

## Supplementary Table 1

### Descriptive characteristics for whole cohort

	Group 'A' GA	Group 'B' AC	P-value
Number of patients	704 (79.01%)	187 (20.99%)	
<u>Sex</u>			
Male	416 (59.09%)	117 (62.57%)	0.389 <sup>a</sup>
Female	288 (40.91%)	70 (37.43%)	
<u>Age (in years, at surgery date)</u>			
Median [min-max]	59 [18-96]	57 [18-94]	0.188 <sup>c</sup>
IQR	19	22	
<u>WHO grade of tumor</u>			
III	105 (14.91%)	47 (25.13%)	<0.001 <sup>a</sup>
IV	599 (85.09%)	140 (74.87%)	
<u>Tumor size (cm<sup>3</sup>)</u>			
Median [min-max]	28.6 [0.4-360.0]	23.6 [0.2-179.1]	0.002 <sup>c</sup>
IQR	46.2	32.8	
<u>Pathological diagnosis</u>			
Missing	4 (0.57%)	0 (0.00%)	0.004 <sup>a</sup>
Anaplastic astrocytoma	67 (9.52%)	26 (13.90%)	
Anaplastic oligodendroglioma	34 (4.83%)	19 (10.16%)	
Glioblastoma	599 (85.08%)	142 (75.94%)	
<u>Molecular diagnosis (IDH)</u>			
IDH-1	194 (27.56%)	34 (18.18%)	<0.001 <sup>a</sup>
IDH-WT	223 (31.68%)	23 (12.30%)	
IDH status unknown	287 (40.77%)	130 (69.52%)	
<u>Molecular diagnosis (MGMT)</u>			
MGMT +	102 (14.49%)	21 (11.23%)	<0.001 <sup>a</sup>
MGMT -	165 (23.44%)	20 (10.70%)	
MGMT status unknown	437 (62.07%)	146 (78.07%)	
<u>Location of tumor</u>			
Supratentorial	606 (86.08%)	161 (86.10%)	0.697 <sup>a</sup>
Infratentorial	17 (2.41%)	0 (0.00%)	
Multifocal	81 (11.51%)	26 (13.90%)	
<u>Pre-operative KPS (%)</u>			
Missing	1 (0.14%)	0 (0.00%)	0.415 <sup>a</sup>
<70	204 (28.98%)	60 (32.09%)	
≥70	499 (70.88%)	127 (67.91%)	

<u>Anesthesia Technique</u>			
TIVA	36 (5.11%)	0 (0.00%)	
Volatile	391 (55.54%)	0 (0.00%)	
Balanced anesthesia	277 (39.35%)	0 (0.00%)	
AC	0 (0.00%)	187 (100.00%)	n/a
<u>Dexmedetomidine Use</u>			
None	704 (100.00%)	142 (75.93%)	
With AC	0 (0.00%)	45 (24.07%)	n/a
<u>Duration of anesthetics (mins)</u>			
Median [min-max]	240 [73-860]	180 [90-727]	
IQR	124	100	<0.001 <sup>c</sup>
<u>Use of intraoperative MRI</u>			
No	681 (96.73%)	179 (95.72%)	
Yes	23 (3.27%)	8 (4.28%)	0.502 <sup>a</sup>
<u>Blood transfusion</u>			
No	695 (98.72%)	186 (99.47%)	
Yes	9 (1.28%)	1 (0.53%)	0.697 <sup>b</sup>
<u>Extent of resection</u>			
Gross total	313 (44.46%)	79 (42.25%)	
Subtotal	391 (55.54%)	108 (57.75%)	0.588 <sup>a</sup>
<u>Intraoperative complications</u>			
None	668 (94.89%)	170 (90.91%)	
1-3 complications	36 (5.11%)	17 (9.09%)	0.041 <sup>a</sup>
<u>Intraoperative respiratory complications</u>			
No	701 (99.57%)	184 (98.40%)	
Yes	3 (0.43%)	3 (1.60%)	0.111 <sup>b</sup>
<u>Intraoperative cardiovascular complications</u>			
No	691 (98.15%)	184 (98.40%)	
Yes	13 (1.85%)	3 (1.60%)	1.000 <sup>b</sup>
<u>Intraoperative neurological complications</u>			
No	685 (97.30%)	177 (94.65%)	
Yes	19 (2.70%)	10 (5.35%)	0.070 <sup>a</sup>
<u>Intraoperative N/V</u>			
No	703 (99.86%)	184 (98.40%)	
Yes	1 (0.14%)	3 (1.60%)	0.031 <sup>b</sup>
<u>Post-operative consumption of narcotics (mg morphine equivalents)</u>			

Median	2.5 [0-62]	0 [0-25]	
IQR	10	5	<0.001 <sup>c</sup>
<u>Post-operative complications</u>			
None	540 (76.70%)	153 (81.82%)	
1-3 complications	160 (22.73%)	34 (18.18%)	
>3 complications	4 (0.57%)	0 (0.00%)	0.288 <sup>b</sup>
<u>DVT</u>			
No	684 (97.16%)	186 (99.47%)	
Yes	20 (2.84%)	1 (0.53%)	0.098 <sup>b</sup>
<u>CVA</u>			
No	701 (99.57%)	187 (100.00%)	
Yes	3 (0.43%)	0 (0.00%)	1.000 <sup>b</sup>
<u>Sepsis</u>			
No	672 (95.45%)	184 (98.40%)	
Yes	32 (4.55%)	3 (1.60%)	0.066 <sup>a</sup>
<u>New seizures</u>			
No	673 (95.60%)	183 (97.86%)	
Yes	31 (4.40%)	4 (2.14%)	0.157 <sup>a</sup>
<u>CSF leak</u>			
No	700 (99.43%)	184 (98.40%)	
Yes	4 (0.57%)	3 (1.60%)	0.165 <sup>b</sup>
<u>New neurological deficits</u>			
No	606 (86.08%)	162 (86.83%)	
Yes	98 (13.92%)	25 (13.37%)	0.846 <sup>a</sup>
<u>MI</u>			
No	703 (99.86%)	187 (100.00%)	
Yes	1 (0.14%)	0 (0.00%)	1.000 <sup>b</sup>
<u>Pneumonia</u>			
No	697 (99.01%)	185 (98.93%)	
Yes	7 (0.99%)	2 (1.07%)	1.000 <sup>b</sup>
<u>Radiation</u>			
Missing	9 (1.28%)	16 (8.56%)	
None	80 (11.36%)	11 (5.88%)	
<60 Gy	368 (52.27%)	117 (62.57%)	
≥60 Gy	247 (35.09%)	43 (22.99%)	0.001 <sup>a</sup>
<u>Chemotherapy + RT</u>			
Missing	8 (1.14%)	11 (5.88%)	
No	180 (25.57%)	37 (19.79%)	
Yes	516 (73.30%)	139 (74.33%)	0.185 <sup>a</sup>

Adjuvant chemotherapy

Missing	12 (1.70%)	14 (7.49%)	
None	259 (36.79%)	48 (25.67%)	
<6 cycles	288 (40.91%)	89 (47.59%)	
≥6 cycles	145 (20.60%)	36 (19.25%)	0.035 <sup>a</sup>

Treatment group

No RT	89 (12.64%)	27 (14.44%)	
Chemotherapy + RT followed by adjuvant chemotherapy	410 (58.24%)	120 (64.17%)	
RT alone followed by adjuvant chemotherapy	15 (2.13%)	2 (1.07%)	
Chemotherapy + RT alone	106 (15.06%)	19 (10.16%)	
RT alone	84 (11.93%)	19 (10.16%)	0.283 <sup>a</sup>

<sup>a</sup> Chi square test<sup>b</sup> Fisher Exact test<sup>c</sup> Wilcoxon-Mann-Whitney test

GA, general anesthesia; AC, awake craniotomy; Y, yes; N, no; IQR, interquartile range; WHO, World Health Organization; IDH, isocitrate dehydrogenase; MGMT, O-6-methylguanine-DNA methyltransferase; KPS, Karnofsky Performance Status; TIVA, total intravenous anesthesia; N/V, nausea/vomiting; DVT, deep vein thrombosis; CVA, cerebrovascular accident; CSF, cerebrospinal fluid; MI, myocardial infarction, RT: radiation therapy