

Table 1: CART cell Therapy in CNS Lymphoma

Author	Cases	Treatment	Age	Male	Female	Outcome	Median no of therapy lines	Comment
Frigault et al ¹ 2019	8 secondary	Tisagenlecleucel	17-79	4	4	D 28 response: 2 CR, 2 PR, 4 PD	5 (range 3-6)	no pts required tocilizumab/high-dose steroids for CRS and/or NT
Abramson et al ² 2017	1 (systemic and cns)	JCAR017	68		1	Ongoing remission at 12 months	5 (incl allo TPL)	
Ghafouri et al ³ 2020	5 R/R NHL with 2 nd CNS involvement	AxicabtageneCiloleucel	58.5 (28.3–76.4)	No data	No data	early response at day +28 (3 CRs; 1 SD, 1 PD) after 6 mo: 3 PD	2.4 (1–4)	CRS Grade 1: 1, Grade 2: 1 ICANS: Grade 3: 1, Grade 4: 1
Li et al ⁴ 2020	5 R/R NHL with 2 nd CNS involvement	CAR 19 and CAR 22	18 - 60	3	2	2 Mo: 1 CR, 4 PR 6 Mo: 2 CR, 3 PD	7 (5-15)	
Abramson et al ⁵ 2020	7 (secondary cns lymphoma)	Lisocabtagene maraleucel	Not specified	Not specified	Not specified	3 CR	Not specified	2 neurological events, grade 3
Ping et al ⁶ 2019	1 (secondary cns from primary testicular lymphoma)	CAR-T cells targeting CD19 or CD20	63	1	-	significant improvement at 13 months		

Table 2: CART cell Therapy in PTLD

Author	Cases	Treatment	Age	Male	Female	Outcome	Lines of therapy	Comments
Dang et al ⁷ 2020	1 PTLD after heart transplant	Axicabtagene Ciloleucel	17	-	1	CR at 6 months	4	CRS Grade 1, Headache Grade 3, persistent fevers
Wang et al ⁸ 2021	1 PTLD after liver transplantation	Anti CD 19 CART cell product	2	1	-	DFS 16 months	?	
Krishnamoorthy et al ⁹ 2020	1 heart, 1 kidney, 1 kidney/pancreas	Axicabtagene ciloleucel	54,54,71	2	1	Dead at day 15; 44; 115 after CART	2-3	3 CRS, 3 ICANS
Mamlouk et al ¹⁰ 2021	3 PTLD after Kidney transplantation	Axicabtagene ciloleucel	38, 41, 44	3	-	1 ongoing CR at 3 months	2-3	

Table 3: Checkpoint-Inhibition in PTLD

Authors	Disease	Treatment	Age	Male	Female	Outcome	Lines of therapy	Comments
Kassa et al ¹¹ 2018	CNS PTLD after allogenic stemcell transplantation	Nivolumab	11	-	1	CR at 12 months under ongoing Nivolumab Infusions	3	No GVHD, graft failure, no auto-immune-effects

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