



Supplementary Fig. 2. Representative case in which a subtype conversion from HR+/HER2+ to HR-/HER2+ occurred. T1CE and T2WI images are shown in (A). In the waterfall plot of the case in (B), red arrows indicate feature effects driving the prediction value higher, and blue arrows indicate effects driving the prediction value lower, depicted with the magnitude of the corresponding feature's effect. Feature 0, feature 1, feature 2, and feature 3 denote "glszm_LargeAreaLowGrayLevelEmphasis" on the T1CE image, "gldm_LargeDependenceLowGrayLevelEmphasis" on the T2WI image, "firstorder_Energy" on the T2WI image, and the primary lesion subtype, respectively. The value of 2 for feature 3 indicates the HR+/HER2+ subtype of the primary lesion. For comparison, T1CE and T2WI images of the cases with the highest SHAP values for prediction of HR+/HER2+ subtype and HR-/HER2+ subtype are depicted in (C) and (D), respectively. The predictions of the model were correct in both cases.