Table SI. Comparative analysis of preoperative blood test parameters by World Health Organization grade. Reference ranges are assay- and lab-specific.

Biomarker	Normal ranges	Healthy controls	Astrocytoma	Oligodendroglioma	Glioblastoma	P-value
MCHC, g/l	320-360	336.651 ± 5.273	334.957 ± 7.918	334.437 ± 8.547	336.178 ± 8.370	<0.001
HCT, %	Male, 40-50; female, 36-44	42.987 ± 3.813	40.404 ± 4.392	40.767 ± 3.812	40.830 ± 3.975	<0.001
HGB, g/l	Male, 130-170; Female, 120-150	144.833 ± 13.477	135.386 ± 16.048	136.312 ± 14.423	137.373 ± 14.305	<0.05
MONO#, $x10^9$/l	0.2-0.8	0.399 ± 0.110	0.432 ± 0.132	0.417 ± 0.132	0.427 ± 0.155	<0.01
WBC, 10^9g/l	4.0-10.0	5.825 ± 1.296	6.357 ± 1.766	5.704 ± 1.560	6.444 ± 1.842	<0.001
MONO%, %	2.0-10.0	6.876 ± 1.434	6.996 ± 1.860	7.395 ± 2.097	6.770 ± 2.121	>0.05
RBC, $x10^{12}$/l	Male, 4.5-5.9; Female, 4.1-5.1	4.669 ± 0.429	4.490 ± 0.509	4.529 ± 0.442	4.509 ± 0.485	<0.001
RDW-CV, %	11.5-14.5	13.229 ± 0.554	12.932 ± 0.740	12.870 ± 0.710	12.989 ± 0.711	<0.001
LYMPH%, %	20-45	33.453 ± 7.257	31.913 ± 9.823	30.197 ± 9.609	25.534 ± 8.553	<0.001
LYMPH#, $x10^9$/l	1.0-4.0	1.914 ± 0.489	1.874 ± 0.627	1.678 ± 0.571	1.580 ± 0.478	<0.001
MCV, fl	80.0-100.0	92.468 ± 3.693	90.139 ± 4.230	90.248 ± 3.702	91.391 ± 4.094	<0.001
MCH, pg	27-33	31.157 ± 1.370	30.411 ± 1.342	30.214 ± 1.594	30.770 ± 1.437	<0.001
MPV, fl	7.5-11.5	8.874 ± 0.898	10.421 ± 1.623	10.390 ± 1.375	10.366 ± 1.395	<0.001
BASO%, %	0-1	0.754 ± 0.297	0.446 ± 0.246	0.403 ± 0.264	0.404 ± 0.265	<0.001
BASO#, $x10^9$/l	0.0-0.1	0.042 ± 0.017	0.027 ± 0.015	0.023 ± 0.015	0.023 ± 0.015	<0.001
EOS#, $x10^9$/l	0.0-0.5	0.119 ± 0.071	0.092 ± 0.060	0.084 ± 0.051	0.098 ± 0.076	<0.001
EOS%, %	0-5	2.066 ± 1.188	1.578 ± 1.010	1.503 ± 0.892	1.631± 1.289	<0.001
PLT, $x10^9$/l	150-400	223.288 ± 49.942	204.707 ± 52.426	203.675 ± 61.785	197.694 ± 54.019	<0.001
PDW, %	15-20	16.834 ± 0.488	15.188 ± 2.211	14.712 ± 2.417	14.817 ± 2.439	<0.001
PCT, ng/l	0.10-0.28	0.198 ± 0.041	0.210 ± 0.055	0.207 ± 0.062	0.204 ± 0.056	<0.01
NEUT%, %	40-75	56.261 ± 7.912	59.025 ± 11.280	59.837 ± 10.101	65.209 ± 10.142	<0.001
NEUT#, $x10^9$/l	1.8-7.5	3.275 ± 0.940	3.636 ± 1.265	3.263 ± 1.019	4.143 ± 1.524	<0.001

Data presented as mean ± standard deviation. MCHC, mean corpuscular hemoglobin concentration; HCT, hematocrit; HGB, hemoglobin; MONO#, monocyte count; WBC, white blood cell count; MONO%, monocyte percentage; RBC, red blood cell count; RDW-CV, red cell distribution width - coefficient of variation; LYMPH%, lymphocyte percentage; LYMPH#, lymphocyte count; MCV, mean corpuscular volume; MCH, mean corpuscular hemoglobin; MPV, mean platelet volume; BASO%, basophil percentage; BASO#, basophil count; EOS#, eosinophil count; EOS%, eosinophil percentage; PLT, platelet count; PDW, platelet distribution width; PCT, plateletcrit; NEUT%, neutrophil percentage; NEUT#, neutrophil count.

Table SII. Cut-off values of the preoperative blood test index and the corresponding data volume.

Biomarker	Cut-off value	High group count, n (%)	Low group count, n (%)
MCHC, g/l	338.53	892 (36.03)	1,584 (63.97)
HCT, %	41.51	1,489 (60.14)	987 (39.86)
HGB, g/l	139.01	1,232 (49.76)	1,244 (50.24)
MONO#, x10^9/l	0.41	1,129 (45.60)	1,347 (54.40)
WBC, x10^9g/l	6.09	1,027 (41.48)	1,449 (58.52)
MONO%, %	7.19	1,034 (41.76)	1,442 (58.24)
RBC, x10^{12}/l	4.55	1,405 (56.74)	1,071 (43.26)
RDW-CV, %	13.23	1,145 (46.24)	1,331 (53.76)
LYMPH%, %	34.29	952 (38.45)	1,524 (61.55)
LYMPH#, x10^9/l	2.03	901 (36.39)	1,575 (63.61)
MCV, fl	92.24	1,228 (49.60)	1,248 (50.40)
MCH, pg	31.18	1,246 (50.32)	1,230 (49.68)
MPV, fl	9.77	753 (30.41)	1,723 (69.59)
BASO%, %	0.62	1,423 (57.47)	1,053 (42.53)
BASO#, x10^9/l	0.05	799 (32.27)	1,677 (67.73)
EOS#, x10^9/l	0.11	1,261 (50.93)	1,215 (49.07)
EOS%, %	1.74	1,262 (50.97)	1,214 (49.03)
PLT, x10^9/l	217.5	1,202 (48.55)	1,274 (51.45)
PDW, %	17.07	654 (26.41)	1,822 (73.59)
PCT, ng/l	0.21	1,020 (41.20)	1,456 (58.80)
NEUT%, %	60.36	928 (37.48)	1,548 (62.52)
NEUT#, x10^9/l	3.58	960 (38.77)	1,516 (61.23)

MCHC, mean corpuscular hemoglobin concentration; HCT, hematocrit; HGB, hemoglobin; MONO#, monocyte count; WBC, white blood cell count; MONO%, monocyte percentage; RBC, red blood cell count; RDW-CV, red cell distribution width - coefficient of variation; LYMPH%, lymphocyte percentage; LYMPH#, lymphocyte count; MCV, mean corpuscular volume; MCH, mean corpuscular hemoglobin; MPV, mean platelet volume; BASO%, basophil percentage; BASO#, basophil count; EOS#, eosinophil count; EOS%, eosinophil percentage; PLT, platelet count; PDW, platelet distribution width; PCT, plateletcrit; NEUT%, neutrophil percentage; NEUT#, neutrophil count.