

Supplementary Material

Outcome of Bevacizumab Therapy in Patients with Recurrent Glioblastoma Treated with Angiotensin System Inhibitors

Authors

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Table S1. Patient characteristics – Pre-baseline period

Characteristics	Total (n = 243)	Pre-baseline period		P
		ASI users (n = 30)	Non-users (n = 213)	
Age, years (range)				0.01
Median	57 (22-80)	61 (44-73)	55 (22-80)	
Gender, n (%)				0.80
Male	165 (68)	21 (70)	144 (68)	
Female	78 (32)	9 (30)	69 (32)	
Performance status, n (%)				0.03
0	89 (37)	8 (27)	81 (38)	
1	108 (44)	10 (33)	98 (46)	
2	43 (18)	11 (37)	32 (15)	
3	0	0	0	
Missing	3 (1)	1 (3)	2 (1)	
Multifocal disease, n (%)				0.15
Yes	83 (34)	14 (47)	69 (32)	
No	154 (63)	16 (53)	138 (65)	
Missing	6 (3)	0	6 (3)	
Corticosteroids, n (%)				0.11
<10 mg	64 (26)	4 (13)	60 (28)	
>10 mg	174 (72)	24 (80)	150 (71)	
Missing	5 (2)	2 (7)	3 (1)	
Corticosteroids, mg/day (range)				0.20
Median	37.5 (0-160)	50 (0-150)	37.5 (0-160)	
Neurocognitive deficit, n (%)				0.86
Yes	126 (52)	16 (53)	110 (52)	
No	117 (48)	14 (47)	103 (48)	
Tumor size (start bevacizumab), mm2 (range)				0.19
Median	1264 (90-8291)	1638 (150-5860)	1224 (90-8291)	
Frontal location, n (%)				0.27
Yes	60 (25)	5 (17)	55 (26)	
No	182 (75)	25 (83)	157 (74)	
Missing	1 (0)	0	1 (0)	
Relapse surgery, n (%)				0.38
Yes	131 (54)	14 (47)	117 (55)	
No	111 (46)	16 (53)	95 (45)	
Missing	1 (0)	0	1 (0)	

Table S2 **Univariate analysis – Pre- and post-baseline period**

	PFS		OS	
	HR (95 % CI)	P-value	HR (95 % CI)	P-value
Drugs Yes vs. no				
Pre-baseline Angiotensin inhibitors	1.27 (0.87 ; 1.87)	0.22	1.22 (0.82 ; 1.79)	0.33
Post-baseline Angiotensin inhibitors	0.75 (0.48 ; 1.17)	0.21	0.80 (0.53 ; 1.22)	0.31
Any type of antihypertensive drug	0.72 (0.48 ; 1.09)	0.12	1.07 (0.76 ; 1.49)	0.71
Diuretics	0.93 (0.64 ; 1.36)	0.73	0.82 (0.56 ; 1.19)	0.29
Beta-blockers	0.79 (0.39 ; 1.62)	0.52	0.77 (0.38 ; 1.56)	0.47
Calcium antagonists	0.66 (0.39 ; 1.12)	0.13	0.78 (0.46 ; 1.32)	0.35
Multifocal disease Yes vs. no	1.39 (1.06 ; 1.83)	0.02	1.62 (1.23 ; 2.14)	0.001
Use of steroids >10 mg vs <10 mg	1.44 (1.08 ; 1.92)	0.01	1.82 (1.35 ; 2.45)	<0.001
Performance status				
1 vs 0	1.17 (0.88 ; 1.56)	0.28	1.38 (1.01 ; 1.84)	0.03
2 vs 0	1.58 (1.09 ; 2.28)	0.02	1.73 (1.19 ; 2.51)	0.004
Neurocognitive deficit Yes vs. no	1.27 (0.98 ; 1.64)	0.07	1.35 (1.04 ; 1.75)	0.03

Table S3 **Multivariate analysis – Pre-baseline period**

	PFS		OS	
	HR (95 % CI)	P-value	HR (95 % CI)	P-value
Pre-baseline Angiotensin inhibitors Yes vs. no	1.05 (0.68 ; 1.62)	0.84	0.99 (0.64 ; 1.53)	0.96
Multifocal disease Yes vs. no	1.34 (1.01 ; 1.77)	0.04	1.56 (1.17 ; 2.07)	0.002
Use of steroids >10 mg vs <10 mg	1.38 (1.00 ; 1.90)	0.05	1.76 (1.26 ; 2.45)	0.001
Performance status				
1 vs 0	0.97 (0.72 ; 1.32)	0.85	1.09 (0.80 ; 1.49)	0.57
2 vs 0	1.13 (0.72 ; 1.76)	0.60	1.11 (0.71 ; 1.75)	0.64
Neurocognitive deficit Yes vs. no	1.21 (0.93 ; 1.59)	0.16	1.32 (1.00 ; 1.75)	0.05