SUPPLEMENTARY MATERIALS

Table S1. Texture analysis parameters calculated with Lifex Software, and corresponding description.

Type of radiomics Feature	Radiomics Feature Name	Description
Indices from Histogram: provides informations derived from global histogram analysis	Volume.ml	Measures the volume in voxels or millilitre
	Skewness	measures the asymmetry of the gray-level distribution in the histogram.
	Kurtosis	measures whether the gray-level distribution is peaked or flat relative to a normal distribution.
	Entropy	mesures the randomness of the distribution
	Energy	measures the uniformity of the distribution
Indices from Sphericity	Sphericity	Measures how spherical a Volume of Interest is
	Compacity	Measures the degree to which the Volume of Interest is compact
Co-occurrence Matrix (GLCM): takes into account the arrangements of pairs of voxels to extract textural indices.	GLCM.homogeneity	Homogeneity of gray-level voxel pairs
	GLCM.energy	Uniformity of gray-level voxel pairs.
	GLCM.contrast	Local variations in the GLCM.
	GLCM.correlation	Linear dependency of gray-levels in GLCM.
	GLCM.entropy	Randomness of gray-level voxel pairs.
	GLCM.dissimilarity	Variation of gray-level voxel pairs.

Table S2. Reliability analysis of TA parameters.

TA Parameter	T2-MRI ICC (single measure)	DWI-MRI ICC (single measure)	ADC-MRI ICC (single measure)
Volume.ml	0.970	0.887	0.881
Skewness	0.743	0.912	0.826
Kurtosis	0.387	0.925	0.943
Entropy	0.588	0.735	0.873
Energy	0.584	0.356	0.825
Sphericity	0.847	0.393	0.868
Compacity	0.711	0.772	0.756
GLCM.homogeneity	0.757	0.726	0.806
GLCM.energy	0.688	0.234	0.590
GLCM.contrast	0.238	0.807	0.727
GLCM.correlation	0.656	0.846	0.431
GLCM.entropy	0.811	0.736	0.866

GLCM.dissimilarity	0.715	0.838	0.745

Table S3. Logistic regression analysis performed on both Training Dataset and Validation Dataset.

Logistic Regression Analysis					
Endpoint	**Parameter**	**p-value**	**B**	**OR (95% CI)**	**Dataset**
TRG 1	ADC GLCM Delta Entropy	<0.001	-1.97	0.14 (0.03-0.54)	Training dataset
TRG 1	ADC GLCM Delta Entropy	0.001	-2.48	0.08 (0.01-0.73)	Validation Dataset 1
TRG 1	ADC GLCM Delta Entropy	0.008	-3.43	0.06 (0.01-0.052)	Validation Dataset 2

Table S4. Characteristics of the ROC Curves. 2LL: 2 log-likelihood; R^2: Nagelkerke R^2, AUC: Area Under the Curve of the ROC; SE: standard error; HL: Hosmer–Lemeshow.

	Training Dataset	**Validation Dataset 1**	**Validation Dataset 2**
-2LL	28.46	19.01	17.23
R^2	0.477	0.507	0.469
AUC	0.874	0.926	0.888
SE	0.058	0.048	0.089
HL X^2	3.92	4.66	8.31
HL *p*-value	0.77	0.79	0.40