ERLOTINIB AS MAINTENANCE THERAPY IN ASIAN PATIENTS WITH ADVANCED NON-SMALL-CELL LUNG CANCER (NSCLC): A SUBANALYSIS OF THE SATURN STUDY

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Background: Erlotinib (Tarceva [registered trade mark]) is an epidermal growth factor receptor (EGFR) tyrosine-kinase inhibitor, which has proven efficacy and is well tolerated as second-line therapy for advanced NSCLC. With convenient once-daily oral administration, erlotinib is a strong candidate for use in the first-line maintenance setting, to extend time to progression after chemotherapy and ensure that the maximum number of patients benefit from erlotinib therapy. SATURN was a global phase III study initiated to evaluate the efficacy and safety of erlotinib as first-line maintenance following non-progression with chemotherapy. We report a subanalysis from the Asian population in this study.

Methods: Enrolled patients received four cycles of chemotherapy, after which eligible patients with no evidence of disease progression were randomised to receive either erlotinib 150 mg/day or placebo until progression or unacceptable toxicity. Co-primary endpoints were progression-free survival (PFS) in all patients (intent-to-treat [ITT] population) and PFS in EGFR immunohistochemistry-positive (IHC+) patients. Additional endpoints included overall survival (OS) in all patients and EGFR IHC+ patients, disease control rate, safety and quality of life.

Results: In the initial phase of SATURN, 1,949 patients were enrolled and received at least one dose of standard doublet chemotherapy; 889 of these patients had complete/partial response or stable disease after four cycles and were considered suitable to receive maintenance therapy. They were randomised to receive either erlotinib (n=438) or placebo (n=451) until progression. A total of 241 patients were enrolled in SATURN from the East/South-East Asian region (177 from Korea, 46 from China and 18 from Malaysia). One hundred and twenty-five of these patients (88 from Korea, 28 from China and 10 from Malaysia [one patient was Indian and was therefore excluded from this Asian analysis]) entered the maintenance phase and were randomised to erlotinib (n=60) or placebo (n=65). Baseline characteristics for the Asian subpopulation compared with the overall study population are shown in the table, along with a summary of outcomes for the co-primary endpoints. Erlotinib maintenance therapy significantly prolonged

	All patients		Asian subpopulation	
	Erlotinib (n=438)	Placebo (n=451)	Erlotinib (n=60)	Placebo (n=65)
Median age (years)	60	60	55	54
Male/Female (%)	73/27	75/25	67/33	65/35
Adenocarcinoma + BAC/squamous-cell/other (%)	47/38/15	44/43/13	67/10/23	52/34/14
Stage IIIB/IV (%)	26/74	24/76	18/82	23/77
ECOG PS 0/1 (%)	31/69	32/68	17/83	28/72
Current/former/never smoker (%)	55/28/18	56/27/17	35/25/40	43/18/38
PFS in all patients	HR 0.71 [95% CI 0.62–0.82] p=0.000003		HR 0.57 [95% CI 0.37–0.86] p=0.0067	
PFS in EGFR IHC+ patients	HR 0.69 [95% CI 0.58–0.82] p=0.00002		HR 0.50 [95% CI 0.30–0.83] p=0.0057	

PFS (by investigator assessment; confirmed by independent review) versus placebo in both the ITT population and the EGFR IHC+ population for all patients in the study, and for the Asian subpopulation. Median OS was also prolonged with erlotinib versus placebo in the overall SATURN population (HR=0.81 [0.70-0.95]; p=0.0088) and, of particular note, in the EGFR wild-type subpopulation (HR=0.77 [0.61-0.97]; p=0.0243) (Cappuzzo et al, WCLC 2009); however, OS data are not yet mature for the Asian subpopulation. The overall response rate with erlotinib was 24% in Asian patients, versus 5% with placebo (p=0.0025). Maintenance erlotinib was well tolerated: the majority of treatment-related adverse events (AEs) were grade 1/2 and the only treatment-related AEs reported in ≥10% of Asian patients were rash, diarrhoea, pruritus, paronychia, acne, and dry skin. Four patients in the Asian subpopulation receiving erlotinib had a serious treatment-related AE and two withdrew due to a treatment-related AE.

Conclusions: These results from the Asian subpopulation of the SATURN study confirm the strong efficacy and favourable tolerability of erlotinib in this subpopulation, and highlight the potential for improving clinical benefit by using erlotinib as maintenance therapy following non-progression with first-line chemotherapy.