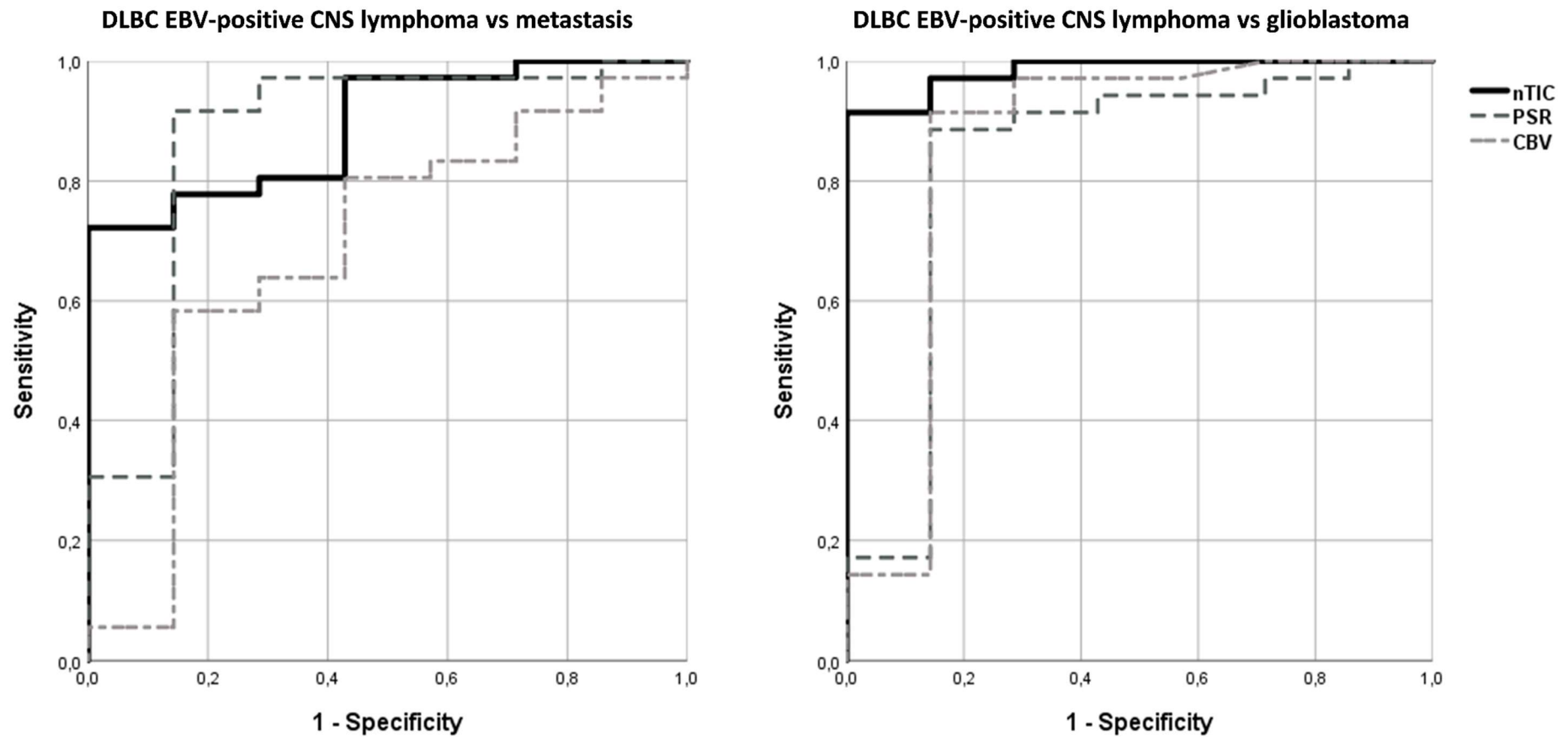
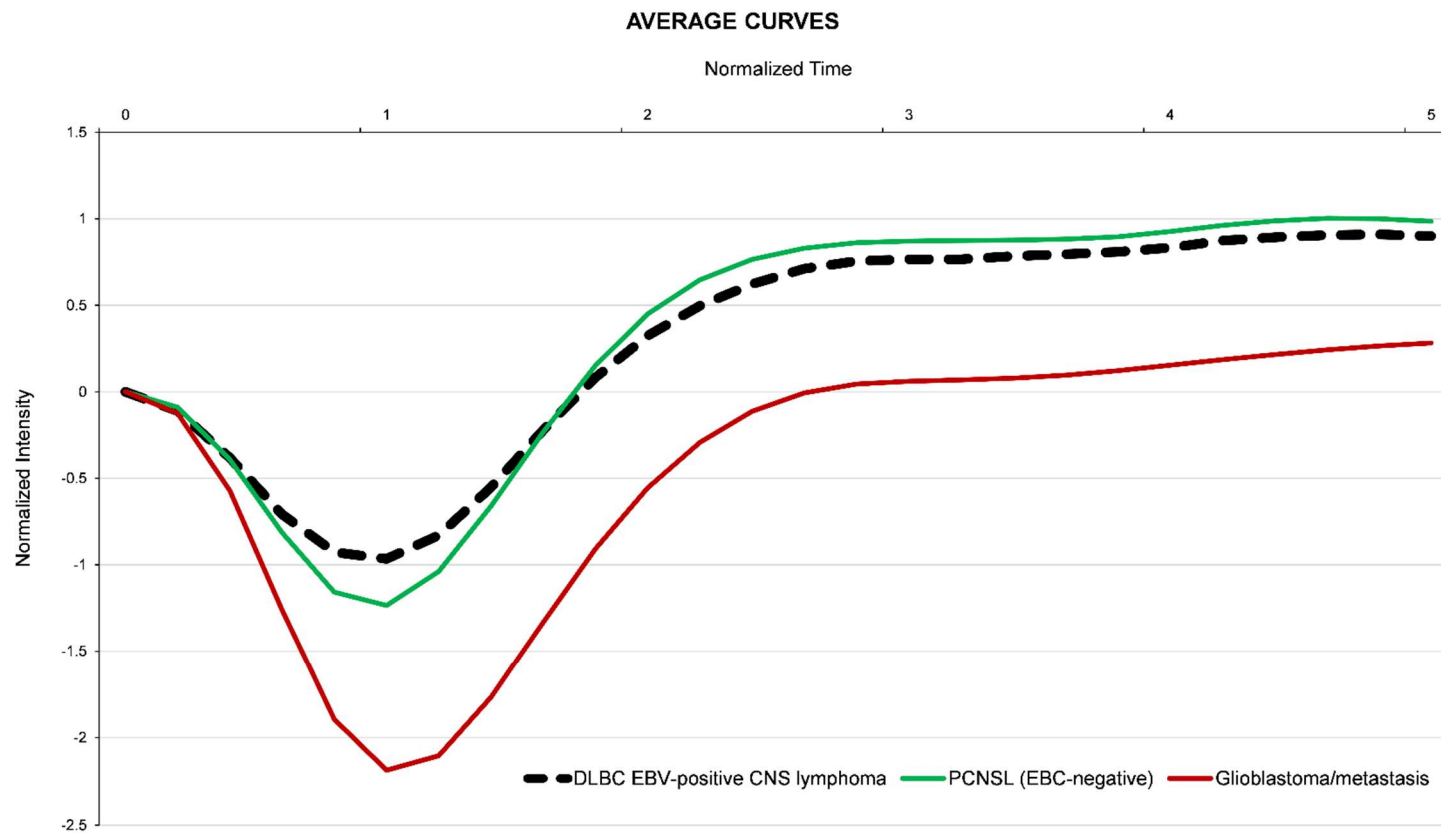


**Supplemental Table 1.** Adapted one-way classifier algorithm for presurgical differentiation of PCNSL and glioblastoma/metastasis with the intercept and the relative power (coefficient) for each selected normalized time point to apply on the formula:  $(\text{Intercept}_i) + \sum (\text{variable}_i * \text{coefficient}_i)$ . The model\_variables correspond to the normalized intensity value for each concrete normalized time point.

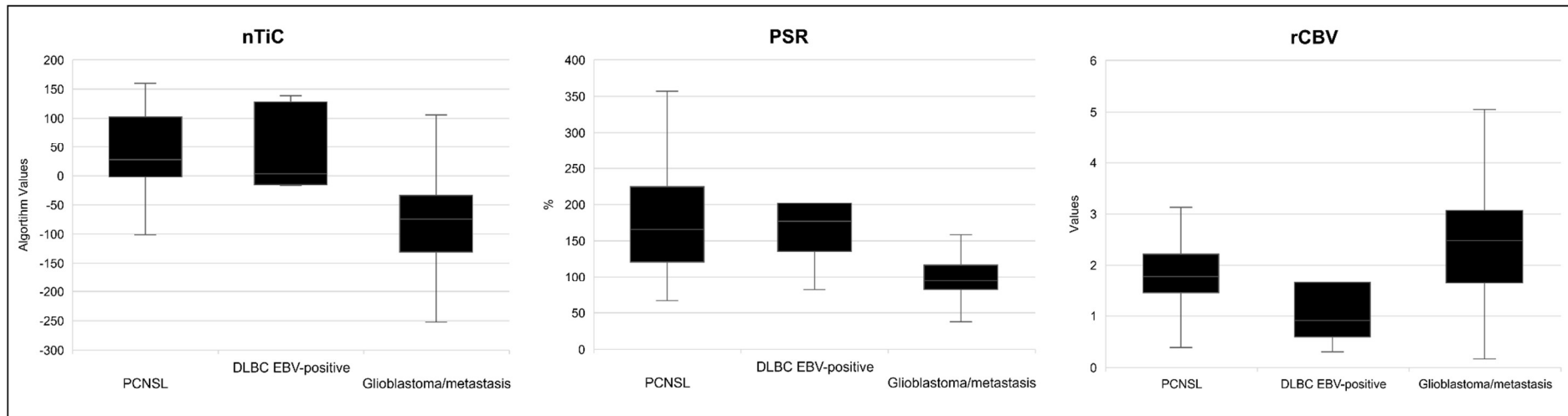
PCNSL vs glioblastoma/metastasis	
model_variables	model_coefficients
(Intercept)	2.15151513221515
1.6 <sub>i</sub>	28.6375383219505
1.8 <sub>i</sub>	29.41774519209
2 <sub>i</sub>	28.8925374257706
2.2 <sub>i</sub>	26.7712443181936
2.4 <sub>i</sub>	23.8223558668555



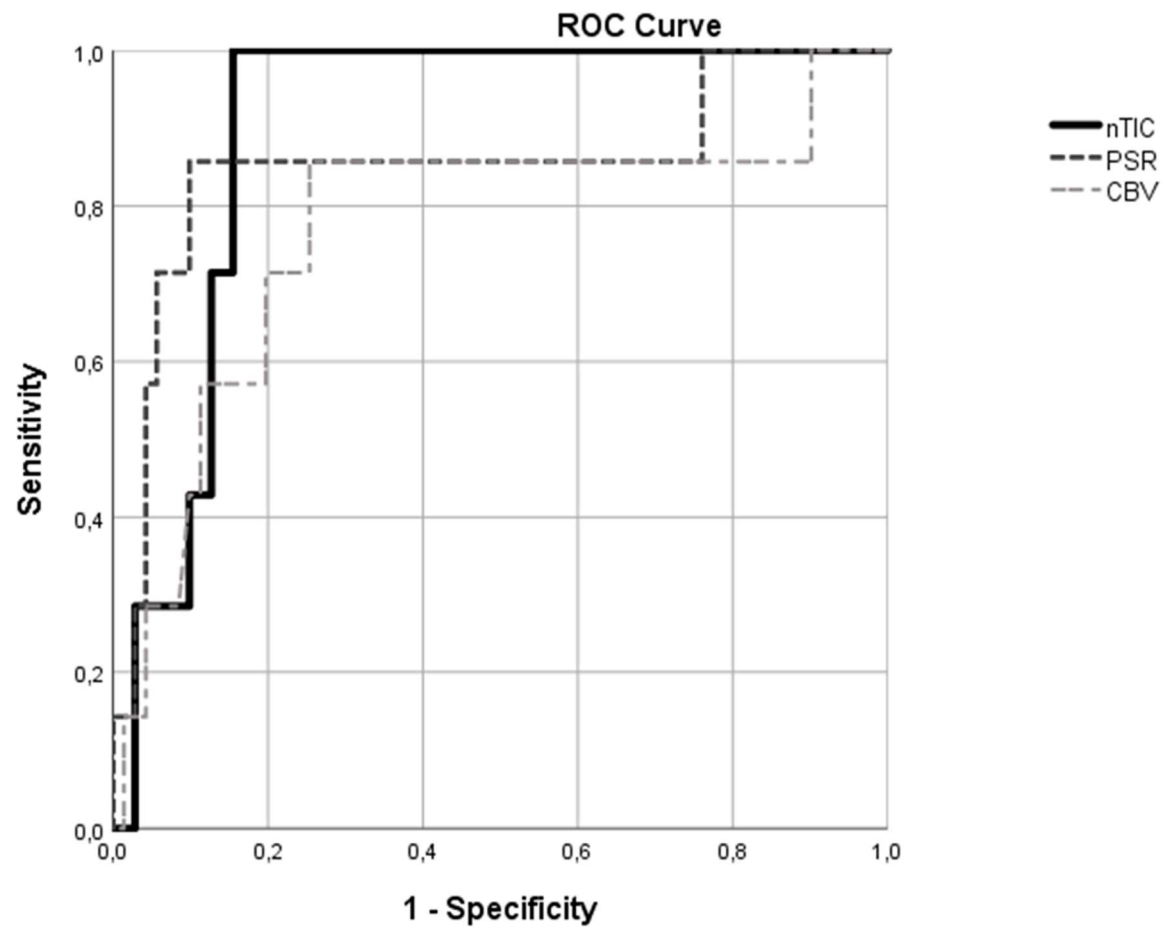
**Supplemental Figure 1.** ROC curves of nTIC algorithms, percentage of signal recovery (PSR), and relative CBV for pair-wised comparison of DLBC EBV-positive CNS lymphoma vs metastasis and vs glioblastoma.



**Supplemental Figure 2.** Average normalized time-intensity curves of DLBC EBV-positive CNS lymphoma, PCNSL (EBV-negative) and glioblastoma/metastasis as a whole. Scarce differences may be seen between DLBCL EBV-positive CNS lymphoma and PCNSL. The most relevant visual differences between DLBCL EBV-positive CNS lymphoma and glioblastoma/ metastasis are seen around the maximal-signal-intensity-drop and the signal-recovery segments of the curves.



**Supplemental Figure 3.** Box plots depicting the results of the normalized time-intensity curve (nTIC) adapted algorithms to differentiate PCNSL vs glioblastoma/metastasis as a whole for each tumor subtype. Also, box plots for PSR and rCBV values for each tumor subtype.



**Supplemental Figure 4.** ROC curves of nTIC algorithms, percentatge of signal recovery (PSR), and relative CBV for one-way comparison with glioblastoma/metastasis as a whole.