

ORIGINAL RESEARCH ARTICLE

CXCR6 expression as a predictive biomarker for immunotherapy responsiveness in nasopharyngeal carcinoma

Supplementary Files

Table S1. Summary of patient demographics

Baseline characteristics	Total (n=50)	Toripalimab+GP (n=27)	Placebo+GP (n=23)	p
Gender				0.338
Female	13 (26.0)	9 (33.3)	4 (17.4)	
Male	37 (74.0)	18 (66.7)	19 (82.6)	
Ethnicity				NA
Asian	50 (100.0)	27 (100.0)	23 (100.0)	
Other	0 (0)	0 (0)	0 (0)	
ECOG performance score				0.701
0	39 (78.0)	20 (74.1)	19 (82.6)	
1	11 (22.0)	7 (25.9)	4 (17.4)	
Histology				NA
Non-keratinizing squamous cell carcinoma	50 (100.0)	27 (100.0)	23 (100.0)	
Other	0 (0)	0 (0)	0 (0)	
Smoking status				1
Yes	21 (42.0)	11 (40.7)	10 (43.5)	
No	29 (58.0)	16 (59.3)	13 (56.5)	
Alcohol use				0.361
Yes	8 (16.0)	6 (22.2)	2 (8.7)	
No	42 (84.0)	21 (77.8)	21 (91.3)	
Frequency of chemotherapy				0.157
<4	2 (4.0)	2 (7.4)	0 (0.0)	
4–6	2 (4.0)	2 (7.4)	0 (0.0)	
6	46 (92.0)	23 (85.2)	23 (100.0)	
ICI treatment				0.144
<6	4 (8.0)	4 (14.8)	0 (0.0)	
6–20	39 (78.0)	20 (74.1)	19 (82.6)	
>20	7 (14.0)	3 (11.1)	4 (17.4)	
Age (years)				0.107
≤50	31 (62.0)	20 (74.1)	11 (47.8)	
>50	19 (38.0)	7 (25.9)	12 (52.2)	
Metastatic site at baseline				0.306
Liver	20 (40.0)	15 (55.6)	5 (21.7)	
Lung	20 (40.0)	11 (40.7)	9 (39.1)	
Bone	27 (54.0)	13 (48.1)	14 (60.9)	
Other	3 (6.0)	2 (7.4)	1 (4.3)	
Serum EBV copy number at baseline (copies/mL)				0.85
<500	5 (10.0)	2 (7.4)	3 (13.0)	
≥500	45 (90.0)	25 (92.6)	20 (87.0)	
PD-L1 status				0.626
Positive	30 (60.0)	15 (55.6)	15 (65.2)	
Negative	16 (32.0)	9 (33.3)	7 (30.4)	
NA	4 (8.0)	3 (11.1)	1 (4.3)	

Notes: All data presented as n (%). PD-L1 positivity was defined as ≥1% of tumor cells or ≥1% of immune cells expressing PD-L1 by JS311 immunohistochemical staining.

Abbreviations: EBV: Epstein–Barr virus; ECOG: Eastern Cooperative Oncology Group; GP: Gemcitabine–cisplatin; ICI: Immune checkpoint inhibitor; NA: Not available; PD-L1: Programmed death-ligand 1.

Table S2. Summary of patient demographics in the toripalimab+gemcitabine–cisplatin group

Baseline characteristics	Total (n=27)	PFS < 9 months (n=8)	PFS > 9 months (n=19)	p
Gender				0.68
Female	9 (33.3)	2 (25.0)	7 (36.8)	
Male	18 (66.7)	6 (75.0)	12 (63.2)	
Ethnicity				NA
Asian	27 (100.0)	8 (100.0)	19 (100.0)	
Other	0 (0)	0 (0)	0 (0)	
ECOG performance score				1
0	20 (74.1)	6 (75.0)	14 (73.7)	
1	7 (25.9)	2 (25.0)	5 (26.3)	
Histology				NA
Non-keratinizing squamous cell carcinoma	27 (100.0)	8 (100.0)	19 (100.0)	
Other	0 (0)	0 (0)	0 (0)	
Smoking status				1
Yes	11 (40.7)	3 (37.5)	8 (42.1)	
No	16 (59.3)	5 (62.5)	11 (57.9)	
Alcohol use				1
Yes	6 (22.2)	2 (25.0)	4 (21.1)	
No	21 (77.8)	6 (75.0)	15 (78.9)	
Frequency of chemotherapy				0.01
<4	2 (7.4)	2 (2.2)	0 (0.0)	
4-6	2 (7.4)	2 (2.2)	0 (0.0)	
6	23 (85.2)	4 (95.6)	19 (100.0)	
ICI treatment				0.01
<6	4 (14.8)	4 (50.0)	0 (0.0)	
6-20	20 (74.1)	4 (50.0)	16 (84.2)	
>20	3 (11.1)	0 (0.0)	3 (15.8)	
Age (years)				0.63
≤50	20 (74.1)	5 (62.5)	15 (78.9)	
>50	7 (25.9)	3 (37.5)	4 (21.1)	
Metastatic site at baseline				1
Liver	15 (55.6)	3 (37.5)	12 (63.2)	
Lung	11 (40.7)	2 (12.0)	9 (47.1)	
Bone	13 (48.1)	3 (37.5)	11 (57.8)	
Other	2 (7.4)	0 (0.0)	2 (10.5)	
Serum EBV copy number at baseline (copies/mL)				1
<500	2 (7.4)	0 (0.0)	2 (10.5)	
≥500	25 (92.6)	8 (100.0)	17 (89.5)	
PD-L1 status				1
Positive	15 (55.6)	4 (50.0)	11 (57.8)	
Negative	9 (33.3)	3 (37.5)	6 (31.6)	
NA	3 (11.1)	1 (12.5)	3 (10.6)	

Notes: All data presented as n (%). PD-L1 positivity was defined as ≥1% of tumor cells or ≥1% of immune cells expressing PD-L1 by JS311 immunohistochemical staining.

Abbreviations: EBV: Epstein–Barr virus; ECOG: Eastern Cooperative Oncology Group; GP: Gemcitabine–cisplatin; ICI: Immune checkpoint inhibitor; NA: Not available; PD-L1: Programmed death-ligand 1.