

A phase I study of the humanized anti-epidermal growth factor receptor (EGFR) monoclonal antibody (mAb) TheraCIM-h-R3 (Nimotuzumab) in patients with advanced solid tumors.

Sub-category: Receptor-Targeted Antibodies/Ligands

Category: Developmental Therapeutics: Molecular Therapeutics

Meeting: 2006 ASCO Annual Meeting

Abstract No: 13054

Citation: Journal of Clinical Oncology, 2006 ASCO Annual Meeting Proceedings Part I. Vol 24, No. 18S (June 20 Supplement), 2006: 13054

Author(s): A. M. Brade, L. Siu, A. M. Oza, B. Southwood, M. De Borja, G. Pond, I. A. Sherman, E. Chen

Abstract: Background: Nimotuzumab is a humanized mAb against the extracellular ligand binding domain of EGFR. Although well tolerated when combined with radiotherapy in previous studies, the pharmacodynamics (PD) of nimotuzumab has not been elucidated. This phase I study was designed to evaluate the safety, tolerability and PD of nimotuzumab. Methods: Eligibility criteria included advanced solid tumors refractory to standard therapy and performance status of ECOG 0 - 2. Nimotuzumab was administered intravenously weekly x 6 and then every other week (6 weeks = 1 treatment cycle). Tumor and skin biopsies were obtained at baseline and after 2 weeks of treatment. Results: To date, 9 patients (7m/2f, median age 60, 7 colorectal cancer, ECOG 0:1:2 = 5:3:1, prior therapy 1:2:3+ = 1:3:5) have been treated on the first 2 dose levels (100 mg and 200 mg) for a total of 13 treatment cycles. The most common toxicities, mainly grade 1- 2, were lymphopenia (n=8 patients), fatigue (n=8), abnormal liver function tests (n=7) and anemia (n=6). Observed grade 3 toxicities include: pain (n=3), hyponatremia (n=2), elevated ALP (n=2), fatigue (n=1), hyperglycemia (n=1) and hyperkalemia (n=1). One patient at the first dose level experienced grade 3 fatigue, at least possibly attributable to nimotuzumab, and thus considered as a dose-limiting toxicity (DLT). No DLT were observed in the expanded cohort and dose level 2. No skin toxicities were observed. Stable disease was seen in 3 patients with colorectal cancer. PD from tumor and skin biopsies will be presented, and may clarify the reason for the lack of skin toxicity. Conclusions: Overall nimotuzumab was well tolerated, with disease stabilization observed in heavily pretreated patients. Accrual continues at dose level 3 (400 mg) with one further planned dose level (800 mg).