/m ² /d	d1-d28 d29-d35 stop gradually	2019/7/25 (Baseline)	8	3.3	116	52	48	92.4	36.8	1.05	
	Vincristine	1.5mg/m ² once	qw×4										
	Daunorubicin	30mg/m ² once	qw×4	2019/8/4	14.7	5.1	57	110	39	52.9	35.7	1.13	
	Pegylated- asparaginase	2000-2500U/m ² once	d9, d23	2019/8/21	16.5	5.7	69	298	46	129.5	40.7	0.99	★
	Intrathecal chemotherapy	Dexamethasone Cytarabine Methotrexate	d1, d15, d33	2019/8/24	33.6	13.4	59	227	60	109.9	39.8	1.01	★
				2019/9/2	17.2	7.5	64	26	15	40.6	35.5	1.17	
CAML×1 2019.9.9- 2019.9.22 CAML×2 2019.10.12- 2019.10.25	Cyclophosphamide	1000mg/m ² /d	d1	2019/9/16	15.8	6.4	135	55	33	37	37	1.11	
	Cytarabine	75mg/m ² once	d3-d6, d10-d13										
	Mercaptopurine	50mg/m ² /d	d1-d14	2019/10/11	12.6	5.1	155	158	93	92.4	39.1	0.94	
	Pegylated-asparaginase	2000-2500U/m ² once	d2										
	Intrathecal chemotherapy	Dexamethasone	d3	2019/10/24	18.9	8.5	225	40	34	55.6	34	1.13	

		Cytarabine Methotrexate												
					2019/11/12	8.4	3.7	201	227	115	146.2	37.1	0.96	★
HR-1 2019.11.13- 2019.11.19	Dexamethasone	20mg/m²/d	d1-d5		NA									
	Vincristine	1.5mg/m² once	d1, d6											
	High dose methotrexate	5g/m² once	d1											
	Cyclophosphamide	200mg/m² q12h	d2-4											
	Cytarabine	2000mg/m² q12h	d5											
	Pegylated-asparaginase	2000-2500U/m² once	d6											
	Intrathecal chemotherapy	Dexamethasone Cytarabine Methotrexate	d1											
					2019/12/9	9.2	4.3	242	100	80	133.3	34.9	1.00	
HR-2 2019.12.10- 2019.12.16	Dexamethasone	20mg/m²/d	d1-d5		NA									
	Vindesin	3mg/m² once	d1, d6											
	High dose methotrexate	5g/m² once	d1											
	Ifosfamide	800mg/m² q12h	d2-4											
	Daunorubicin	30mg/m² once	d5											
	Pegylated-asparaginase	2000-2500U/m² once	d6											

	Intrathecal chemotherapy	Dexamethasone Cytarabine Methotrexate	d1											
					2020/1/4	11.9	6.8	226	58	54	196	38.0	0.99	
HR-3 2020.1.6- 2020.1.12	Dexamethasone	20mg/m ² /d	d1-d5		NA									
	Cytarabine	2000mg/m ² q12h	d1-d2											
	Etoposide	100mg/m ² q12h	d3-d5											
	Pegylated-asparaginase	2000-2500U/m ² once	d6											
	Intrathecal chemotherapy	Dexamethasone Cytarabine Methotrexate	d1											
					2020/2/6	11.5	5.2	198	171	122	279.8	44.4	-	
HR-1(2020.2.7-2020.2.13)					NA									
					2020/3/5	13.9	6.1	248	95	83	236.2	44.2	-	
HR-2(2020.3.6-2020.3.11)					NA									
					2020/4/1	19.3	7.5	263	62	68	292.2	41.7	1.79	
HR-3(2020.4.3-2020.4.9)					NA									
					2020/4/14	50.6	24.6	154	128	34	319.1	39.3	1.07	
					2020/4/25	20	10.4	115	38	37	96.5	28.7		
					2020/4/29	10.2	6.2	114	24	36	77.8	39.7	1.13	
					2020/5/11	14.8	6.1	135	91	111	284.8	42.6	0.94	
VDLD	Vindesin	1.5mg/m ² once	qw×3		2020/6/6	12.8	3.8	231	54	72	208.8	47.3	1.06	

[illegible]

			q12w 2021.9.23- 2022.7.28											
After chemotherapy					2022/11/7	25.3	7.7	511	51	-	118	47.1	1.01	
					2023/4/3	29.2	10.3	566	65	-	116	50.0	-	
					2023/10/16	23.9	9	437	38	38	82	45.2	1.11	
					2024/10/26	16.5	8	251	40	68	76	38.1	1.22	

*Drug induced liver injury (DILI) is estimated according to the criteria as follows: Any one of the following: ① More than or equal to fivefold elevation above the upper limit of normal (ULN) for alanine aminotransferase (ALT); ② More than or equal to twofold elevation above the ULN for alkaline phosphatase (ALP); ③ More than or equal to threefold elevation in ALT concentration and simultaneous elevation of bilirubin concentration exceeding 2× ULN^[1].

Reference

[1] Aithal GP, Watkins PB, Andrade RJ, et al. Case definition and phenotype standardization in drug-induced liver injury. Clin Pharmacol Ther. 2011;89(6):806-815. doi:10.1038/clpt.2011.58