

**Supplemental Table 1:** Detailed Patient Characteristics of Patients with Astrocytic Low-Grade Glioma

Patient no.	Sex	Age (y)	KPS (%)	CE on MRI	FET PET	SUV <sub>max</sub> /BG	BTv	TACs	Initial treatment	Tumor progression	PFS (mo)	Malignant transformation	TTM (mo)	Histology at malignant transformation	Death	OS (mo)
1	Male	32	90	+	+	2.4	2.4	↓	Chemotherapy	+	22.7	+	22.7	Anaplastic astrocytoma	+	36.0
2	Female	32	90	–	+	2.5	3.1	↑	Wait and see	+	39.2	–	48.9		–	48.9
3	Male	49	90	+	+	3.9	18.3	↓	Chemotherapy	+	25.5	+	25.5		–	25.7
4	Female	42	90	–	+	2.6	1.1	↑	Wait and see	–	34.4	–	34.4		–	34.4
5	Female	48	90	+	+	5.1	27.0	↓	Chemotherapy	+	15.5	+	15.5	Anaplastic astrocytoma	–	70.5
6	Female	69	80	–	+	1.6		NA	Wait and see	–	35.7	–	35.7		–	35.7
7	Male	41	90	–	+	2.5	1.5	↑	Chemotherapy	–	52.2	–	52.2		–	52.2
8	Male	38	80	–	+	4.7	20.5	↓	Wait and see	+	10.6	+	34.8	Anaplastic oligoastrocytoma	–	56.4
9	Male	42	80	–	+	1.9	0.1	↑	Chemotherapy	–	49.9	–	49.9		–	49.9
10	Male	27	90	–	–				Tumor resection	+	20.6	+	20.6	Anaplastic astrocytoma	+	63.7
11	Male	52	90	–	+	3.6	9.5	↓	Chemotherapy	–	68.3	–	68.3		–	68.3
12	Female	49	90	–	–				Wait and see	–	18.3	–	18.3		–	18.3
13	Male	29	90	–	–				Tumor resection	+	34.0	–	50.3		–	50.3
14	Female	42	80	–	+	2.4	0.5	NA	SBT	–	79.1	–	79.1		–	79.1
15	Male	68	90	–	–				SBT	+	11.5	+	11.5	Glioblastoma	+	43.7
16	Male	35	90	–	–				SBT	+	27.9	+	50.9	Glioblastoma	–	72.2
17	Female	45	90	–	+	1.6		↑	SBT	–	36.6	–	36.6		–	36.6
18	Female	45	90	–	+	2.7	14.8	NA	Wait and see	+	14.2	–	26.7		–	26.7
19	Male	43	90	–	+	2.5	7.7	↓	SBT	+	15.6	+	15.6	Anaplastic astrocytoma	+	27.4
20	Male	28	90	–	–				Wait and see	–	21.0	–	21.0		–	21.0
21	Male	47	90	–	–				Wait and see	–	26.7	–	26.7		–	26.7
22	Male	64	90	–	–				SBT	+	10.8	+	10.8	Glioblastoma	+	18.3
23	Male	50	90	–	+	2.4	6.3	↓	Wait and see	+	3.0	+	3.0	Anaplastic astrocytoma	–	45.0
24	Female	45	100	–	–				Tumor resection	–	44.9	–	44.9		–	44.9
25	Male	46	90	–	+	1.7		↓	Wait and see	+	2.8	+	2.8	Glioblastoma	+	15.1

26	Female	38	90	+	+	2.3	1.0	↑	Chemotherapy	+	20.2	+	20.2	Anaplastic astrocytoma	–	21.0
27	Male	76	90	+	+	1.9		↓	Wait and see	+	7.9	+	7.9	Glioblastoma	–	30.9
28	Female	35	90	–	+	1.6		↑	Chemotherapy	+	10.5	+	23.5	Anaplastic astrocytoma	–	23.7
29	Male	55	90	–	–				Wait and see	+	8.1	+	8.1	Glioblastoma	+	22.9
30	Female	42	90	–	–				Wait and see	–	15.9	–	15.9		–	15.9
31	Male	28	90	–	+	2.4	2.2	↑	Wait and see	+	20.2	–	43.5		–	43.5
32	Female	39	100	–	–				Tumor resection	–	17.6	–	17.6		–	17.6
33	Male	25	100	–	+	1.6		↑	Tumor resection and SBT	+	20.5	+	20.5	Anaplastic astrocytoma	–	64.6
34	Male	38	80	–	+	1.5		NA	Wait and see	–	10.4	–	10.4		–	10.4
35	Female	66	90	–	+	2.1	0.4	↓	Wait and see	+	10.3	+	10.3	Glioblastoma	+	24.2
36	Male	33	90	–	–				SBT	–	75.1	–	75.1		–	75.1
37	Female	58	90	+	+	2.4	1.5	↑	Wait and see	–	47.0	–	47.0		–	47.0
38	Female	49	90	+	+	3.2	20.0	↓	Chemotherapy	+	5.7	–	34.3		–	34.3
39	Male	44	90	–	–				Wait and see	–	12.6	–	12.6		–	12.6
40	Male	49	90	–	–				SBT	+	53.9	+	53.9	Glioblastoma	–	63.0
41	Female	54	90	–	–				Wait and see	+	21.6	+	21.6	Glioblastoma	–	56.4
42	Male	36	90	–	–				Radiotherapy	–	31.3	–	31.3		–	31.3
43	Female	37	90	–	–				Chemotherapy	–	28.2	–	28.2		–	28.2
44	Male	43	80	–	+	1.5		↑	Chemotherapy	–	62.0	–	62.0		–	62.0
45	Female	36	70	–	+	2.9	24.8	↑	Chemotherapy	+	8.3	–	46.7		–	46.7
46	Female	43	90	–	+	1.7		↑	Wait and see	–	53.2	–	53.2		–	53.2
47	Female	44	80	–	+	2.4	0.6	↑	Chemotherapy	–	75.4	–	75.4		–	75.4
48	Female	45	90	–	–				Chemotherapy	–	24.0	–	24.0		–	24.0
49	Male	47	70	–	+	2.3	10.5	↑	Chemotherapy	–	59.0	–	59.0		–	59.0
50	Female	36	80	–	–				Tumor resection	–	50.1	–	50.1		–	50.1
51	Female	42	90	–	–				Wait and see	–	80.3	–	80.3		–	80.3
52	Male	34	90	+	+	2.4	9.4	↑	Radiotherapy	–	16.6	–	16.6		–	16.6
53	Female	29	90	+	+	1.8		↑	Wait and see	–	76.0	–	76.0		–	76.0
54	Male	28	100	–	–				Wait and see	–	22.6	–	22.6		–	22.6
55	Male	31	90	–	–				Wait and see	+	21.7	–	35.5		–	35.5
56	Female	40	100	+	+	2.6	30.0	↑	Wait and see	–	86.8	–	86.8		–	86.8
57	Female	23	90	–	–				SBT	+	23.7	–	23.7		+	23.7

58	Male	47	80	–	–				SBT	+	43.3	+	43.3	Anaplastic astrocytoma	+	49.1
59	Male	33	80	+	+	2.8	2.2	↓	Tumor resection and radiotherapy	+	19.3	+	19.3	Anaplastic astrocytoma	+	34.5

KPS = Karnofsky performance score; CE = contrast enhancement; BTV = biologic tumor volume; TACs = time–activity curves; PFS = progression-free survival; NA = not applicable; SBT = stereotactic brachytherapy