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Abstracts

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**DDDEL-06. PRELIMINARY SAFETY OF TOCA 511, A RETROVIRAL REPLICATING VECTOR, IN PATIENTS WITH RECURRENT HIGH GRADE GLIOMA ACROSS THREE SEPARATE PHASE 1 STUDIES**

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High grade glioma (HGG) remains resistant to standard therapies with survival ranging from 7.2-8.1 months. Two Phase 1 clinical studies using a retroviral replicating vector (RRV), Toca 511, in combination with oral Toca FC (extended-release 5-FC) are ongoing to evaluate intracranial delivery of Toca 511 in patients with recurrent HGG. Patients were treated either by administering Toca 511 via intratumoral injection by biopsy needle or convection-enhanced delivery (CED) (NCT01156584), or by injection into the resection cavity wall (NCT01470794). The total safety population included 82 patients. The safety profile was favorable with only 3.7% patients experiencing a treatment related SAE and 1 patient discontinuing treatment due to toxicity (rash). A total of 59 patients who were efficacy evaluable (received Toca 511 and at least one dose of Toca FC) and excluding patients with non-biopsy needle delivery had a mOS of 13.8 months (95% CI 10.8,16.9). Cox-regression was used to examine factors associated with survival outcome. Baseline factors included for univariate analysis were tumor grade (III vs IV), number of recurrences ( $\leq 2$  vs  $> 2$ ), gender, age ( $\leq 55$  vs  $> 55$ ), longest diameter of cancerous lesion (continuous), daily dose of Toca FC ( $\geq 170$  mg/kg vs  $< 170$  mg/kg), extent of primary resection (gross-total vs subtotal), KPS ( $\leq 80$  vs  $> 80$ ), time between Toca 511 and Toca FC (weeks), and respective study participation (NCT01156584 vs NCT01470794). Of these, tumor grade, number of recurrences, gender and lesion diameter were included for multivariate analysis based on a p value  $> 0.2$  in the univariate analysis. Based on the multivariate analysis, the only statistically significant positive prognostic factor was the category of number of recurrences. Excluding patients with  $> 2$  recurrences, the observed median overall survival (mOS) is 14 months (95% CI 11.15, 23.36), comparing favorably to historical benchmarks. 60% and 24.7% of patients were alive after 12 and 24 months, respectively.