

SUPPLEMENTARY INFORMATION

TITLE: Tumor PD-L1 Expression and Clinical Outcomes in Advanced-stage Non-Small Cell Lung Cancer Patients Treated with Nivolumab or Pembrolizumab: Real-World Data in Taiwan

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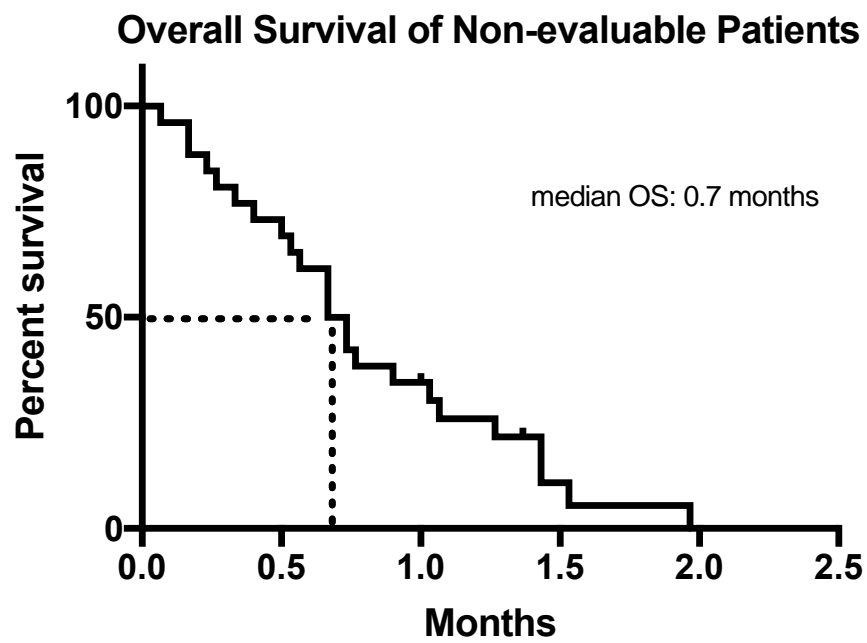
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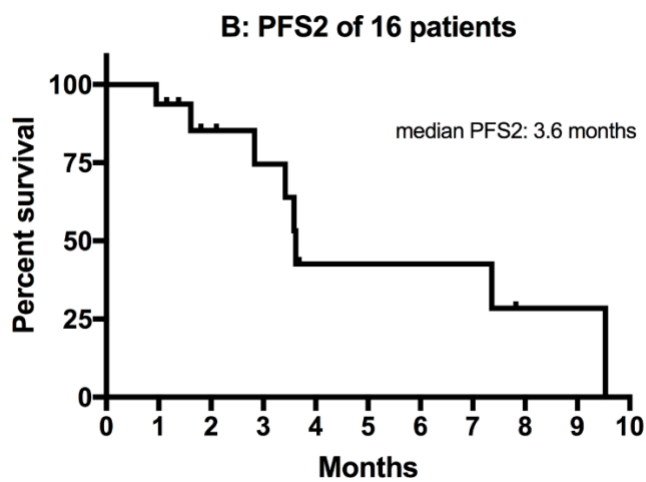
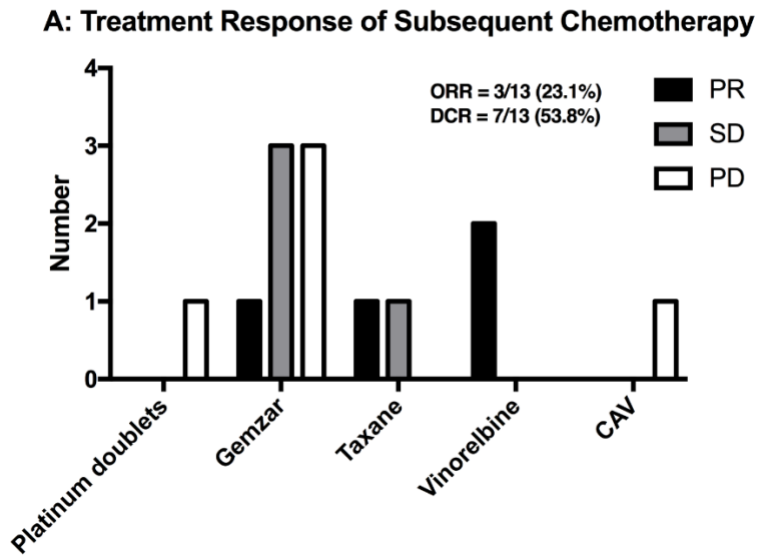
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Figure S1- Overall survival of patients with non-evaluable treatment response.



OS: overall survival.

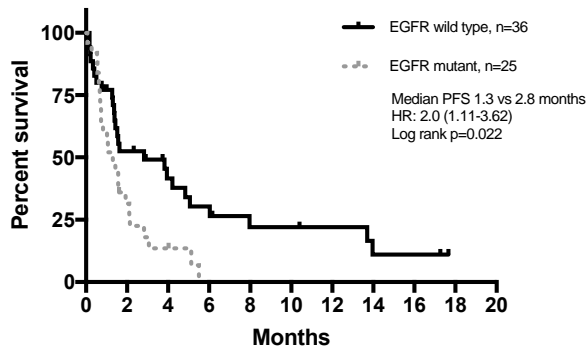
Figure S2A: Treatment response of subsequent chemotherapy after immunotherapy; S2B: Kaplan-Meier curve showing PFS2 of 16 patients receiving subsequent chemotherapy.



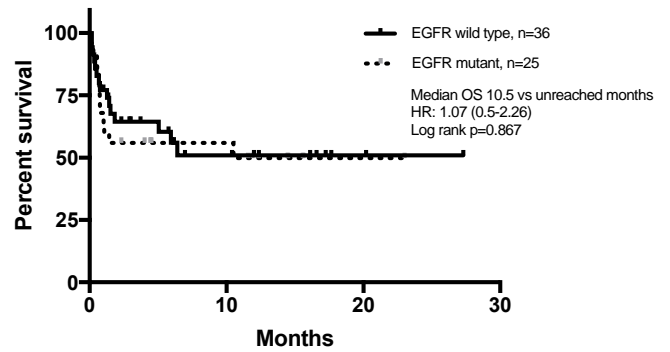
CAV: cyclophosphamide, Adriamycin and vincristine; DCR, disease control rate; ORR, objective response rate; PFS: progression free survival; PR, partial response; PD, progression of disease; SD, stable disease.

Figure S3: Kaplan-Meier curves of (A) Progression free survival and (B) Overall survival stratified by EGFR status (C) Progression free survival and (D) Overall survival stratified by KRAS status

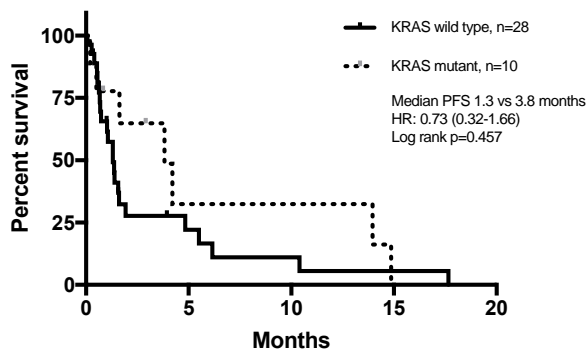
A: Progression free survival stratified by EGFR status



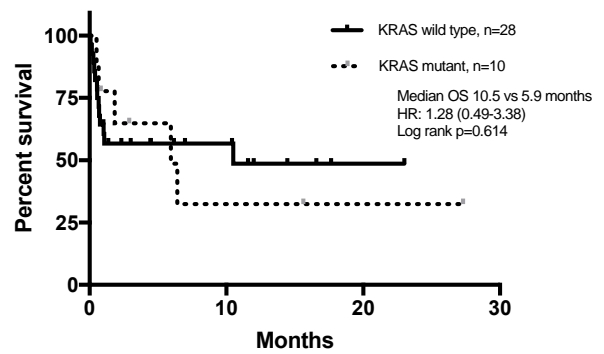
B: Overall survival stratified by EGFR status



C: Progression free survival stratified by KRAS status



D: Overall survival stratified by KRAS status



EGFR: epidermal growth factor receptor, HR: hazard ratio, OS: overall survival, PFS: progression free survival, KRAS: Kirsten rat sarcoma virus oncogene homolog

Table S1: Demographic data of non-evaluable patients

Characteristics (n=27)	n	
Age, median (range)	62.2	39.3-83.3
Male, %	12	44.4%
Stage IIIB/IV	0/27	
Smokers, %	9	33.3%
Histology, %		
Adenocarcinoma	21	77.8%
Squamous cell carcinoma	3	11.1%
Pleomorphic carcinoma	1	3.7%
Lymphoepithelioma-like carcinoma	1	3.7%
Poorly differentiated carcinoma	1	3.7%
ECOG >2, before anti-PD-1 treatment	24	88.9%
Radiotherapy before anti-PD-1 treatment	18	66.7%
Nivolumab/Pembrolizumab	5/22	
Anti-PD-1 as ≥ 3 L treatment	21	77.8%
Cycles of IO treatment (range)	1	1
Previous Lines of Treatment, median (range)	4	10
Brain metastasis, %	11	40.7%
EGFR mutation, %	9/23	39.1%
KRAS mutation, %	3/12	25%
PD-L1 status,%		
$\geq 50\%$	2/6	33.3%
1-50%	2/6	33.3%
<1%	2/6	33.3%

Abbreviations: ECOG, Eastern Cooperative Oncology Group performance status; EGFR: epidermal growth factor receptor; KRAS: Kirsten rat sarcoma virus oncogene homolog; PD-1: programmed death 1

Table S2: Best treatment response according to EGFR, KRAS mutation and PD-L1 expression

	EGFR		KRAS	
	WT	Mutation	WT	Mutation
Evaluable patients	n=22	n=16	n=16	n=7
PR	10 (45%)	2 (13%)	4 (25%)	3 (43%)
SD	8 (37%)	3 (18%)	4 (25%)	3 (43%)
PD	4 (18%)	11 (69%)	8 (50%)	1 (14%)
PD-L1\geq50%	n=11	n=3	n=5	n=3
PR	6	1	2	0
SD	4	1	2	3
PD	1	1	1	0
PD-L1 1-50%	n=6	n=4	n=6	n=3
PR	3	0	1	2
SD	2	0	1	0
PD	1	4	4	1
PD-L1<1%	n=2	n=3	n=3	n=0
PR	0	1	1	0
SD	0	1	1	0
PD	2	1	1	0

Abbreviations: EGFR: epidermal growth factor receptor; KRAS: Kirsten rat sarcoma virus oncogene homolog; PD-L1: programmed death ligand 1; PD: disease progression; PR: partial response; SD: stable disease; WT: wild type