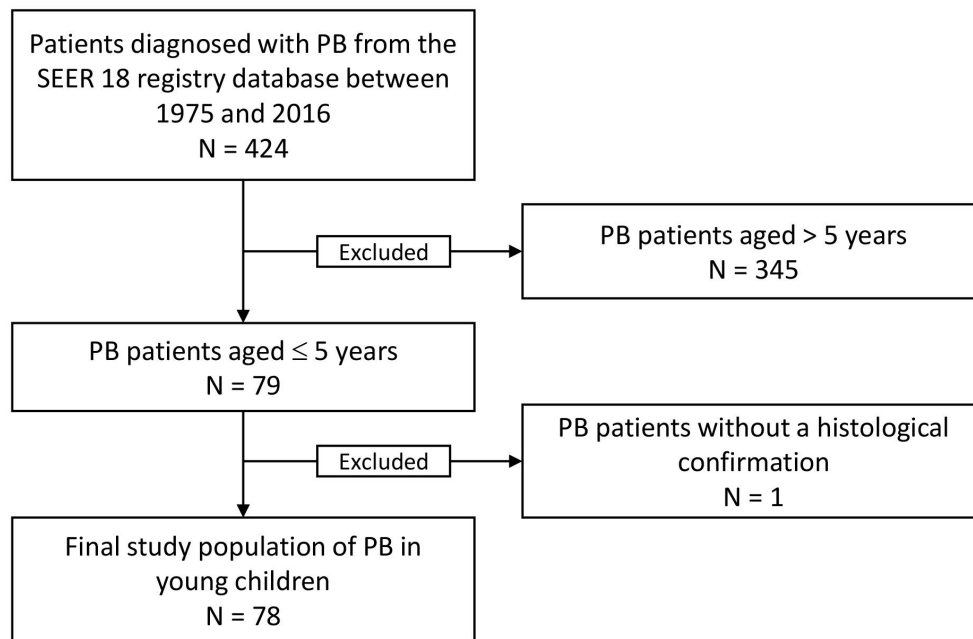
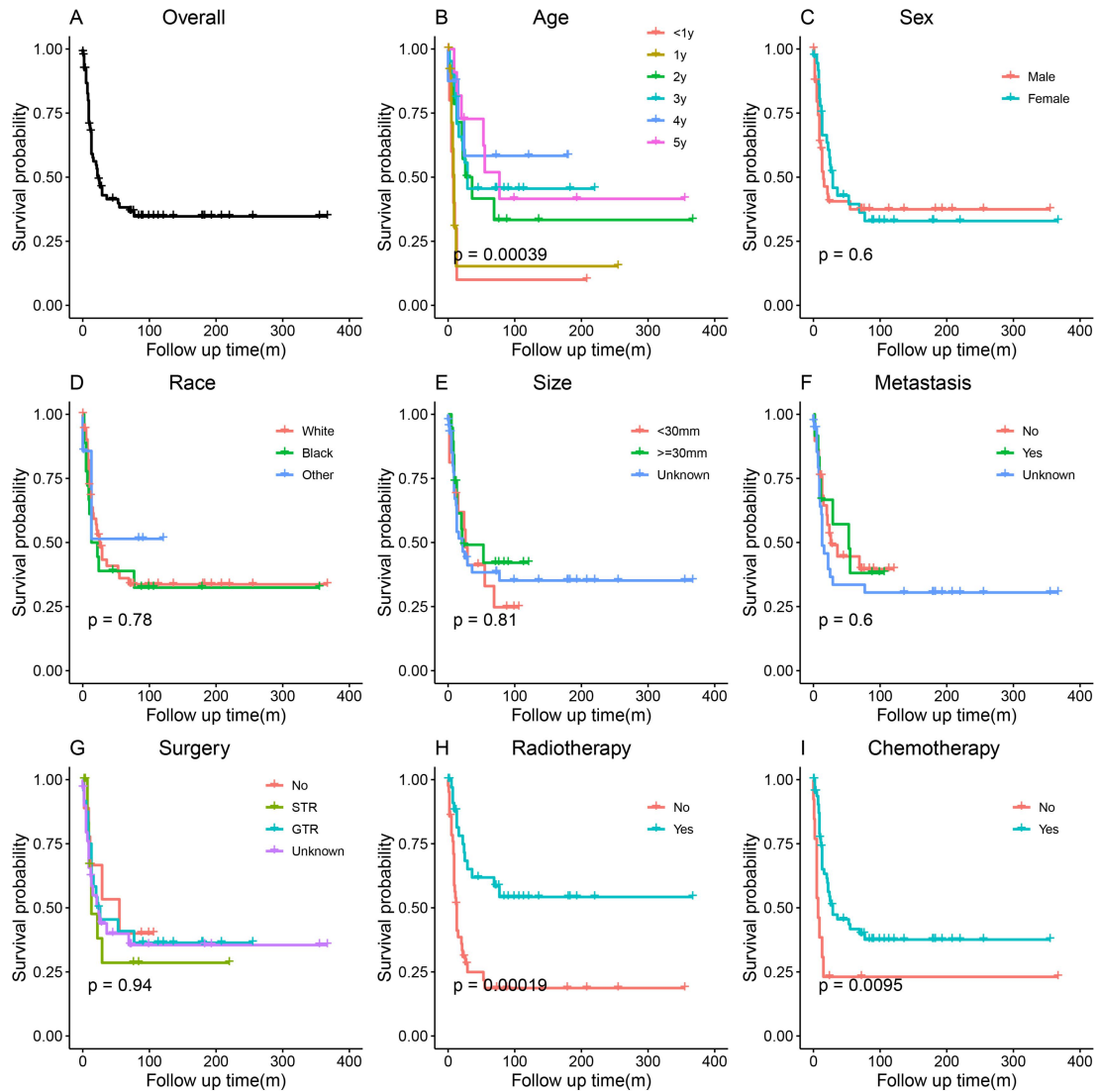


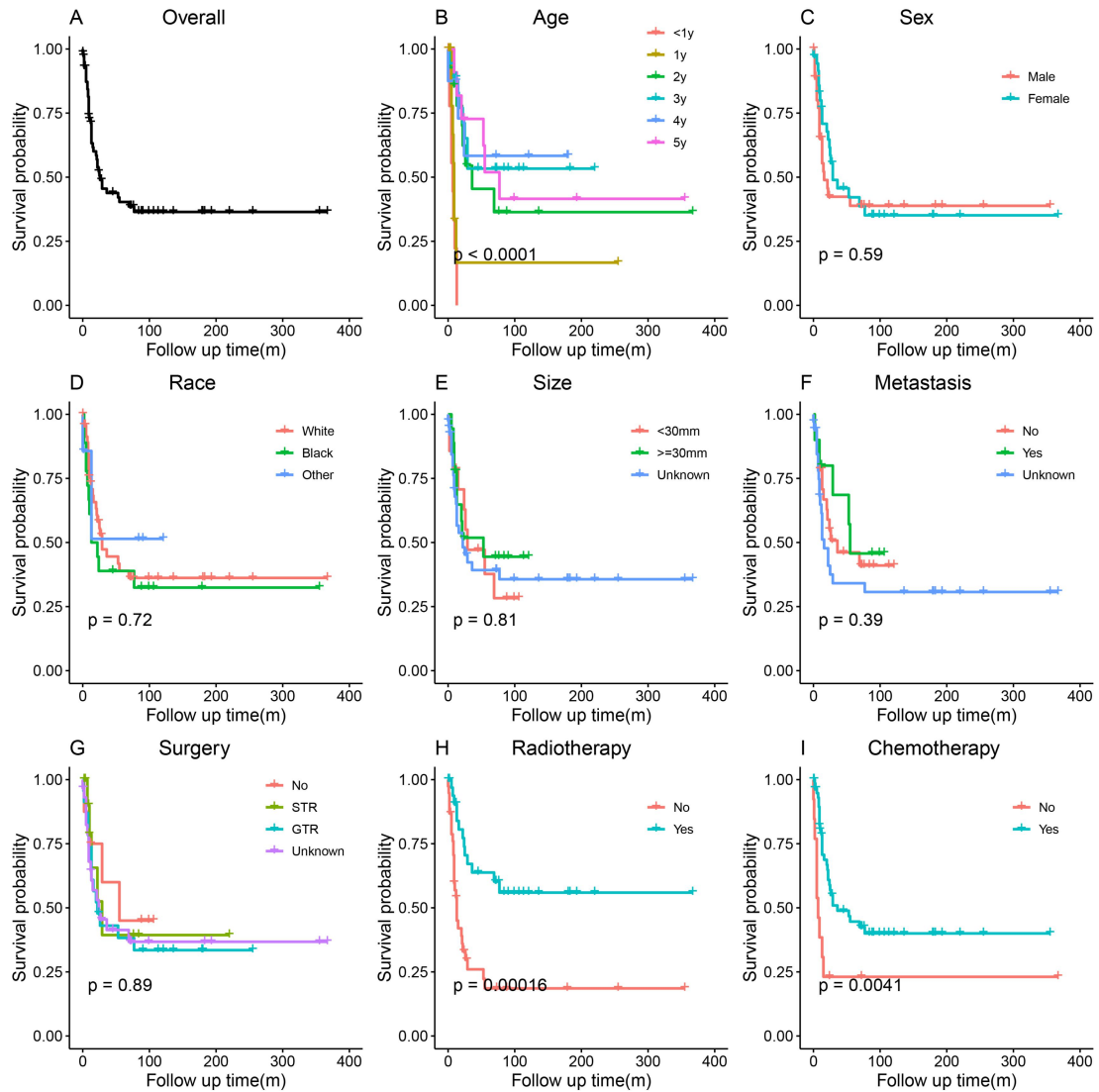
Supplementary Materials



Supplementary Figure 1: Flowchart of patient selection.



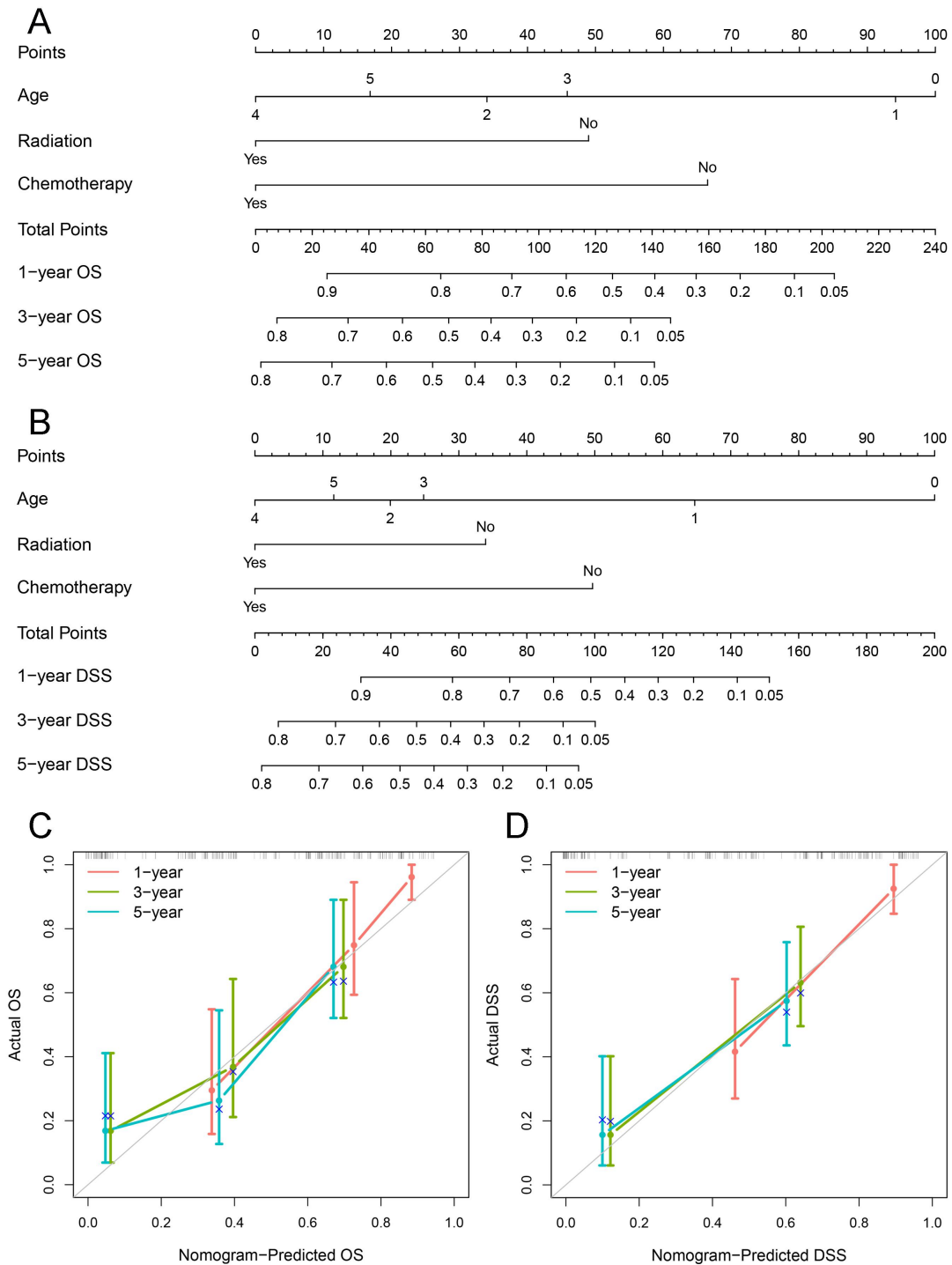
Supplementary Figure 2: The Kaplan–Meier curves for PB patients aged ≤ 5 years. (A) OS for the whole cohort, (B) OS stratified by age at diagnosis, (C) OS stratified by sex, (D) OS stratified by race, (E) OS stratified by tumor size, (F) OS stratified by metastasis status, (G) OS stratified by surgery procedure, (H) OS stratified by receipt of radiotherapy, (I) OS stratified by receipt of chemotherapy. OS: Overall survival; PB: Pineoblastoma.



Supplementary Figure 3: The Kaplan–Meier curves for PB patients aged ≤ 5 years.

(A) DSS for the whole cohort, (B) DSS stratified by age at diagnosis, (C) DSS stratified by sex, (D) DSS stratified by race, (E) DSS stratified by tumor size, (F) DSS stratified by metastasis status, (G) DSS stratified by surgery procedure, (H) DSS stratified by receipt of radiotherapy, (I) DSS stratified by receipt of chemotherapy.

DSS: Disease-specific survival; PB: Pineoblastoma.



Supplementary Figure 4: The developed nomograms to make individualized predictions of 1-year, 3-year, and 5-year (A) OS and (B) DSS. The calibration curves of the nomograms for 1-year, 3-year, and 5-year (C) OS and (D) DSS. DSS: Disease-specific survival; OS: Overall survival.

Supplementary Table 1: Baseline characteristics of PB patients aged ≤5 years in the SEER 18 Registry database, 1975–2016.

Characteristics	Number of patients	Percentage (%)
Total	78	100
Follow-up time (month)		
Median (IQR)	18.00 (8.75 - 76.25)	
Age (years)		
Mean ± SD	2.45 ± 1.584	
Median (IQR)	3.00 (1.00 - 3.25)	
< 1	11	14.1
1	13	16.7
2	14	17.9
3	21	26.9
4	8	10.3
5	11	14.1
Sex		
Male	41	52.6
Female	37	47.4
Race		
White	53	67.9
Black	18	23.1
Other	7	9.0
Tumor size		
< 30 mm	16	20.5
≥ 30 mm	19	24.4
Unknown	43	55.1
Metastasis		
No	29	37.2
Yes	12	15.4
Unknown	37	47.4
Surgical procedure		
No surgery	9	11.5
STR	14	17.9
GTR	24	30.8
Surgery, NOS	31	39.7
Radiotherapy		
No	42	53.8
Yes	36	46.2
Chemotherapy		
No	13	16.7
Yes	65	83.3

PB: Pineoblastoma; SEER: Surveillance Epidemiology and End Results; STR: Subtotal resection; GTR: Gross-total resection; NOS: Not otherwise specified.

Supplementary Table 2: Univariate Cox proportional-hazard models for OS and DSS.

Variable	Overall survival		Disease-specific survival	
	HR (95% CI)	<i>P</i>	HR (95% CI)	<i>P</i>
Age (years)		0.002		<0.001
< 1	Reference		Reference	
1	0.876 (0.336-2.283)	0.787	0.443 (0.161-1.219)	0.115
2	0.293 (0.115-0.751)	0.011	0.132 (0.047-0.373)	<0.001
3	0.238 (0.097-0.585)	0.002	0.092 (0.032-0.263)	<0.001
4	0.169 (0.045-0.633)	0.008	0.084 (0.021-0.335)	<0.001
5	0.211 (0.074-0.603)	0.004	0.105 (0.034-0.322)	<0.001
Sex				
Male	Reference		Reference	
Female	0.860 (0.482-1.535)	0.610	0.846 (0.458-1.564)	0.594
Race		0.788		0.725
White	Reference		Reference	
Black	1.133 (0.581-2.207)	0.715	1.254 (0.632-2.487)	0.518
Other	0.730 (0.223-2.393)	0.603	0.808 (0.244-2.676)	0.808
Tumor size		0.822		0.812
< 30 mm	Reference		Reference	
≥ 30 mm	0.768 (0.326-1.811)	0.547	0.825 (0.327-2.080)	0.683
Unknown	0.928 (0.456-1.887)	0.836	1.063 (0.491-2.299)	0.877
Metastasis		0.611		0.407
No	Reference		Reference	
Yes	0.990 (0.406-2.409)	0.982	0.793 (0.287-2.187)	0.654
Unknown	1.337 (0.705-2.534)	0.374	1.402 (0.721-2.724)	0.319
Surgical procedure		0.943		0.892
No surgery	Reference		Reference	
STR	1.357 (0.443-4.157)	0.593	1.116 (0.299-4.167)	0.870
GTR	1.127 (0.409-3.103)	0.818	1.428 (0.473-4.308)	0.527
Surgery, NOS	1.259 (0.467-3.395)	0.649	1.414 (0.475-4.209)	0.533
Radiotherapy				
No	Reference		Reference	
Yes	0.321 (0.170-0.608)	<0.001	0.301 (0.154-0.587)	<0.001
Chemotherapy		1		
No	Reference		Reference	
Yes	0.412 (0.203-0.835)	0.014	0.369 (0.180-0.758)	0.007

HR, hazard ratio; CI, confidence interval; STR, subtotal resection; GTR, gross-total resection; NOS, not otherwise specified; DSS: Disease-specific survival; OS: Overall survival.

