Exploratory biomarker analysis of ociperlimab (OCI) plus tislelizumab (TIS) in patients (pts) with PD-L1-positive non-small cell lung cancer (NSCLC) in AdvanTIG-105

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Background: OCI (anti-TIGIT) plus TIS (anti-PD-1) may enhance antitumor immune responses in advanced solid tumors. We present a retrospective biomarker analysis of pts in AdvanTIG-105 (NCT04047862), a phase 1/1b open-label study of OCI plus TIS for treatment-naïve metastatic non-squamous (NSQ) and squamous (SQ) PD-L1-positive (TC≥1%) NSCLC.

Methods: Pts in cohort 3 (n=46) were treated with 900 mg OCI plus 200 mg TIS. Pts in cohort 10 (n=68) were treated with 450 mg (Arm A), 900 mg (Arm B), or 1800 mg (Arm C) OCI plus 200 mg TIS. Baseline tumor tissue was used to measure PD-L1 and TIGIT expression (SP263 and SP410 IHC assays). Gene expression profiling (GEP) was performed using TrueSeq RNA Access (Illumina); gene signature scores were evaluated with ssGSEA. Progression-free survival (PFS) hazard ratio (HR) was calculated by Cox proportional hazards regression.

Results: At Aug 2024 data cutoff, median follow-up was 19.7 months (range: 0.7-41.6 mo) for cohort 3 and 9.8 mo (range: 0.3-21.4 mo) for cohort 10. Baseline characteristics, overall response rate (ORR), and PFS were comparable across cohorts and between biomarker-evaluable and intent-to-treat (ITT) pts. PD-L1 ≥25% vs <25% and TIGIT ≥5% vs <5% subgroups were associated with a trend toward higher ORR and longer PFS, with greater increment in pts with NSQ- vs SQ-NSCLC (**Table**). PD-L1/TIGIT double high subgroup showed further enriched clinical efficacy in NSCLC (**Table**). Anti-TIGIT mechanism of action-related GEP signatures (NK cells, Treg, macrophages) were associated with a trend toward longer PFS primarily in pts with NSQ-NSCLC.

Conclusions: Pts with NSCLC with PD-L1 ≥25%, TIGIT ≥5%, or PD-L1/TIGIT double high can achieve a trend toward longer PFS and higher ORR than PD-L1 low or TIGIT low subgroups

when treated with OCI plus TIS. Longer PFS in PD-L1≥25% or TIGIT ≥5% subgroups in NSQ- vs SQ-NSCLC may be associated with biological differences in histology. Confirmation of these results will require prospective evaluation of OCI plus TIS in randomized studies.

	Subgroup	mPFS (mo)	ORR (%)
NSCLC	Evaluable pts (n=113)	5.5	34.5
	PD-L1 ≥25% vs <25% (n=57 vs 56)	6.9 vs 4.2 HR 0.58 (95% CI, 0.37, 0.9)	47 vs 22
	TIGIT ≥5% vs <5% (n=62 vs 48)	6.8 vs 4.1 HR 0.64 (95% CI, 0.41, 1)	45 vs 19
	PD-L1/TIGIT double positive vs other (n=38 vs 72)	8.3 vs 4.2 HR 0.53 (95% CI, 0.33, 0.86)	55 vs 22
NSQ-NSCLC	PD-L1 ≥25% vs <25% (n=35 vs 32)	8.3 vs 4.2 HR 0.55 (95% CI, 0.32, 0.98)	49 vs 19
	TIGIT ≥5% vs <5% (n=36 vs 29)	6.5 vs 4.1 HR 0.53 (95% CI, 0.3, 0.94)	50 vs 14
SQ-NSCLC	PD-L1 ≥25% vs <25% (n=22 vs 24)	5.5 vs 5.3 HR 0.63 (95% CI, 0.35, 1.29)	45 vs 25
	TIGIT ≥5% vs <5% (n=26 vs 19)	5.5 vs 5.5 HR 0.93 (95% CI, 0.46, 1.87)	38 vs 26