8105 General Poster Session (Board #40E), Sat, 8:00 AM-11:45 AM

Subgroup analysis of crizotinib versus either pemetrexed (PEM) or docetaxel (DOC) in the phase III study (PROFILE 1007) of advanced *ALK*-positive non-small cell lung cancer (NSCLC).

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Background: PROFILE 1007 compared the efficacy and safety of crizotinib with that of standard-of-care chemotherapy in patients with *ALK*+ NSCLC. Although the study was not designed for formal assessment of patient outcomes on crizotinib vs. PEM or crizotinib vs. DOC, due to later interest, we performed retrospective efficacy and safety analyses of patient subgroups treated with crizotinib or each chemotherapy individually. **Methods:** Patients with stage IIIB/IV *ALK*+ NSCLC previously treated with 1 prior platinum-based regimen were randomized to receive crizotinib 250 mg PO BID or chemotherapy (PEM 500 mg/m^2 or DOC 75 mg/m^2, IV q3 wk). Patients with progressive disease on chemotherapy were offered crizotinib treatment in a separate study. In these subgroup analyses, PFS and ORR based on independent radiologic review, and safety were evaluated. **Results:** Of 347 patients randomized, 172 received crizotinib, 99 PEM, 72 DOC, and 4 no treatment. At data cutoff (Mar 2012), 85 crizotinib patients, 21 PEM patients, and 7 DOC patients were receiving treatment. Median treatment duration was longer in the crizotinib arm (7.1 mo) than in either the PEM (4.1 mo) or DOC (2.1 mo) treatment subgroups. Median PFS was significantly longer on crizotinib (7.7 mo) than on either PEM (4.2 mo; HR, 0.59; P=0.0004) or DOC (2.6 mo; HR, 0.30; P<0.0001). 1-year PFS rates were 31% on crizotinib, 16% on PEM, and 6% on DOC. The ORR on crizotinib (66%) was significantly higher than on either PEM (29%; risk ratio, 2.31; P<0.0001) or DOC (7%; risk ratio, 9.65; P<0.0001). The most common all-causality adverse events with crizotinib were diarrhea (60%), vision disorder (60%), and nausea (55%); with PEM, nausea (38%), fatigue (36%), and decreased appetite (26%); and with DOC, alopecia (47%), neutropenia (43%), and nausea (36%). **Conclusions:** Crizotinib's superior efficacy over chemotherapy, with a distinct but generally tolerable and manageable side effect profile in patients with advanced *ALK*+ NSCLC, was also observed in separate comparisons with either PEM or DOC. In patients receiving chemotherapy, median PFS, 1-year PFS rates, and ORR were all numerically higher on PEM than on DOC. Clinical trial information: NCT00932893.