

Efficacy and safety of chimeric antigen receptor T-cell therapy for plasma cell leukemia

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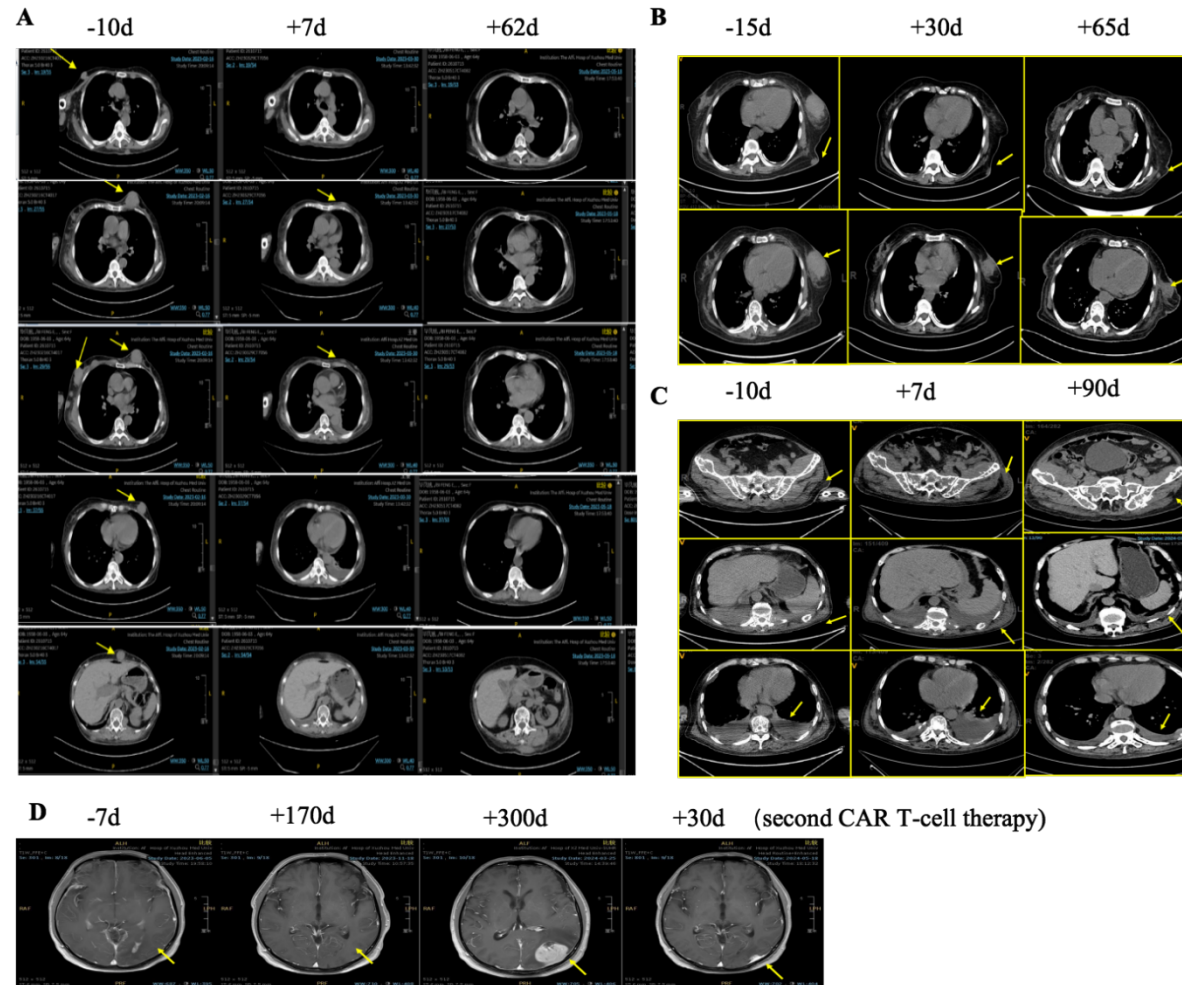


Supplementary information

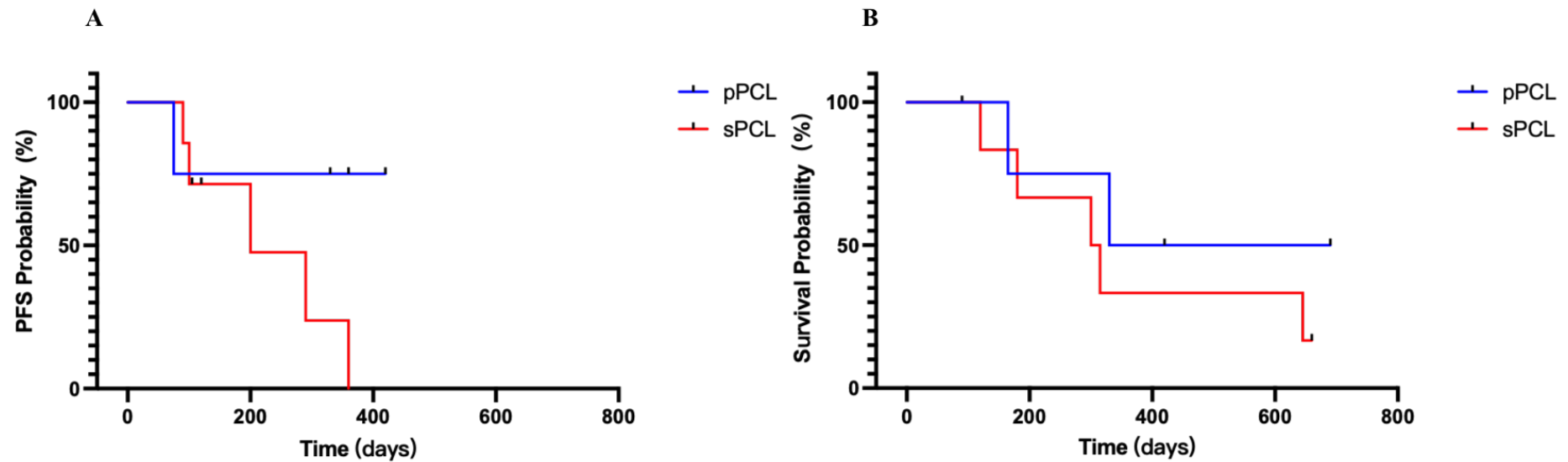
Table S1. Patients and treatment characteristics

Patient no./ Gender/Age	PCL type	Types Serum Protein Electrophoresis	Type of CAR T-cell	CAR T-cell dose (10 ⁶ /kg)	Response (Day 28)	Best response	Months until relapse/progression after CAR T	Subsequent follow up (months after CAR T)	Second relapse (best response, months)	Survival (months from first CAR T)
1/M/41	pPCL	λ Light chain	BCMA	2	sCR, MRD Neg	sCR	No	Allo-HSCT (4)	No	11
2/F/62*	pPCL	Nonsecretory	GPRC5D	2	PR, MRD Neg	PR	2.5	BCMA-C (2.6)	Yes (PR, 2)	5.5
3/F/70	pPCL	IgG-κ	BCMA	1.6	PR, MRD Neg	PR	No	ND	No (PR,14 +)	14 +
4/M/57*	pPCL	IgD-λ	GPRC5D	4	PR, MRD Neg	CR	10	BCMA-C (11)	No (PR,12+)	23+
5/F/39	sPCL	IgG-κ	BCMA	1.5	VGPR, MRD Neg	VGPR	3.5	GPRC5D-C (5)	Yes (CR, 3)	10
6/M/54	sPCL	IgA-λ	BCMA	1.5	CR, MRD Neg	CR	No	ND	No	4
7/M/51	sPCL	IgG-κ	BCMA	2	VGPR, MRD Neg	CR	10	ND	No	10.5
8/M/61	sPCL	IgD-λ	GPRC5D	2	VGPR, MRD Neg	sCR	6	BCMA-C (10)	No (sCR,12 +)	22 +
9/F/61*	sPCL	IgD-λ	BCMA	0.5	CR, MRD Neg	CR	12	GPRC5D-C (14)	Yes (PR, 5.5)	21.5
10/M/57*	sPCL	IgG-κ	GPRC5D	2	PR, MRD Neg	PR	3	ND	No	6
11/M/41	sPCL	IgA-λ	GPRC5D	4	sCR, MRD Neg	sCR	No	ND	No	3+

Abbreviation: M, male; F, female; pPCL, primary plasma cell leukemia; sPCL, secondary plasma cell leukemia; CAR, chimeric antigen receptor; Allo-HSCT, allogeneic hematopoietic stem cell transplantation; BCMA-C, B-cell maturation antigen CAR T-cell; GPRC5D-C, G protein-coupled receptor, class C group 5 member D-CAR T-cell; sCR, stringent complete response; CR, complete response; VGPR, very good partial response; PR, partial response; MRD, minimal residual disease; ND, not done; +, still alive ; *, Patients with soft tissue involvement.



Supplementary Figure 1. Imaging findings of extramedullary involvement before and after CAR T-cell therapy . (A-C) Chest CT images from Patient 2, 9, and 10 demonstrate representative extramedullary lesions (yellow arrows). (D) Brain MRI image from Patient 4 shows a solitary metastatic lesion (yellow arrow). CAR, chimeric antigen receptor.



Supplementary Figure 2. Kaplan-Meier curves depicting outcomes based on disease subtype. (A) Progression-free survival (PFS) and (B) Survival for patients with primary plasma cell leukemia (pPCL) versus secondary plasma cell leukemia (sPCL).