Figure S1. Forest map of the AUC score of each model. The Y-axis represents the AUC scores of the intratumoral + peritumoral prediction models constructed by the different algorithms. The error line in the plot is the ROC mean and standard deviation, compared with other models. TI-LightGBM model has the shortest error-line and the smallest ROC mean and standard deviation. (A) T1WI. (B) T2WI. (C) Diffusion-weighted imaging. AUC, area under the curve; ROC, receiver operating characteristic; LightGBM, Light Gradient Boosting Machine; WI, weighted image; GNB, Gaussian Naive Bayes.

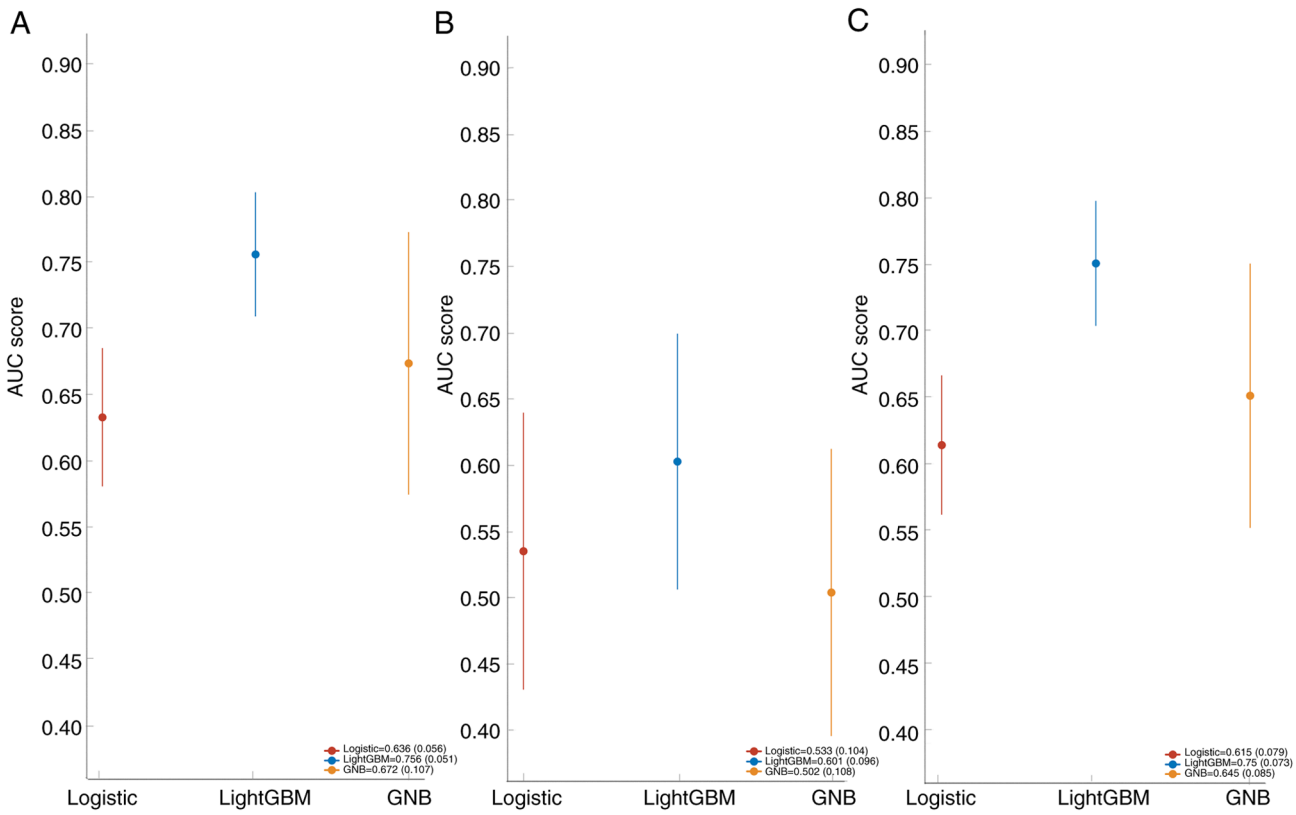

Figure S2. SHAP analysis of the intratumoral + peritumoral T1-LightGBM model. (A) Attributes of characteristics in SHAP; each line represents a feature, and the abscissa is the SHAP value. (B) SHAP plot demonstrates how the radiomics model distinguishes the pathological grading of patients; the length of the arrows indicates the contribution of specific features to the SHAP values (expressed as percentages) and the color represents whether the contribution is positive (red) or negative (blue). SHAP, Shapley Additive explanations; LightGBM, Light Gradient Boosting Machine.