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POSTER ABSTRACTS

623.MANTLE CELL, FOLLICULAR, AND OTHER INDOLENT B CELL LYMPHOMAS: CLINICAL AND EPIDEMIOLOGICAL

Primary Clinical Response of Relmacabtagene Autoleucel in Adults with Relapsed/Refractory Follicular Lymphoma (r/r FL) in China

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Abstract Background
Most patients (pts) with r/r FL remain incurable and eventually relapse or progress. Previously, a Ph1 study of relma-cel (NCT03344367) had demonstrated preliminary safety and efficacy in r/r B-NHL pts, including those with r/r FL. A Ph2 pivotal study in r/r FL pts had been enrolled and preliminary efficacy, safety and PK was presented.
Methods
Adult pts were eligible with histologically confirmed grade (Gr)1-3a r/r FL on the basis of the 2016 WHO Classification, having failed ≥ 2-line prior therapies or relapsed after auto-HSCT, without allogeneic transplant within 90 days or primary central nervous system (CNS) lymphoma, and with ECOG performance score of 0-1. Pts were randomized to receive either 100×10^6 (low dose) or 150×10^6 (high dose) relma-cel (1:1) following fludarabine 25 mg/m^2 & cyclophosphamide 250 mg/m^2 daily×3. Pts were evaluated for efficacy (Cheson, 2014), toxicity (cytokine release syndrome [CRS] by Lee 2014, and others by CTCAE v4.03), and PK (by qPCR and flow cytometry). Primary endpoint was complete response rate (CRR). Secondary endpoints included objective response rate (ORR), frequency/severity of AEs, duration of response (DOR), duration of complete response (DoCR), duration of partial response (DoPR), time to primary remission (TTR), time to primary complete remission (TTCR), progression free survival (PFS), overall survival (OS), and CAR-T cell expansion. Disease response was by investigator assessment, a sensitivity analysis was also conducted using an independent review committee.
Results
Between June 2018 and June 2021, 28 r/r FL pts were enrolled and treated. As of the data cut-off of June 11, 2021, 20 pts were treated with relma-cel with ≥ 1 month of follow-up. Among these 20 pts, the median age was 54.5 years (range, 36-71), 50% of pts were male, 85% had ECOG 0, 10% had a sum of perpendicular diameters (SPD) ≥ 5000 mm^2, and 36% (5/14) had a FLIPI2 score≥ 3. Pts had received a median of 3.5 prior lines of therapy, 6 (30%) pts had received at least five lines of treatment and 65% were refractory to last prior treatment, 85% were relapsed, 50% were both relapsed and refractory. Relma-cel was successfully manufactured in all pts.
Best ORR was 100% (19/19), and best CRR was 95% (18/19). For the mITT (n=19, one pt who developed gastric adenocarcinoma, was excluded, but also achieved CR), ORR at 1 month was 100%(19/19) and CRR was 63% (12/19). CRR at 3 months for 17 pts > 3 months post treatment, was 82%(14/17). At a median follow-up of 8.9 months, the median duration of response [DOR], progression-free survival (PFS) and overall survival (OS) were not reached.

	100×10^6 (N=12) n (%)	150×10^6 (N=8) n (%)	Total (N=20) n (%)
JWCAR029 Related Adverse Events n (%)	12 (100.0)	8 (100.0)	20 (100.0)
≥ Grade 3 Adverse Events n (%)	12 (100.0)	8 (100.0)	20 (100.0)
≥ Grade 3 JWCAR029 Related Adverse Events n (%)	10 (83.3)	6 (75.0)	16 (80.0)
Treatment Emergent Adverse Events (TEAEs) n (%)	12 (100.0)	8 (100.0)	20 (100.0)
JWCAR029 Related TEAEs n (%)	11 (91.7)	8 (100.0)	19 (95.0)
≥ Grade 3 TEAEs n (%)	7 (58.3)	5 (62.5)	12 (60.0)
≥ Grade 3 JWCAR029 Related TEAEs n (%)	6 (50.0)	5 (62.5)	11 (55.0)
SAE n (%)	1 (8.3)	0	1 (5.0)
CRS (Any Grade) n (%)	6 (50.0)	1 (12.5)	7 (35.0)
Grade 2/3/4/5 CRS n (%)	0	0	0
Median Duration (day)	5.5	2.0	5.0
NT (Any Grade) n (%)	2 (16.7)	0	2 (10.0)
Grade 2/3/4/5 NT n (%)	0	0	0
Median Duration (day)	16.0	0	16.0
Tocilizumab n (%)	1(8.3)	1(12.5)	2(10.0)
CRS	1(16.7)	1(100.0)	2(28.6)
NT	0	0	0
Steroid n (%)	0	0	0
CRS	0	0	0
NT	0	0	0
PK Parameters(median)			
Cmax (copies/ug)	N=12	N=7	N=19
	22143.5	22322.0	22322.0
Tmax (day)	N=12	N=7	N=19
	15.0	8.0	11.0
AUC1-29 (day*copies/ug)	N=11	N=7	N=18
	255557.0	130797.5	180937.0

Figure 1

Twenty pts who received relma-cel were evaluable for safety. Gr ≥3 AEs related to relma-cel occurred in 80% of pts, most commonly neutrophil count decreased (35%), lymphocyte count decreased (30%) and white blood cell count decreased (25%). CRS occurred in 35% (all Gr 1), and only 2 pts received tocilizumab. Median CRS onset was 7 days (range, 5-9), with median duration of 5 days. Two (10%) pts experience neurotoxicity (NT), both Gr 1, with onsets of 4 and 9 days, and duration of 25 and 7 days, respectively. No deaths occurred. Safety data, tocilizumab/steroids usage and PK parameters are shown in the Table.

Conclusion

With median follow-up of 8.9 months, relma-cel treatment in r/r FL pts had resulted in high tumor remission rates and a manageable toxicity profile in the first 20 pts treated. Data for additional patients will be presented.

Table: The summary of AEs (AE, TEAE, CRS, NT), the usage of tocilizumab/steroids and PK Parameters

Disclosures Yang: *JW Therapeutics:* Current Employment. **Zhang:** *JW Therapeutics:* Current Employment. **Ma:** *JW Therapeutics:* Current Employment. **Zhou:** *JW Therapeutics:* Current Employment. **Zheng:** *JW Therapeutics:* Current Employment.

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