

Supplementary Material S2 The Detailed Features After Selection

ROI	Sequence	Number	Detailed Features
2D	T1WI	12	original_shape_VoxelVolume、logarithm_ngtdm_Busyness、 square_glrIm_GrayLevelNonUniformity、lbp- 2D_glrIm_GrayLevelNonUniformity、wavelet- LHH_ngtdm_Coarseness、original_glszm_GrayLevelNonUniformity、 original_shape_SurfaceVolumeRatio、square_glszm_ZoneVariance、 wavelet-HHH_glcM_ClusterShade、 gradient_gldm_GrayLevelNonUniformity、 exponential_glszm_GrayLevelNonUniformityNormalized、 lbp-2D_glrIm_RunLengthNonUniformity
	T2WI	6	bp-2D_firstorder_TotalEnergy、original_shape_VoxelVolume、 wavelet-HHL_glrIm_GrayLevelNonUniformity、 square_ngtdm_Coarseness、gradient_ngtdm_Coarseness、 logarithm_glrIm_RunVariance、
	CE-T1	12	original_shape_VoxelVolume、 original_shape_Maximum2DDiameterColumn、 original_shape_MinorAxisLength、 wavelet-LLH_gldm_SmallDependenceLowGrayLevelEmphasis、 gradient_ngtdm_Busyness、original_shape_SurfaceArea、wavelet- HHH_glcM_ClusterShade、gradient_glszm_ZoneVariance、 lbp-2D_gldm_DependenceNonUniformityNormalized、 lbp-2D_gldm_DependenceEntropy、 wavelet-LHH_glcM_ClusterShade、wavelet- LHL_ngtdm_Coarseness、
	T1WI+ T2WI+ CE-T1	13	original_shape_VoxelVolume、original_shape_Elongation、 logarithm_ngtdm_Busyness、 wavelet-LLH_gldm_SmallDependenceLowGrayLevelEmphasis、 gradient_ngtdm_Busyness、wavelet- HHL_glrIm_GrayLevelNonUniformity、wavelet- HHH_glcM_ClusterShade、gradient_glszm_ZoneVariance、 wavelet-LLH_glszm_SmallAreaLowGrayLevelEmphasis、 wavelet-LHH_firstorder_Mean、lbp-2D_gldm_DependenceEntropy、 wavelet-HHH_glcM_ClusterShade、wavelet- HHL_gldm_GrayLevelNonUniformity
3D	T1WI	6	original_shape_Maximum2DDiameterColumn、 original_shape_SurfaceArea、original_shape_MinorAxisLength、lbp- 2D_firstorder_TotalEnergy、 wavelet-HLH_firstorder_Skewness、

			original_shape_Maximum3DDiameter
			original_shape_MeshVolume、
			original_shape_Maximum2DDiameterColumn、 wavelet-
			HHL_firstorder_Mean、 exponential_glszm_ZoneVariance、
			logarithm_glszm_LargeAreaHighGrayLevelEmphasis、 wavelet-
T2WI	8		LLL_glcmm_Imc2、
			exponential_glszm_SmallAreaLowGrayLevelEmphasis、
			wavelet-HHL_firstorder_Skewness
CE-T1	1		original_shape_Maximum2DDiameterColumn
			original_shape_Maximum2DDiameterColumn、 wavelet-
			HHL_firstorder_Mean、 original_shape_LeastAxisLength、
			exponential_glszm_SmallAreaLowGrayLevelEmphasis、
			wavelet-HLH_firstorder_Kurtosis、 gradient_firstorder_Kurtosis、
			lbp_glszm_SmallAreaEmphasis、
			lbp_glszm_SmallAreaHighGrayLevelEmphasis、
T1WI+	16		lbp_glszm_SmallAreaLowGrayLevelEmphasis、
T2WI+			lbp-m1_glszm_SmallAreaEmphasis、
CE-T1			lbp-m1_glszm_SmallAreaHighGrayLevelEmphasis、
			lbp-m1_glszm_SmallAreaLowGrayLevelEmphasis、
			lbp-m2_glszm_SmallAreaHighGrayLevelEmphasis、
			lbp-m2_glszm_SmallAreaLowGrayLevelEmphasis、
			wavelet-HLH_firstorder_Skewness、
			lbp_glszm_GrayLevelNonUniformity
			original_shape_VoxelVolume、 wavelet-HHL_firstorder_Mean、
			original_shape_Elongation、 logarithm_ngtdm_Busyness、
			wavelet-LLH_gldm_SmallDependenceLowGrayLevelEmphasis、
			exponential_glszm_SmallAreaLowGrayLevelEmphasis、
			wavelet-HLH_firstorder_Kurtosis、 gradient_ngtdm_Busyness、
			gradient_firstorder_Kurtosis、 wavelet-HHH_glcmm_ClusterShade、
2D & 3D	20		lbp-2D_glszm_SmallAreaEmphasis、 gradient_glszm_ZoneVariance、
			wavelet-HLH_firstorder_Skewness、
			wavelet-LLH_glszm_SmallAreaLowGrayLevelEmphasis、
			wavelet-LHH_firstorder_Mean、 lbp-2D_gldm_DependenceEntropy、
			lbp-2D_glszm_GrayLevelNonUniformity、
			lbp-3D-m1_glszm_GrayLevelNonUniformity、 wavelet-
			HHH_glcmm_ClusterShade、 wavelet-LHH_glcmm_ClusterShade