

Supplementary Table 1. CT scanning parameters for the patients.

Scanner	TV (kV)	TC (mA)	RT (s)	CW (mm)	FOV (mm)	Matrix	ST (mm)
GE Lightspeed VCT	120	250	0.500	64×0.625	500×500	1024×1024	5
Siemens Definition AS	120	200	0.500	64×0.625	350×350	512×512	5

Abbreviations: TV, tube voltage; TC, tube current; RT, rotation time; CW, collimation width; FOV, field of view; ST, slice thickness;

Supplementary Table 2. Radiomic features selected for Rad-score(liver).

ROI	Selected radiomic features	Class	Filter	Coefficient
Liver	Sphericity	shape	original	0.3770562
Liver	Median	first order	Wavelet (HLH)	0.1013666
Liver	Cluster Shade	GLCM	Wavelet (HLH)	-0.2764881
Liver	Median	first order	Wavelet (LHL)	-0.7566080
Liver	Median	first order	Wavelet (HLL)	-0.2397555
Liver	Median	first order	Wavelet (HHL)	0.1316022

Abbreviations: ROI, regions of interest; GLCM, gray level co-occurrence matrix;

Rad-score(liver)= -1.7471505
+0.3770562×original_shape_Sphericity
+0.1013666×wavelet.HLH_firstorder_Median
-0.2764881×wavelet.HLH_glcm_ClusterShade
-0.7566080×wavelet.LHL_firstorder_Median
-0.2397555×wavelet.HLL_firstorder_Median
+0.1316022×wavelet.HHL_firstorder_Median

Supplementary Table 3. Radiomic features selected for Rad-score(spleen).

ROI	Selected radiomic features	Class	Filter	Coefficient
Spleen	Imc2	GLCM	original	0.93135991
Spleen	Dependence Variance	GLDM	log.sigma.1.0.mm.3D	1.11918737
Spleen	Mean	first order	Wavelet (LHH)	0.23551681
Spleen	Gray Level Non Uniformity	GLSZM	Wavelet (HLH)	-0.53527944
Spleen	Zone Percentage	GLSZM	Wavelet (HHH)	-0.87297410
Spleen	Mean Absolute Deviation	first order	Wavelet (LLL)	0.09595484

Abbreviations: ROI, regions of interest; 3D, three-dimensional; GLCM, gray level co-occurrence matrix; GLDM, gray level dependence matrix; GLSZM, gray level size zone matrix.

$$\begin{aligned} \text{Rad-score(spleen)} = & -1.38344279 \\ & +0.93135991 \times \text{original_glcm_Imc2} \\ & +1.11918737 \times \text{log.sigma.1.0.mm.3D_gldm_DependenceVariance} \\ & +0.23551681 \times \text{wavelet.LHH_firstorder_Mean} \\ & -0.53527944 \times \text{wavelet.HLH_glszm_GrayLevelNonUniformity} \\ & -0.87297410 \times \text{wavelet.HHH_glszm_ZonePercentage} \\ & +0.09595484 \times \text{wavelet.LLL_firstorder_MeanAbsoluteDeviation} \end{aligned}$$

Supplementary Table 4. Radiomic features selected for Rad-score (esophagus).

ROI	Selected radiomic features	Class	Filter	Coefficient
Esophagus	Sphericity	shape	original	0.02198312
Esophagus	Surface Volume Ratio	shape	original	-0.74533307
Esophagus	Run Entropy	GLRLM	original	1.26334802
Esophagus	Joint Energy	GLCM	original	-0.80898147
Esophagus	Dependence Non Uniformity Normalized	GLDM	Wavelet (HHH)	0.77693207
Esophagus	Small Dependence Low Gray Level Emphasis	GLDM	log.sigma.1.5.mm.3D	-0.02786961
Esophagus	Kurtosis	first order	log.sigma.2.5.mm.3D	0.44975707
Esophagus	Run Entropy	GLRLM	Wavelet (LLH)	1.85979757
Esophagus	Run Variance	GLRLM	Wavelet (LLH)	0.62731499

Abbreviations: ROI, regions of interest; 3D, three-dimensional; GLCM, gray level co-occurrence matrix; GLDM, gray level dependence matrix; GLRLM, gray level run length matrix.

Rad-score(esophagus)=-3.72476967
+0.02198312×original_shape_Sphericity
-0.74533307×original_shape_SurfaceVolumeRatio
+1.26334802×original_glrlm_RunEntropy
-0.80898147×original_glcm_JointEnergy
+0.77693207×wavelet.HHH_gldm_DependenceNonUniformityNormalized
-0.02786961×log.sigma.1.5.mm.3D_gldm_SmallDependenceLowGrayLevelEmphasis
+0.44975707×log.sigma.2.5.mm.3D_firstorder_Kurtosis
+1.85979757×wavelet.LLH_glrlm_RunEntropy
+0.62731499×wavelet.LLH_glrlm_RunVariance

**Supplementary Table 5. Radiomic features selected for
Rad-score (liver+ spleen+ esophagus)**

ROI	Selected radiomic features	Class	Filter	Coefficient
Liver	Median	first order	Wavelet (HLH)	0.166552178
Liver	Median	first order	Wavelet (LHL)	-0.205030730
Liver	Median	first order	Wavelet (HLL)	-0.007866705
Liver	Median	first order	Wavelet (HHL)	0.080067124
Spleen	Imc2	GLCM	original	0.098669906
Spleen	Dependence Variance	GLDM	log.sigma.1.0.mm.3D	2.584075881
Spleen	Gray Level Non Uniformity	GLSZM	Wavelet (HLH)	-0.039032946
Spleen	Zone Percentage	GLSZM	Wavelet (HHH)	-0.284824492
Esophagus	Surface Volume Ratio	shape	original	-1.125673435
Esophagus	Run Entropy	GLRLM	original	0.182294244
Esophagus	Joint Energy	GLCM	original	-0.560205359
Esophagus	Dependence Non Uniformity Normalized	GLDM	Wavelet (HHH)	0.095886573
Esophagus	Kurtosis	first order	log.sigma.2.5.mm.3D	0.289172776
Esophagus	Run Entropy	GLRLM	Wavelet (LLH)	2.101005974
Esophagus	Run Variance	GLRLM	Wavelet (LLH)	0.404664753

Abbreviations: ROI, regions of interest; 3D, three-dimensional; GLCM, gray level co-occurrence matrix; GLDM, gray level dependence matrix; GLSZM, gray level size zone matrix; GLRLM, gray level run length matrix.

$$\begin{aligned}
 \text{Rad-score (liver +spleen + esophagus)} &= -4.444476006 \\
 &+0.166552178 \times \text{wavelet.HLH_firstorder_Median(liver)} \\
 &-0.205030730 \times \text{wavelet.LHL_firstorder_Median(liver)} \\
 &-0.007866705 \times \text{Liver_wavelet.HLL_firstorder_Median(liver)} \\
 &+0.080067124 \times \text{wavelet.HHL_firstorder_Median(liver)} \\
 &+0.098669906 \times \text{original_glcm_Imc2(spleen)} \\
 &+2.584075881 \times \text{log.sigma.1.0.mm.3D_gldm_DependenceVariance(spleen)} \\
 &-0.039032946 \times \text{wavelet.HLH_glszm_GrayLevelNonUniformity(spleen)} \\
 &-0.284824492 \times \text{wavelet.HHH_glszm_ZonePercentage(spleen)} \\
 &-1.125673435 \times \text{original_shape_SurfaceVolumeRatio(esophagus)} \\
 &+0.182294244 \times \text{original_glrlm_RunEntropy(esophagus)} \\
 &-0.560205359 \times \text{original_glcm_JointEnergy(esophagus)} \\
 &+0.095886573 \times \text{wavelet.HHH_gldm_DependenceNonUniformityNormalized(esophagus)} \\
 &+0.289172776 \times \text{log.sigma.2.5.mm.3D_firstorder_Kurtosis(esophagus)} \\
 &+2.101005974 \times \text{wavelet.LLH_glrlm_RunEntropy(esophagus)} \\
 &+0.404664753 \times \text{wavelet.LLH_glrlm_RunVariance(esophagus)}
 \end{aligned}$$