**Supplemental Tables and Figures**

**Table S1. Baseline Tumor Assessments Summary**

|  |  |  |
| --- | --- | --- |
| Tumor Assessment | Nivolumab + RT + TMZ n = 358No. (%) | Placebo + RT + TMZ n = 358No. (%) |
| Patients with ≥1 lesion | 335 (93.6) | 328 (91.6) |
| Site of lesion*a,b*Temporal lobeFrontal lobeParietal lobeOccipital lobeCorpus callosumBasal gangliaThalamusBrain stemCaudate nucleusHippocampusCerebellumLeptomeningealOther | 139 (38.8)109 (30.4)75 (20.9)39 (10.9)23 (6.4)8 (2.2)7 (2.0)3 (0.8)2 (0.6)1 (0.3)0020 (5.6) | 124 (34.6)104 (29.1)73 (20.4)37 (10.3)20 (5.6)11 (3.1)7 (2.0)1 (0.3)02 (0.6)1 (0.3)1 (0.3)28 (7.8) |
| Measurable target lesion  | 98 (27.4) | 76 (21.2) |
| SPD of measurable target lesions Median (range), mm2 | 542.5 (140-4454) | 620.0 (120-3930) |
| Site of target lesion(s) Temporal lobeFrontal lobeParietal lobeCorpus callosumOccipital lobeBasal gangliaThalamusHippocampusOther | 35 (9.8)22 (6.1)21 (5.9)11 (3.1)8 (2.2)2 (0.6)1 (0.3)1 (0.3)8 (2.2) | 25 (7.0)19 (5.3)12 (3.4)9 (2.5)9 (2.5)2 (0.6)0010 (2.8) |

RT, radiotherapy; SPD, sum of products of perpendicular diameters; TMZ, temozolomide.

*a* Includes both measurable and nonmeasurable lesions.

*b* Patients may have lesions at >1 site.

|  |
| --- |
| **Table S2.** **Immune-Mediated Select Adverse Events by Category** |
| **Patients** | **Nivolumab +RT + TMZ** **n = 355****No. (%)** | **Placebo +RT + TMZ** **n = 354****No. (%)** |
|  | **Any Grade** | **Grade 3/4** | **Any Grade** | **Grade 3/4** |
| Select treatment-related AEs by category |  |  |  |  |
| Gastrointestinal | 43 (12.1) | 8 (2.3) | 25 (7.1) | 0 |
| Hepatic | 69 (19.4) | 32 (9.0) | 38 (10.7) | 4 (1.1) |
| Pulmonary | 7 (2.0) | 3 (0.8) | 1 (0.3) | 0 |
| Renal | 17 (4.8) | 3 (0.8) | 8 (2.3) | 0 |
| Dermal | 117 (33.0) | 10 (2.8) | 91 (25.7) | 6 (1.7) |
| Hypersensitivity/infusion reaction | 28 (7.9) | 2 (0.6) | 9 (2.5) | 0 |

AE, adverse event; RT, radiotherapy; TMZ, temozolomide.

**Figure S1. Study Profile**

****

**Figure S1.** **Study Profile.**CONSORT diagram showing the number of patients in CheckMate 548 who were enrolled, treated with nivolumab + RT + TMZ or placebo + RT + TMZ, discontinued treatment, and were analyzed for efficacy and safety. AE, adverse event; MGMT, O6-methylguanine DNA methyltransferase; RT, radiotherapy; TMZ, temozolomide.

**Figure S2. Progression-Free Survival and Overall Survival by PD-L1 Expression (5% cutoff)**

**A.**

|  |  |  |
| --- | --- | --- |
|  | **Nivolumab +RT + TMZ** **PD-L1 ≥5%****n = 87** | **Placebo +RT + TMZ** **PD-L1 ≥5%****n = 89** |
| **No. of events** | **68** | **71** |
| **PFS, median, mo****95% CI** | **8.4****6.2-12.3** | **9.9****6.5-13.1** |



**HR, 1.1 (95% CI, 0.8-1.6)**

**B.**

|  |  |  |
| --- | --- | --- |
|  | **Nivolumab +RT + TMZ** **PD-L1 <5%****n = 269** | **Placebo +RT + TMZ****PD-L1 <5%****n = 267** |
| **No. of events** | **205** | **210** |
| **PFS, median, mo****95% CI** | **11.5****9.7-12.1** | **11.3****9.8-13.1** |



**HR, 1.0 (95% CI, 0.8-1.2)**

**C.**

|  |  |  |
| --- | --- | --- |
|  | **Nivolumab +RT + TMZ****PD-L1 ≥5%****n = 87** | **Placebo +RT + TMZ** **PD-L1 ≥5%****n = 89** |
| **No. of events** | **49** | **53** |
| **OS, median, mo****95% CI** | **29.2****21.8-42.9** | **31.3****23.2-36.0** |



**HR, 1.0 (95% CI, 0.6-1.4)**

**D.**

|  |  |  |
| --- | --- | --- |
|  | **Nivolumab +RT + TMZ** **PD-L1 <5%****n = 269** | **Placebo +RT + TMZ****PD-L1 <5%****n = 267** |
| **No. of events** | **172** | **163** |
| **OS, median, mo****95% CI** | **28.9****23.7-31.6** | **31.8****28.8-33.8** |



**HR, 1.1 (95% CI, 0.9-1.4)**

**Figure S2. Progression-Free Survival and Overall Survival by PD-L1 Expression (5% cutoff)**

Number of events, median PFS, and Kaplan-Meier curves for PFS in all patients with baseline PD-L1 expression ≥5% (A) and <5% (B). Number of events, median OS, and Kaplan-Meier curves for OS in all patients with baseline PD-L1 expression ≥5% (C) and <5% (D). Symbols indicate censored observations. BICR, blinded independent central review; OS, overall survival; PD-L1, programmed death-1 ligand 1; PFS, progression-free survival; RT, radiotherapy; TMZ, temozolomide.

**Figure S3. Overall Survival in Prespecified Patient Subgroups Defined by Baseline Clinical Characteristics in Patients Without Baseline Corticosteroids**



**Figure S3. Overall Survival in Prespecified Patient Subgroups Defined by Baseline Clinical Characteristics in Patients Without Baseline Corticosteroids**

Forest plots of unstratified hazard ratios for death in the analysis of treatment effect in prespecified patient subgroups according to baseline characteristics in patients without baseline corticosteroids. CRF, case report form; mOS, median overall survival; RPA, recursive partitioning analysis class; RT, radiotherapy; TMZ, temozolomide.