RATIONALE-315: Association of residual viable tumor (RVT) and nodal status with survival benefit for patients (Pts) with resectable non-small cell lung cancer (NSCLC) treated with perioperative tislelizumab (TIS)

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Background

In RATIONALE-315 (NCT04379635), perioperative (periop) TIS + neoadjuvant chemotherapy (neoadj CT) showed significant improvement vs placebo (PBO) + neoadj CT in median event-free survival (mEFS) and overall survival (mOS) in pts with resectable stage II-IIIA NSCLC. This post hoc analysis explored how pathologic regression by RVT% and lymph node (LN) status impacts survival in RATIONALE-315 pts with stage II vs IIIA disease.

Methods

Pts with untreated stage II-IIIA NSCLC were randomized (1:1) to neoadj TIS + CT or PBO + CT, then surgery and adjuvant TIS or PBO. Endpoints included EFS (primary) and OS (secondary).

Results

As of March 7, 2025, 363/453 (80.1%) pts had surgery following neoadj treatment (tx; TIS + CT n=190; PBO + CT n=173), of whom 361 (79.7%) had evaluable tumors (TIS n=189; PBO n=172). Disease was stage II in 143/363 (39.4%) pts and stage IIIA in 217/363 (59.8%). For periop TIS + CT vs PBO + CT, 67.7% vs 19.8% of evaluable pts had 0-10% RVT, 14.3% vs 34.9% had 10-50%

RVT and 18.0% vs 45.3% had >50% RVT; 2-year EFS rates (95% CI) were 79.6% (71.3-85.7), 67.4% (45.2-82.2), and 44.7% (25.8-62.0), respectively, for TIS + CT. mEFS/mOS were not reached with TIS + CT in surgery pts and trended favorably vs PBO + CT, regardless of LN involvement/disease stage. Table shows 2-year EFS rates in surgery pts (median [range] follow-up: 40.1 [2.7-57.0] mos).

Conclusions

Periop TIS + neoadj CT improved survival in stage II-IIIA NSCLC, including pts who received surgery with RVT or LN disease. More neoadj TIS + CT vs PBO + CT treated pts had lower RVT%, which correlated with improved 2-year EFS. This comprehensive analysis by RVT% and LN status regardless of disease stage further supports periop TIS as a tx option for pts with resectable NSCLC. These findings may support tx decisions (ie, adjuvant strategies) by elucidating tx response in specific pt subgroups.

Table (591/600 characters)

	TIS + CT	**PBO + CT**
	n **2-year EFS rate, % (95% CI)**	
Surgery pts	190 72.6 (65.3-78.6)	173 60.1 (51.7-67.4)
pCR	92 86.5 (77.4-92.1)	13 69.2 (37.3-87.2)
Stage II	74 82.0 (70.4-89.3)	69 67.4 (53.7-77.8)
pCR	35 93.9 (77.9-98.4)	5 80.0 (20.4-96.9)
cT2b-T3N0	33 83.1 (64.0-92.6)	36 69.1 (49.0-82.6)
cT1-T2N1	41 81.0 (64.3-90.5)	33 65.6 (45.5-79.8)
Stage IIIA	114 66.2 (56.4-74.3)	103 54.9 (44.1-64.5)
pCR	55 81.4 (68.1-89.5)	8 62.5 (22.9-86.1)
N+	100 66.1 (55.6-74.7)	98 54.0 (42.9-63.8)
cN+	142 70.5 (61.9-77.5)	132 57.2 (47.7-65.6)
cN0	48 78.7 (63.1-88.3)	41 69.9 (51.3-82.5)
cN1/ypN0	60 81.9 (69.0-89.9)	41 78.9 (62.3-88.9)
cN2/ypN0-N1	48 76.0 (60.9-85.9)	39 58.3 (40.7-72.4)

pCR, pathologic complete response