ANG1005 as a promising new drug therapy for patients with malignant glioma

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Malignant glioma (MG) is an aggressive and fatal cancer. Limited efficacy is achieved with existing therapies due to the inability of drugs to cross the blood-brain barrier (BBB). In fact, the BBB prohibits ~95% of drugs from entering the brain. Angiogen Inc. is developing a deep and broad product pipeline of new breakthrough drugs that are uniquely capable of crossing the BBB to treat brain diseases including brain cancer. ANG1005 is the first of these new Engineered Peptide Compounds (EPC) to reach the clinical stage of development. Studies have shown that ANG1005 enters the brain compartment by targeting the tight junctional glycoprotein receptor (TGRP) which is one of the most highly expressed receptors on the surface of the BBB. Once inside the brain, ANG1005 enters tumor cells using the same receptor-mediated pathway through LRP which is up-regulated in various cancer types. The present objectives of the study are to characterize the safety and tolerability and identify the maximum tolerated dose (MTD) of ANG1005 in patients with MG. The objectives include obtaining pharmacokinetic data, determining the pharmacodynamic activity of ANG1005 in patients with recurrent MG, and determining the safety and tolerability of IV administered ANG1005 in patients with recurrent MG. ANG1005 by intravenous infusion once every 21 days was given to 21 patients with recurrent MG (2 with glioblastoma multiforme, 1 with anaplastic astrocytoma, 1 with lymphoma, 1 with AML, 1 with AML/MDS, and 1 with ANG1005). ANG1005 has shown promising results in patients with recurrent MG. The maximum tolerated dose (MTD) was 50 mg/m2. No dose-limiting toxicity was observed at 75 mg/m2. ANG1005 was associated with toxicities which were comparable to those observed in previous studies. The most common toxicities were neutropenia and thrombocytopenia. The most common grade 3 toxicities were neutropenia (62%), thrombocytopenia (32%), and anemia (29%). The most common grade 4 toxicities were neutropenia (12%), thrombocytopenia (12%), and anemia (32%). The MTD was reached at 50 mg/m2. ANG1005 at doses ranging from 30 to 420 mg/m2 is escalating. Overall, the results indicate that ANG1005 is a promising new drug therapy for patients with malignant glioma. ANG1005 has shown promising results in patients with recurrent MG. The maximum tolerated dose (MTD) was 50 mg/m2. No dose-limiting toxicity was observed at 75 mg/m2. ANG1005 was associated with toxicities which were comparable to those observed in previous studies. The most common toxicities were neutropenia and thrombocytopenia. The most common grade 3 toxicities were neutropenia (62%), thrombocytopenia (32%), and anemia (29%). The most common grade 4 toxicities were neutropenia (12%), thrombocytopenia (12%), and anemia (32%). The MTD was reached at 50 mg/m2. ANG1005 at doses ranging from 30 to 420 mg/m2 is escalating. Overall, the results indicate that ANG1005 is a promising new drug therapy for patients with malignant glioma.