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EARLY STAGE NSCLC

80O Atezolizumab (atezo) vs best supportive care (BSC) in stage II-IIIA NSCLC with high PD-L1 expression: Sub-analysis from the pivotal phase III IMpower010 study

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Background: IMpower010 showed significant DFS benefit with atezo after adjuvant chemo in resected NSCLC (Felip Lancet 2021). At the interim DFS analysis, the significance boundary was crossed for the stage II-IIIA PD-L1 TC ≥1% population (stratified HR, 0.66; 95% CI: 0.50, 0.88), with greatest benefit in the PD-L1 TC ≥50% subgroup (unstratified HR, 0.43; 95% CI: 0.27, 0.68). Here we present further analyses in PD-L1 TC ≥50% stage II-IIIA NSCLC pts.

Methods: IMpower010 (NCT02486718) study design and primary DFS analysis details have been reported (Felip Lancet 2021). DFS in PD-L1 TC ≥50% (VENTANA SP263 assay) stage II-IIIA (UICC/AJCC v7) pts was a prespecified secondary endpoint; additional subgroup data reported are exploratory.

Results: Baseline characteristics were generally balanced for atezo- vs BSC-arm pts with PD-L1 TC ≥50% stage II-IIIA NSCLC (male, 77% vs 68%; stage III, 46% vs 50%; nonsquamous, 59% vs 61%). Median follow-up was 34.2 mo (21 Jan 2021 cutoff). See the table for DFS subgroup data. Safety in PD-L1 TC ≥50% stage II-IIIA pts was consistent with that of the overall study population and known safety profile of atezo. Initial disease relapse in this population was locoregional-only in 15/25 atezo-arm pts (60%) vs 17/50 BSC-arm pts (34%) and distant-only in 6/25 (24%) vs 21/50 (42%); initial CNS-only relapse was seen in 1/25 (4%) vs 7/50 (14%). 19 relapsing atezo-arm pts (76%) vs 30 BSC-arm pts (60%) had subsequent systemic therapy (mostly chemo, 60% vs 32%; immunotherapy, 16% vs 38%).

Table: 80O Interim DFS: PD-L1 TC ≥50% stage II-IIIA

	Pts, n		Unstratified DFS HR (95% CI)
	Atezo	BSC	
Age			
<65 y	71	70	0.49 (0.27, 0.89)
≥65 y	44	44	0.36 (0.17, 0.75)
Sex			
Male	89	78	0.50 (0.28, 0.89)
Female	26	36	0.34 (0.15, 0.76)
Histology			
Squamous	47	45	0.60 (0.29, 1.26)
Nonsquamous	68	69	0.36 (0.20, 0.65)
Stage			
II	62	57	0.51 (0.26, 1.00)
IIIA	53	57	0.38 (0.20, 0.72)
Regional LN			
N0	30	21	1.09 (0.39, 3.07)
N1	43	52	0.29 (0.12, 0.72)
N2	42	41	0.35 (0.18, 0.68)
Smoking status			
Current/former	99	99	0.40 (0.24, 0.68)
Never	16	15	0.46 (0.17, 1.25)
EGFR/ALK mutation			
Detected	9	11	0.26 (0.06, 1.02)
Undetected	52	54	0.41 (0.20, 0.84)
Unknown	54	49	0.45 (0.23, 0.91)

DFS event/pts: atezo, 28/115 (24%); BSC, 52/114 (46%).

Conclusions: IMpower010 pts with PD-L1 TC ≥50% stage II-IIIA NSCLC derived DFS benefit with atezo vs BSC at the interim DFS analysis. Data were consistent across most subgroups, albeit with limited pt numbers in this post hoc analysis. Numerically, more distant and CNS relapses were seen with BSC. The tolerability profile of atezo was in line with the overall population, demonstrating a positive benefit-risk profile.

Clinical trial identification: NCT02486718.

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81MO Osimertinib as neoadjuvant therapy in patients with EGFR mutated resectable stage II-IIIB lung adenocarcinoma (NEOS): Updated results

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Background: Previously, the interim analysis of the multicenter, single-arm, phase 2 NEOS study (ChiCTR1800016948) demonstrated the promising efficacy and tolerable safety profile of neoadjuvant osimertinib in patients with resectable EGFR mutated NSCLC. Here we present the final efficacy and safety results of neoadjuvant osimertinib.

Methods: Eligible patients aged 18-75 with resectable, stage II-IIIB (T3-4N2), EGFR-mutant lung adenocarcinoma were enrolled and treated with osimertinib 80 mg once daily for six weeks followed by surgical resection. The primary endpoint was objective response rate assessed by investigator per RECIST v1.1. The secondary endpoints include safety, R0 resection rate, quality of life, major pathologic response (MPR) rate, pathological complete response (pCR) rate, and N2 downstaging rate.

Results: Between October 17, 2018 and June 08, 2021, 88 patients were screened and 40 patients were finally enrolled. Of the 38 patients who completed 6-week osimertinib neoadjuvant treatment, the objective response rate was 71.1% (27/38). 32 patients underwent surgery (50% video-/robot-assisted thoracoscopic surgery; 50% open thoracotomy) and R0 resection was achieved in 30 (93.8%) of the resected patients. 10.7% of the 28 pathological evaluable patients achieved major pathological response, including one (3.6%) patient achieved pathological complete response. 13 (46.4%) patients had a ≥50% pathological response. Treatment-related adverse events (TRAEs) were observed in 24 (60%) patients during neoadjuvant treatment, including 3 (7.5%) had events of grade 3. No adverse event led to neoadjuvant treatment discontinuation occurred.

Conclusions: This study reported the data of neoadjuvant osimertinib in the largest prospective population to date. Osimertinib demonstrated satisfying efficacy and