

Supplementary Table S1. Characteristics of the included prognostic studies

Author (Year)	Countr y	N	Age	Grad e	Sampling time	Cutoff value(10e 9/L)	UVA/MVA
Lv (2019)	China	192	/	GBM	Preoperative	718	UVA
Topkan (2020)	Turkey	167	Median 57	GBM	Postoperative	565	MVA
Yılmaz (2021)	Turkey	120	/	GBM	Postoperative	1111	MVA
Shi(202 2)	China	232	/	GBM	Preoperative	659.1	MVA
Pasqual etti(202 2)	Italy	77	Median 64	GBM	Preoperative	1200	UVA

N(F/M): numbers of patients(female/male); HGG: high grade glioma; GBM: glioblastoma; UVA: univariate analysis; MVA: multivariate analysis

Supplementary Table S2. Quality evaluation of included studies using the Newcastle Ottawa Scale for cohort studies

Author	Year	Selections				Comparability	Outcome			Scores
		A	B	C	D		F	G	H	
Lv	2019	1	1	1	0	1	1	1	1	7
Topkan	2020	1	1	1	0	1	1	1	1	7
Yilmaz	2021	1	1	1	0	1	1	1	1	7
Shi	2022	1	1	1	0	1	1	1	1	7
Pasqual etti	2022	1	1	1	0	1	1	1	1	7

A: Representativeness of the exposed cohort: Highly representative or partially representative (one point); no description (no point), B: Selection of the non-exposed cohort: Patients drawn from the same community as the exposed cohort (one point); patients drawn from a different source or no description (no point), C: Ascertainment of exposure: Information obtained from secure record or structured interview (one point); written self-report or no description (no point), D: Demonstration that outcome of interest was not present at start of study: yes (one point), no (no point), E: Comparability of cohorts based on the design or analysis: Study controls for important factor, such as age, ECOG, molecular markers, extent of resection, (two points: All factors were included, one point: Part of them were included), F: Assessment of outcome: Independent blind assessment or record linkage (one point); self-report or no description (no point), G: Follow-up long enough for outcomes to occur: Yes (one point); no (no point), H: Adequacy of follow-up of cohorts: Complete follow up-all subjects accounted for or subjects lost to follow up unlikely to introduce bias (one point); no statement (no point).

Supplementary Table S3. Subgroup analysis of OS

			Random-effects model		Fixed-effects model		Heterogeneity	
Analysis		N Ref.	HR (95% CI)	<i>p</i>	HR(95% CI)	<i>p</i>	I ² (%)	Ph
Subgroup								
1	Preoperative	3 21,22,26			1.81(1.43-2.29)	<0.001	0	0.431
	Postoperative	2 20,23	1.92(0.79-4.67)	0.15	/	/	57.0	0.127
				0				
Subgroup								
2	Sample size>100	4 20,21,23,26	/	/	1.87(1.48-2.36)	<0.001	32	0.220
	Sample size≤100	1 22	1.85(1.06-3.23)	0.02	/	/	/	/
				0				
Subgroup								
3	MVA	3 20,21,23	/	/	2.21(1.60-3.07)	<0.001	14.3	0.311
	UVA	2 22,26	/	/	1.64(1.23-2.18)	0.001	0	0.624

N: number of studies; HR: hazard ratio; 95% CI: 95% confidence interval; Ph: p values of Q test for heterogeneity test; UVA: univariate analysis; MVA: multivariate analysis