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**Supplementary Table S1:** Results of Shapiro-Wilk Normality Test of DCE-MRI Parameters

	Shapiro-Wilk Test	Test Statistic	p-value	Normality
Median of K <sup>trans</sup>	0,802	0,000	0	
IQR of K <sup>trans</sup>	0,858	0,000	0	
P10 of K <sup>trans</sup>	0,825	0,000	0	
P25 of K <sup>trans</sup>	0,804	0,000	0	
P75 of K <sup>trans</sup>	0,899	0,002	0	
P90 of K <sup>trans</sup>	0,910	0,004	0	
Skewness of K <sup>trans</sup>	0,925	0,013	0	
Kurtosis of K <sup>trans</sup>	0,665	0,000	0	
Mean of K <sup>trans</sup>	0,913	0,005	0	
<b>Std of K<sup>trans</sup></b>	0,954	0,114	<b>1</b>	
Energy of K <sup>trans</sup>	0,865	0,000	0	
Entropy of K <sup>trans</sup>	0,929	0,017	0	
Median of K <sub>ep</sub>	0,879	0,001	0	
IQR of K <sub>ep</sub>	0,898	0,002	0	
P10 of K <sub>ep</sub>	0,867	0,000	0	
P25 of K <sub>ep</sub>	0,874	0,000	0	
P75 of K <sub>ep</sub>	0,927	0,015	0	
P90 of K <sub>ep</sub>	0,864	0,000	0	
Skewness of K <sub>ep</sub>	0,896	0,002	0	
Kurtosis of K <sub>ep</sub>	0,689	0,000	0	
Mean of K <sub>ep</sub>	0,790	0,000	0	
Std of K <sub>ep</sub>	0,780	0,000	0	
Energy of K <sub>ep</sub>	0,928	0,016	0	
<b>Entropy of K<sub>ep</sub></b>	0,985	0,874	<b>1</b>	
Median of v <sub>e</sub>	0,935	0,026	0	
<b>IQR of v<sub>e</sub></b>	0,968	0,327	<b>1</b>	
<b>P10 of v<sub>e</sub></b>	0,948	0,069	<b>1</b>	
P25 of v <sub>e</sub>	0,901	0,002	0	
P75 of v <sub>e</sub>	0,850	0,000	0	
P90 of v <sub>e</sub>	0,552	0,000	0	
Skewness of v <sub>e</sub>	0,932	0,021	0	
Kurtosis of v <sub>e</sub>	0,607	0,000	0	
<b>Mean of v<sub>e</sub></b>	0,964	0,244	<b>1</b>	
<b>Std of v<sub>e</sub></b>	0,969	0,340	<b>1</b>	
Energy of v <sub>e</sub>	0,601	0,000	0	
Entropy of v <sub>e</sub>	0,763	0,000	0	

Abbreviations: Std, standard deviation; IQR, Inter-quartile range. Variables normally distributed are in **bold**.

**Supplementary Table S2:** Results of Shapiro-Wilk Normality Test of DKI-derived Parameters

	Shapiro-Wilk Test	Test Statistic	p-value	Normality
Median of D	0,932	0,026	0	
IQR of D	0,933	0,028	0	
<b>P10 of D</b>	<b>0,944</b>	0,063	<b>1</b>	
P25 of D	0,900	0,003	0	
<b>P75 of D</b>	<b>0,962</b>	0,242	<b>1</b>	
<b>P90 of D</b>	<b>0,947</b>	0,079	<b>1</b>	
<b>Skewness of D</b>	<b>0,980</b>	0,719	<b>1</b>	
Kurtosis of D	0,893	0,002	0	
<b>Mean of D</b>	<b>0,944</b>	0,060	<b>1</b>	
<b>Std of D</b>	<b>0,943</b>	0,057	<b>1</b>	
Energy of D	0,791	0,000	0	
Entropy of D	0,891	0,002	0	
<b>Median of K</b>	<b>0,988</b>	0,953	<b>1</b>	
<b>IQR of K</b>	<b>0,963</b>	0,246	<b>1</b>	
P10 of K	0,898	0,003	0	
<b>P25 of K</b>	<b>0,983</b>	0,845	<b>1</b>	
<b>P75 of K</b>	<b>0,956</b>	0,147	<b>1</b>	
<b>P90 of K</b>	<b>0,950</b>	0,097	<b>1</b>	
Skewness of K	0,874	0,001	0	
Kurtosis of K	0,606	0,000	0	
<b>Mean of K</b>	<b>0,970</b>	0,397	<b>1</b>	
<b>Std of K</b>	<b>0,966</b>	0,317	<b>1</b>	
Energy of K	0,860	0,000	0	
Entropy of K	0,933	0,029	0	

Abbreviations: Std, standard deviation; IQR, Inter-quartile range. Variables normally distributed are in **bold**.

**Supplementary Table S3:** Results of Shapiro-Wilk Normality Test from numerical pathological parameters

Shapiro-Wilk Test	Test Statistic	p-value	Normality
TSR	0,939	0,042	0
TILs	0,841	0,000	0

Abbreviations: TSR, Tumor stroma ratio; TIL, tumor-infiltrating lymphocytes.

**Supplementary Table S4:** *p*-values derived from the Kruskal-Wallis test to assess the effect of the pathological factors on DCE-MRI and DKI parameters (only statistically significant results are reported)

	Kurtosis of K <sub>ep</sub>	Skewness of K <sub>ep</sub>	Kurtosis of K <sub>trans</sub>	Skewness of K <sub>trans</sub>	Kurtosis of K <sub>ep</sub>	Skewness of K <sub>ep</sub>
Perineural infiltration	0,044					
CD3/20 pronounce-	0,048					
CD4/8 pronounce-	0,019					
Keratinization	0,018	0,029				
Inflammatory infiltrate	0,042	0,033	0,047	0,013		
IQR of K <sub>ep</sub>	IQR of P75 of K <sub>ep</sub>	P90 of K <sub>ep</sub>	Energy D of D	Entropy D of D		
Grading	0,024	0,035	0,041	0,034	0,023	0,027
	P25 of K <sub>trans</sub>	Median of K <sub>trans</sub>	P10 of K <sub>ep</sub>	P25 of K <sub>ep</sub>	P90 of K <sub>ep</sub>	Mean of K <sub>ep</sub>
Desmoplastic reaction	0,031	0,018	0,011	0,026	0,035	0,017
	P10 of v <sub>e</sub>	K <sub>ep</sub>	K <sub>ep</sub>	K <sub>ep</sub>	K <sub>ep</sub>	P25 of v <sub>e</sub>
						P10 of v <sub>e</sub>
						Std of v <sub>e</sub>
						Std of v <sub>e</sub>
						Skewness of K <sub>ep</sub>
						Kurtosis of K <sub>ep</sub>