Journal of Clinical Oncology ***P13-06270***
2013, 31 Suppl Abstr 8034

Lume-lung 2: A multicenter, randomized, double-blind, phase III study of nintedanib plus pemetrexed versus placebo plus pemetrexed in patients with advanced nonsquamous non-small cell lung cancer (NSCLC) after failure of first-line chemotherapy.

Sub-category:
Metastatic Non-small Cell Lung Cancer

Category:
Lung Cancer - Non-small Cell Metastatic

Meeting:
2013 ASCO Annual Meeting

Abstract No:
8034

Citation:
J Clin Oncol 31, 2013 (suppl; abstr 8034)

Author(s): Nasser H. Hanna, Rolf Kaiser, Richard N. Sullivan, Osvaldo Rudy Aren, Myung-Ju Ahn, Beatrice Tiangco, Zanete Zvirbule, Carlos H. Barrios, Ahmet Demirkazik, Birgit Gaschler-Markefski, Isabelle Voccia, Jose Barrueco, Joo-Hang Kim; Melvin and Bren Simon Cancer Center, Indiana University, Indianapolis, IN; Boehringer Ingelheim GmbH, Biberach, Germany; Department of Oncology, Auckland City Hospital, Auckland, New Zealand; Instituto Nacional del Cancer, Santiago, Chile; Department of Medicine, Division of Hematology-Oncology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea; Internal Medicine, National Kidney and Transplant Institute, Quezon City, Philippines; Department of Oncology, Rîga Eastern Clinical University Hospital, Riga, Latvia; Hospital São Lucas da Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, Brazil; Department of Medical Oncology, Ankara University School of Medicine, Cebeci Hospital, Ankara, Turkey; Boehringer Ingelheim (Canada) Ltd, Burlington, ON, Canada; Boehringer Ingelheim GmbH, Ridgefield, CT; Department of Internal Medicine (Medical Oncology), Yonsei Cancer Research Institute, Yonsei Cancer Center, Seoul, South Korea

Abstract Disclosures

Abstract:

Background: Nintedanib (N) is an oral inhibitor of VEGFR, FGFR, and PDGFR. This global phase 3 study investigated the safety and efficacy of N + pemetrexed (PEM) vs placebo (P) + PEM in patients (pts) with advanced, non-squamous NSCLC previously treated with chemotherapy. **Methods:** Pts were randomized 1:1 to N 200 mg po bid + PEM 500 mg/m^2 iv q21d (n=353, Arm A) or P + PEM (n=360, Arm B). Continuation until PD or unacceptable toxicity with N, P, PEM, or a combination was permitted. 1° endpoint was centrally reviewed PFS. The null hypothesis was tested on the ITT population after 394 events had occurred (two sided α=5%). 2° endpoints included OS, investigator-assessed PFS, response rate (RR), safety, and QoL. **Results:** Baseline pt characteristics were balanced between Arm A vs B (median age 59 y, female 45–42%, ECOG PS 1 62-61%, adenocarcinoma 95–93%, prior bevacizumab 8%). Based on a planned DMC futility analysis of investigator-assessed PFS, enrolment was halted after randomizing 713/1300 planned pts (no safety issues identified). Ongoing pts were unblinded and follow-up continued per protocol. Subsequent ITT analysis of the 1° endpoint (centrally reviewed PFS) favored Arm A vs B (median 4.4 vs 3.6 mo, HR 0.83 [95% CI: 0.7–0.99], p=0.04). Disease control was also significantly improved in N-treated pts (61 vs 53%, odds ratio 1.37, p=0.039). No difference in OS (HR 1.03) or RR (9%) was found. Exploratory analyses identified time since start of 1st-line therapy as a predictive marker of improved outcome with N + PEM (ASCO 2013). There was no increase in SAEs or G5 AEs with N + PEM. Addition of N to PEM resulted in a higher incidence of ≥G3 elevated ALT (23 vs 7%), elevated AST (12 vs 2%), and diarrhea (3 vs 1%), but no difference in ≥G3 hypertension, bleeding, thrombosis, mucositis, or neuropathy. **Conclusions:** The 1° endpoint was met even though the study was stopped prematurely. Treatment with N + PEM significantly improved centrally reviewed PFS vs P + PEM in pts with advanced non-squamous NSCLC previously treated with chemotherapy, and had a manageable safety profile. Clinical trial information: NCT00806819.