

Table S1. The comparison of clinical information between the two groups.

Variable	Training set n=113	Test set N=23	P value
Age (Mean \pm SD)	23.04 \pm 16.84	34.39 \pm 17.27	0.004 ^a
Gender			0.222 ^a
Male	53(46.9%)	14(60.9%)	
Female	60(53.1%)	9(39.1%)	
Tumor size			0.796 ^a
\geq 1mm	11(9.7%)	1(4.4%)	
\geq 2mm	13(11.5%)	3(13.0%)	
\geq 3mm	53(46.9%)	10(43.5%)	
\geq 4mm	36(31.9%)	9(39.1%)	
Tumor location			0.409 ^a
Thalamus	46(40.7%)	14(60.9%)	
Midbrain	4(3.5%)	1(4.3%)	
Pontine	42(37.2%)	5(21.7%)	
Medulla	3(2.7%)	1(4.3%)	
Basal ganglia	18(15.9%)	2(8.7%)	
Extent of resection			0.125 ^a
GTR	21(18.6%)	9(39.1%)	
STR	28(24.8%)	4(17.4%)	
PR	54(47.8%)	7(30.4%)	
Biopsy	10(8.8%)	3(13.1%)	
Pre-op KPS (Mean \pm SD)	71.15 \pm 17.10	74.35 \pm 15.62	0.409
Enhancement			0.637 ^a
Yes	65(57.5%)	12(52.2%)	
No	48(42.5%)	11(47.8%)	
Radiotherapy			0.020 ^a
Yes	31(27.4%)	12(52.2%)	
No	82(72.6%)	11(47.8%)	
Chemotherapy			0.303 ^a
Yes	32(28.3%)	9(39.1%)	
No	81(71.7%)	14(60.9%)	
ATRX expression			0.022 ^b
Yes	77(68.1%)	12(52.1%)	
No	26(23.0%)	11(47.9%)	
Missing	10(8.9%)	0	
P53 positive			1.000 ^b
Yes	80(70.8%)	19(82.6%)	

No	17(15.0%)	4(17.4%)	
Missing	16(14.2%)	0	
Ki67 expression (Mean \pm SD)	0.25 \pm 0.15	0.20 \pm 0.14	0.240
MGMT promoter methylation			0.817 ^b
Methylated	20(17.7%)	6(26.1%)	
Unmethylated	64(56.7%)	17(73.9%)	
Missing	29(25.6%)	0	
Status			0.877 ^a
Dead	102(90.3%)	21(91.3%)	
Alive	11(9.7%)	2(8.7%)	
Survival time (Mean \pm SD)	9.41 \pm 12.11	10.37 \pm 8.78	0.719

^a is for Chi-square test, ^b is for Fisher's exact test.