

PART 1

Supplementary table 1. MRI machine parameters

Parameters	T2WI	
	Achieva, Philips	Signa HDxt
Sequence	TSE/FS	FRFSE
TR (ms)	4900	3800
TE (ms)	90	110
Flip angle (degree)	90	90
Echo train length	19	32
Field of view (mm × mm)	220×220	260×260
Acquisition Matrix	220×220	320×220
	0	4
Slice Thickness (mm)	3.5	3.5

TR, repetition time; TE, time echo; SE, spin echo; FS, fat suppression; DWI, diffusion-weighted imaging; FRFSE, fast relaxation fast spin echo; SE-EPI, spin-echo echo planar imaging.

PART 2

Feature selection

We used two feature selection method, the maximum correlation minimum redundancy (mRMR) and the least absolute shrinkage and selection operator (LASSO) to select the feature. At first, mRMR was performed to eliminate the redundant and irrelevant features, 20 features were retained. Then LASSO was conducted to choose the optimized subset of features to construct the final model.

After the number of features determined, the most predictive subset of feature was chosen and the corresponding coefficients were evaluated. Radscore was calculated by summing the selected features weighted by their coefficients.

Supplementary table 2. The feature composition of each model.

Models	Feature no.	Radiomics feature name
CE-MRI	1	T1WI-AP-lbp-3D-m1_firstorder_Median
	2	T1WI-PP-wavelet-LLL_glcM_ClusterShade
	3	T1WI-AP-wavelet-LLH_gldm_DependenceNonUniformityNormalized
	4	T1WI-AP-wavelet-LLH_glcM_Idmn
	5	T1WI-AP-log-sigma-2-0-mm-3D_glszm_SmallAreaLowGrayLevelEmphasis
	6	T1WI-PP-wavelet-LLL_glcM_ClusterProminence
	7	T1WI-PP-log-sigma-3-0-mm-3D_glcM_MaximumProbability
	8	T1WI-AP-lbp-3D-m1_firstorder_90Percentile

9	T1WI-AP-log-sigma-2-0-mm-3D_glszm_GrayLevelNonUniformity
10	T1WI-AP-original_firstorder_Minimum
11	T1WI-AP-wavelet-HHH_glszm_GrayLevelVariance
12	T1WI-AP-original_glcm_Imc2
13	T1WI-PP-wavelet-HLH_firstorder_Mean
14	T1WI-PP-wavelet-LLL_ngtdm_Contrast
15	T1WI-PP-wavelet-HHL_firstorder_Skewness
16	T1WI-PP-wavelet-HLL_glszm_SizeZoneNonUniformityNormalized

CE-MRI Radscore = 0.218* T1WI-AP-lbp-3D-m1_firstorder_Median +0.457*
T1WI-PP-wavelet-LLL_glcm_ClusterShade+-0.909*T1WI-AP-wavelet-LLH_gldm
_DependenceNonUniformityNormalized +1.492*
T1WI-AP-wavelet-LLH_glcm_Idmn+-0.843*T1WI-AP-log-sigma-2-0-mm-3D_gl
szm_SmallAreaLowGrayLevelEmphasis+-0.208*T1WI-PP-wavelet-LLL_glcm_Clu
sterProminence+-0.635*T1WI-PP-log-sigma-3-0-mm-3D_glcm_MaximumProbabi
lity+-0.162*T1WI-AP-lbp-3D-m1_firstorder_90Percentile+-1.025*T1WI-AP-log-si
gma-2-0-mm-3D_glszm_GrayLevelNonUniformity+-0.227*T1WI-AP-original_firs
torder_Minimum + -0.892* T1WI-AP-wavelet-HHH_glszm_GrayLevelVariance
+ -0.08* T1WI-AP-original_glcm_Imc2+ -0.111*
T1WI-PP-wavelet-HLH_firstorder_Mean+0.76*
T1WI-PP-wavelet-LLL_ngtdm_Contras+0.663*T1WI-PP-wavelet-HHL_firstorder_
Skewness+ -0.559*T1WI-PP-wavelet-HLL_glszm_SizeZoneNonUniformityNormali

zed + -0.272