A phase II study of apanitib, a highly selective inhibitor of VEGFR-2, in patients with metastatic solid tumors without standard treatment options

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Background

Apanitib (GW580647) is an orally administered, highly selective tyrosine kinase inhibitor (TKI) of the VEGFR family (VEGFR-1-3) that is currently under investigation for a variety of diseases, including solid tumors and inflammatory diseases.

Methods

Study Design

The study was a single-arm, open-label phase II study to evaluate the efficacy and safety of apanitib in patients with metastatic solid tumors that had either failed to respond to previous therapy or had progressed on standard therapies. Eligible patients were required to have a solid tumor that was measurable by RECIST criteria (version 1.1) and a performance status of 0-2. The primary endpoint was the best overall response (OBR) in patients who had failed to respond to previous therapy or had progressed on standard therapies. Secondary endpoints included progression-free survival (PFS), overall survival (OS), and safety.

Results

A total of 58 patients were enrolled in the study, and the median age was 65 years (range, 29-78 years). Most patients had solid tumors of the lung (54%), breast (15%), or gastrointestinal tract (15%), and 70% had Eastern Cooperative Oncology Group (ECOG) performance status of 0-1. Apanitib was administered orally at a dose of 25 mg twice daily. The most common adverse events were diarrhea (45%), fatigue (40%), nausea (33%), and abdominal pain (22%). The overall response rate was 5% (2 of 58 patients), and the median PFS was 2.4 months. The median OS was 7.1 months, and the safety profile was consistent with previous studies. Apanitib demonstrated clinical activity in patients with metastatic solid tumors, particularly in those with gastrointestinal tract tumors and non-small cell lung cancer (NSCLC) with EGFR mutations. The compound had a favorable safety profile, with dose-limiting toxicities mainly consisting of gastrointestinal events. Apanitib was well tolerated, and the majority of adverse events were grade 1 or 2 in severity. The study concluded that apanitib had clinical activity in patients with metastatic solid tumors, particularly in those with EGFR-mutant NSCLC, and provided a safety profile consistent with previous reports.