

Supplemental Tables for:
Radiation versus Immune Checkpoint Inhibitor Associated Pneumonitis: Distinct Radiologic Morphologies
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Supplementary Table 1. CT Scan Parameters (Median [Range])

	Median [Range]
CT Manufacturer	GE, Philips, Siemens, Toshiba
Tube Voltage (kVp)	120 [100-140]
Tube Current (mA)	435 [78-1570]
Pixel Size (mm)	0.6777 [0.5030-1.5234]
Slice Thickness (mm)	3 [1-5]

Supplementary Table 2. Radiomic Features Extracted from Each CT Set

First Order	10th Percentile
	90th Percentile
	Energy
	Entropy
	Interquartile Range
	Kurtosis
	Maximum
	Mean Absolute Deviation
	Mean
	Median
	Minimum
	Range
	Robust Mean Absolute Deviation
	Root Mean Squared
	Skewness
	Total Energy
	Uniformity
Variance	
Gray Level Co-occurrence Matrix (GLCM)	Autocorrelation
	Cluster Prominence
	Cluster Shade
	Cluster Tendency
	Contrast
	Correlation
	Difference Average
	Difference Entropy
	Difference Variance
	Inverse Difference
	Inverse Difference Moment
	Inverse Difference Moment Normalized
	Inverse Difference Normalized
	Informational Measure of Correlation 1
	Informational Measure of Correlation 2
	Inverse Variance
	Joint Average
	Joint Energy
	Joint Entropy
	Maximal Correlation Coefficient
Maximum Probability	
Sum Average	

	Sum Entropy
	Sum Squares
Gray Level Dependence Matrix (GLDM)	Dependence Entropy
	Dependence Non-Uniformity
	Dependence Non-Uniformity Normalized
	Dependence Variance
	Gray Level Non-Uniformity
	Gray Level Variance
	High Gray Level Emphasis
	Large Dependence Emphasis
	Large Dependence High Gray Level Emphasis
	Large Dependence Low Gray Level Emphasis
	Low Gray Level Emphasis
	Small Dependence Emphasis
	Small Dependence High Gray Level Emphasis
	Small Dependence Low Gray Level Emphasis
Gray Level Run Length Matrix (GLRLM)	Gray Level Non-Uniformity
	Gray Level Non-Uniformity Normalized
	Gray Level Variance
	High Gray Level Run Emphasis
	Long Run Emphasis
	Long Run High Gray Level Emphasis
	Long Run Low Gray Level Emphasis
	Low Gray Level Run Emphasis
	Run Entropy
	Run Length Non-Uniformity
	Run Length Non-Uniformity Normalized
	Run Percentage
	Run Variance
	Short Run Emphasis
	Short Run High Gray Level Emphasis
	Short Run Low Gray Level Emphasis
Gray Level Size Zone Matrix (GLSZM)	Gray Level Non-Uniformity
	Gray Level Non-Uniformity Normalized
	Gray Level Variance
	High Gray Level Zone Emphasis
	Large Area Emphasis
	Large Area High Gray Level Emphasis
	Large Area Low Gray Level Emphasis
	Low Gray Level Zone Emphasis
	Size Zone Non-Uniformity

	Size Zone Non-Uniformity Normalized
	Small Area Emphasis
	Small Area High Gray Level Emphasis
	Small Area Low Gray Level Emphasis
	Zone Entropy
	Zone Percentage
	Zone Variance
Neighboring Gray Tone Difference Matrix (NGTDM)	Busyness
	Coarseness
	Complexity
	Contrast
	Strength

Supplementary Table 3. Select Radiomic Features of RT vs ICI-Pneumonitis (Mean ± Standard Deviation)

	RT Alone	ICI Alone	P value ^a (RT vs ICI)	RT+ICI	P value ^a (RT+ICI vs RT Alone)	P value ^a (RT+ICI vs ICI Alone)
N	29	23		30		
CL Post NGTDM Contrast	0.07 ± 0.04	0.10 ± 0.06	0.03	0.07 ± 0.04	0.79	0.05
CL Post NGTDM Strength	0.08 ± 0.05	0.05 ± 0.03	0.04	0.05 ± 0.02	0.03	0.98
IL Delta FO Kurtosis	-8.1 ± 5.8	-2.9 ± 3.7	<0.001	-5.3 ± 16.3	0.39	0.48
IL Delta FO Total Energy	-4.8E11 ± 4.3E11	-1.3E11 ± 3.3E11	0.002	-2.5E11 ± 4.6E11	0.05	0.28
IL Delta GLCM Cluster Shade	4.5E3 ± 7.3E3	-2.0E3 ± 8.5E3	0.004	6.6E3 ± 8.3E3	0.32	0.001
IL Delta GLDM Dependence Variance	-3.0 ± 6.7	0.6 ± 5.0	0.04	-0.2 ± 6.4	0.10	0.62
IL Delta GLDM Large Dependence Low Gray Level Emphasis	-0.6 ± 1.8	0.4 ± 1.4	0.04	0.7 ± 1.8	0.006	0.42

^a P values from two-sided T tests

Abbreviations: CL, contralateral lung (relative to the primary tumor); Delta, delta radiomic features; FO, First Order features; GLCM, Gray Level Co-occurrence Matrix; GLDM, Gray Level Dependence Matrix; IL, ipsilateral lung (relative to the primary tumor); NGTDM, Neighboring Gray Tone Difference Matrix; Post, post-treatment.

