

Supplementary Material

Supplementary file 3: Patient Characteristics

Characteristics (Cohort 1)	Gliomas WHO grade II-IV (n=158)
Age, years median (range)	60 (23-89)
Gender, n (%)	
Male	94 (59.5)
Female	64 (40.5)
Diagnosis, n (%)	n=158
Oligodendroglioma WHO grade II-III	7 (4.4%)
Astrocytoma WHO grade II-III	17 (10.8%)
GBM	134 (84.8%)
Survival outcome	n=156
OS, weeks median (range)	58 (1-233)
Lost to follow-up	2
Plasma YKL-40 ng/ml median (range)	62 (10-1035)
Plasma IL-6 pg/ml median (range)	1 (0.3-26.5)
CHI3L1 SNP rs4950928, n (%)	n=151
C/C	91 (60.3)
G/C	57 (37.7)
G/G	3 (2.0)
Missing	7
Status at end of follow-up, n (%)	n=156
Dead	116 (74.4)
Alive	40 (25.6)
Lost to follow-up	2

Characteristics (Cohort 2)	Newly diagnosed GBM (n=94)
Age, years median (range)	65 (33-89)
Gender, n (%)	
Male	57 (60.6)
Female	37 (39.4)
Modified Charlson Comorbidity Index, n (%)	n=89
0	62 (69.7)
1	19 (21.3)
2	4 (4.5)
3	2 (2.2)
4	0
5	0
6	2 (2.2)
Missing	5
Multifocal disease, n (%)	n=85
Yes	6 (7.1)
No	79 (92.9)

Missing	9
Degree of resection, n (%)	n=87
Partial resection	41 (47.1)
Gross-total resection	46 (52.9)
Missing	7
Treatment, n (%)	n=94
No treatment	7 (7.4)
Radiation therapy only	3 (3.2)
Temozolomide (TMZ) only	2 (2.1)
Stupps Regimen	65 (69.1)
Radiation therapy and concomittant TMZ	2 (2.1)
Palliative radiation therapy	15 (16)
Missing	0
Steroid treatment at blood-sampling, n (%)	n=82
0	2 (2.4)
12.5-25 mg	3 (3.7)
50-75 mg	28 (34.1)
87.5-100 mg	46 (56.1)
>100 mg	3 (3.7)
Missing	12
MGMT promotor methylation status, n (%)	n=91
Methylated	40 (44)
Non-methylated	51 (56)
Missing	3
Recurrence, n (%)	n=93
Yes	74 (77.7)
Dead without verified recurrence	13
Alive at end of follow-up without recurrence	6
Missing (Uncertainty regarding recurrence date)	1
Survival outcome	
PFS, weeks median (range)	23 (3-233)
Missing (Uncertainty regarding recurrence date), n	1
OS, weeks median (range)	58 (3-233)
Lost to follow-up, n	2
Plasma YKL-40 ng/ml median (range)	77.5 (10-1035)
Plasma IL-6 pg/ml median (range)	1.1 (0.3-26.5)
CHI3L1 SNP rs4950928, n (%)	n=90
C/C	59 (65.6)
G/C	29 (32.2)
G/G	2 (2.2)
Missing	4

Characteristics (Cohort 3)	Recurrent GBM (n=40)
Age, years median (range)	56 (37-79)
Gender, n (%)	

Male	22 (55)
Female	18 (45)
Modified Charlson Comorbidity Index, n (%)	n=39
0	31 (79.5)
1	3 (7.7)
2	4 (10.3)
3	1 (2.6)
Missing	1
Multifocal disease, n (%)	n=38
Yes	4 (10.5)
No	34 (89.5)
Missing	2
Primary treatment regimen, n= 38 (%)	n=38
No treatment	1 (2.6)
Radiation therapy only	0
Temozolomide (TMZ) only	0
Stupps Regimen	35 (92.1)
Radiation therapy and concomittant TMZ	0
Palliative radiation therapy	2 (5.3)
Missing	2
Number of recurrences, n (%)	n=39
First recurrence GBM	25 (64.1)
Second recurrence GBM	12 (30.8)
Third recurrence GBM	2 (5.1)
Missing	1
Treatment, n (%)	n=38
No treatment	18 (47.4)
Radiation therapy only	1 (2.6)
Temozolomide only	6 (15.8)
Lomustine only	1 (2.6)
Avastin and Lomustine	5 (13.2)
Clinical trial	5 (13.2)
Radiation therapy and Temozolomide	2 (5.2)
Missing	2
Survival outcome	
OS (from blood sampling to death or end of follow-up), weeks median (range)	33 (2-102)
OS (from diagnosis to death or end of follow-up), weeks median (range)	97 (30-785)
Plasma YKL-40 ng/ml, median (range)	60.5 (17-266)
Plasma IL-6 pg/ml, median (range)	1.1 (0.3-4.4)
CHI3L1 SNP rs4950928, n (%)	n=37
C/C	20 (54.1)
G/C	17 (45.9)
G/G	0
Missing	3

