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First-line Osemitamab plus Nivolumab and CAPOX for Advanced G/GEJ Cancer (TranStar102) – Updated Efficacy Analysis of Cohort G by CLDN18.2 and PD-L1 Expression from a Phase I/II Study

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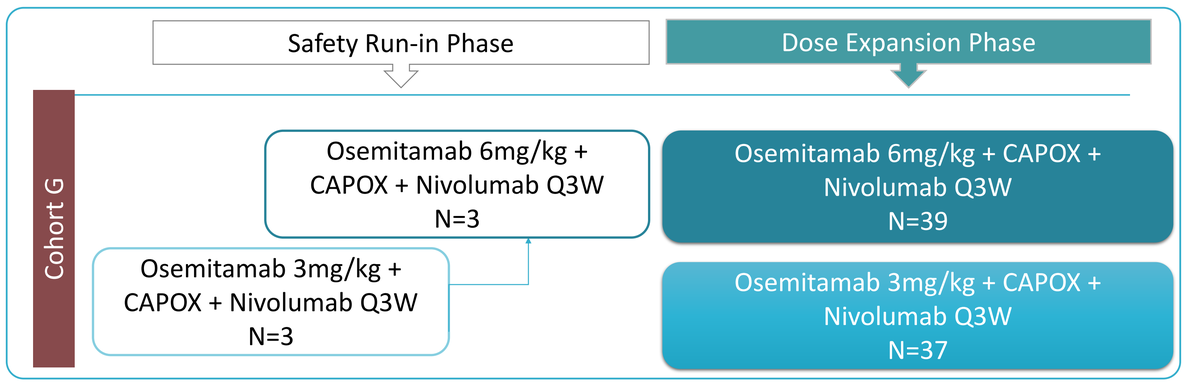
BACKGROUND

- Osemitamab is a humanized monoclonal antibody with improved affinity to claudin 18.2 (CLDN18.2) and has been observed to upregulate PD-L1 expression on CLDN18.2-positive tumor cells.
- *In vivo* anti-tumor activity of osemitamab + anti-PD-1/PD-L1 antibody + chemotherapy was significantly stronger than any of the doublet combinations, regardless of PD-L1 CPS levels, making the triplet of osemitamab, nivolumab and CAPOX an attractive combination.
- Promising efficacy of osemitamab plus CAPOX and nivolumab as first-line treatment for gastric or gastroesophageal junction (G/GEJ) cancer has been observed and reported previously at ASCO 2025. Here we report the exploratory efficacy analysis based on CLDN18.2 and PD-L1 expressions.

METHODS

- Cohort G from Transtar102 study (NCT04495296) was designed to evaluate the safety and preliminary efficacy of osemitamab at two dose levels (3 mg/kg or 6 mg/kg Q3W) plus nivolumab and CAPOX as first-line treatment in patients with G/GEJ cancer (Figure 1).
- Key eligible criteria included HER2 negative or unknown, unresectable locally advanced or metastatic G/GEJ cancer, regardless of CLDN18.2 or PD-L1 expression and treatment naïve for advanced disease. CLDN18.2 and PD-L1 status were analyzed retrospectively using IHC 14G11 LDT assay and PD-L1 IHC 28-8 pharmDx at a central laboratory.

Figure 1. Study Design



- Efficacy endpoints of progression-free survival (PFS), objective response rate (ORR), and overall survival (OS) were evaluated in the patients with known PD-L1 & CLDN18.2 expression to minimize the risk of possible bias due to unknown PD-L1 expression. PD-L1 positive was defined as PD-L1 CPS≥1. The CLDN18.2 expression was divided into two subgroups: (≥40%, ≥2+) or <(40%, ≥2+) according to the tumor cells showing membranous CLDN18.2 staining. Comparisons were made across the subsets by CLDN18.2 expression levels as an alternative approach (expected weaker effect of osemitamab if lower CLDN18.2 expression) to estimate the possible effect size due to lack of "real" control.

RESULTS

- As of Oct 14, 2025, a total of 82 patients were dosed with osemitamab + nivolumab + CAPOX with median follow-up of 25.8 months. 66 patients had CLDN18.2 & PD-L1 CPS test results, including 26 patients with CLDN18.2 ≥40%, ≥2+, 40 patients with CLDN18.2 < (40%, ≥2+). The results focus on 66 patients with PD-L1 & CLDN18.2 known.

- The baseline demographics of patients across CLDN18.2 or PD-L1 expression level are generally similar. More patients had GC, peritoneum metastasis and ECOG PS 1 in CLDN18.2 higher expressors, while more patients had GEJC, liver metastasis and gastrectomy treatment in the CLDN18.2 lower expressors. Approximate 60% of patients were with PD-L1 CPS<1 across the CLDN18.2 subgroups and overall population. (Table 1).

Table 1. Demographic and Baseline Characteristics

PD-L1 CPS & CLDN18.2 Known N=66		CLDN18.2 ≥40%, ≥2+ (N=26)	CLDN18.2<(40%, ≥2+) (N=40)	Overall (N=66)
Age at Consent (years)	Median	55	61	58
	Min, Max	27, 72	41, 76	27, 76
Sex, n (%)	Male	16 (61.5)	33 (82.5)	49 (74.2)
ECOG Performance Status, n (%)	0	2 (7.7)	12 (30.0)	14 (21.2)
	1	24 (92.3)	28 (70.0)	52 (78.8)
Cancer Type, n (%)	GC	25 (96.2)	34 (85.0)	59 (89.4)
	GEJC	1 (3.8)	6 (15.0)	7 (10.6)
Gastrectomy, n (%)	None	23 (88.5)	26 (65.0)	49 (74.2)
	Yes	3 (11.5)	14 (35.0)	17 (25.8)
PD-L1 CPS-Central Result, n (%)	< 1	16 (61.5)	24 (60.0)	40 (60.6)
	≥1	10 (38.5)	16 (40.0)	26 (39.4)
Metastasis status at study entry, n (%)	M1	26 (100)	39 (97.5)	65 (98.5)
No. of Metastasis sites, n (%)	0-2	18 (69.2)	29 (72.5)	47 (71.2)
	≥3	8 (30.8)	11 (27.5)	19 (28.8)
Sites of Metastasis, n (%)	Hepatic	7 (26.9)	22 (55.0)	29 (43.9)
	Peritoneum	9 (34.6)	4 (10.0)	13 (19.7)
	Pulmonary	2 (7.7)	9 (22.5)	11 (16.7)

- The safety profile was similar to the previously presented data (2025 ASCO poster).
- The exploratory efficacy analysis showed the encouraging results in patients with higher CLDN18.2 expression, with a median PFS of 16.6 months, ORR of 68% and median DoR of 18 months. (Table 2)

Table 2. Tumor Response and Durable Anti-tumor Effect

Population with CLDN18.2 & PD-L1 CPS known	PD-L1, all comers N=66		PD-L1, CPS<1 N=40		PD-L1, CPS ≥1 N=26	
By CLDN18.2	≥40%, ≥2+ n=26	< (40%, ≥2+) n=40	≥40%, ≥2+ n=16	< (40%, ≥2+) n=24	≥40%, ≥2+ n=10	< (40%, ≥2+) n=16
ORR, %	68	55.3	60	47.8	80	66.7
mDoR, month	18.0	8.2	16.5	4.2	19.4	13.7
mPFS,	16.6	7.1	8.2	5.8	16.6	8.8
month	HR=0.57		HR=0.54		HR=0.76	

- Better PFS outcomes were observed in patients with higher CLDN18.2 expression compared to lower CLDN18.2 expressors in both PD-L1 CPS<1 and ≥ 1 subgroups, which indicated the potential treatment benefit of osemitamab is consistent regardless of PD-L1 expression. (Figure 2, 3, 4)

Figure 2. Progression-Free Survival –Patients with CLDN18.2 & PD-L1 CPS Known, Overall

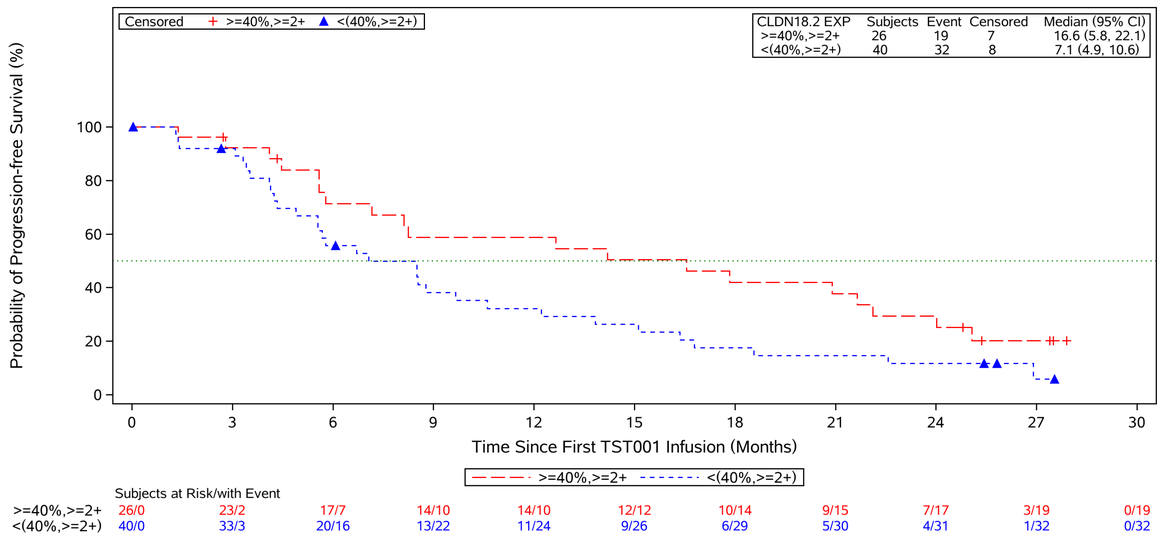


Figure 3. Progression-Free Survival –Patients with CLDN18.2 & PD-L1 CPS Known, CPS<1

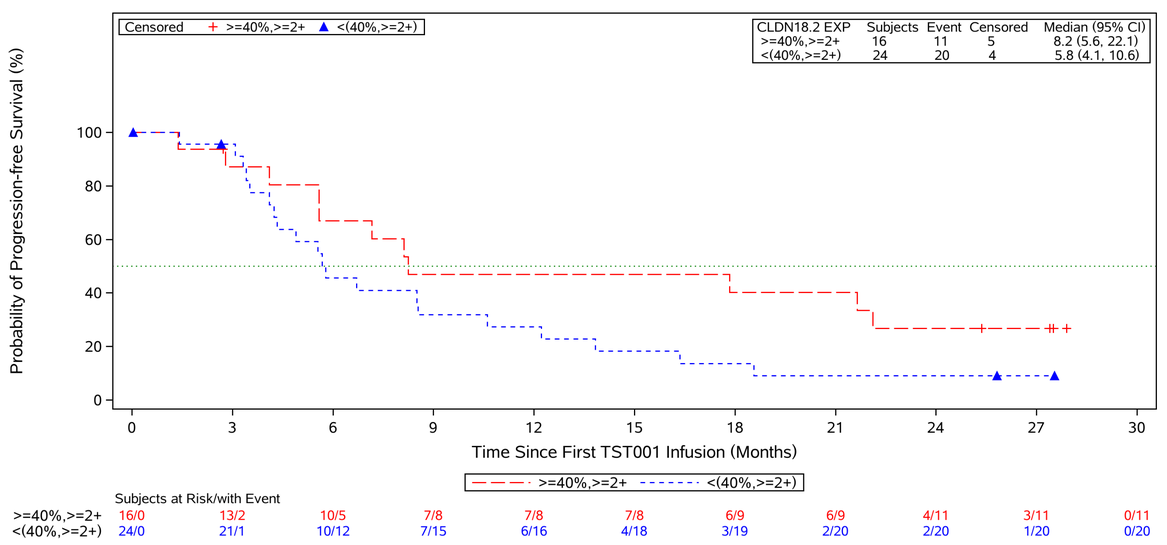
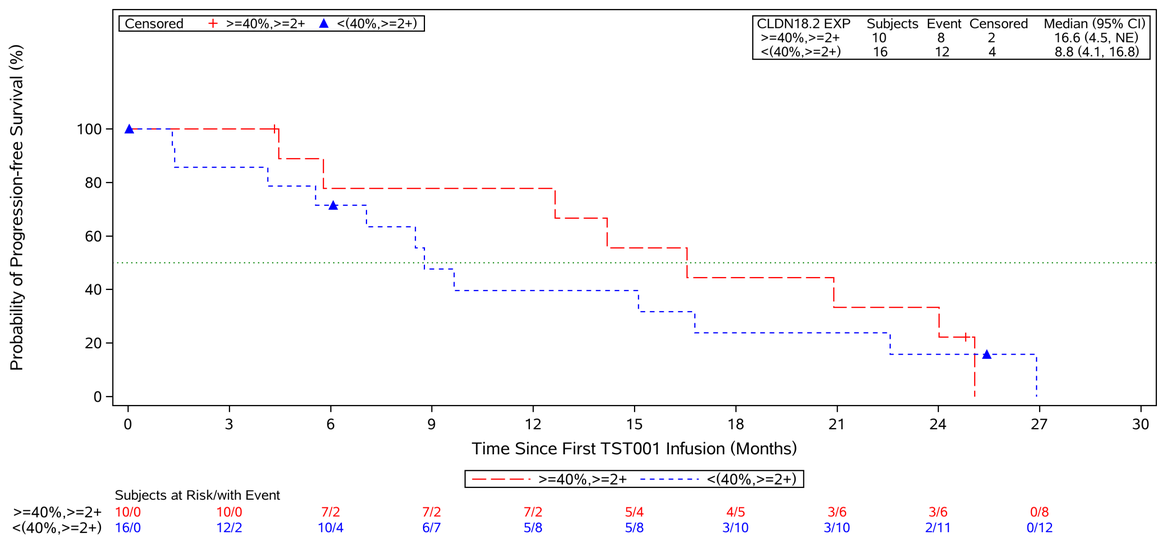


Figure 4. Progression-Free Survival –Patients with CLDN18.2 & PD-L1 CPS Known, CPS≥1



CONCLUSION

- The updated data indicate that the combination of TST001 plus nivolumab and CAPOX for first-line treatment of patients with G/GEJ cancer is safe and well tolerated.
- The exploratory efficacy analysis indicates that encouraging benefit of osemitamab in combination with standard of care in patients with G/GEJ cancer and the potential treatment benefit of osemitamab is consistent regardless of PD-L1 expression.

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