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PDFF   15 (1-36) %

DWI Parameter	CMA	P	BLN	P
$D \ [10^{-3}mm^2/s]$	1.2 (0.88-1.6)	<0.001	0.89 (0.58-1.1)	<0.001
$F \ [\%]$	18 (5 - 34)	<0.001	19 (2.3-35)	<0.001

Table S1 – Distribution of PDFF and of IVIM parameters after fat fraction adjustment. Mean and range of each parameter is given. P-value corresponds to paired student's t-test between fat fraction-adjusted parameter versus unadjusted parameter.
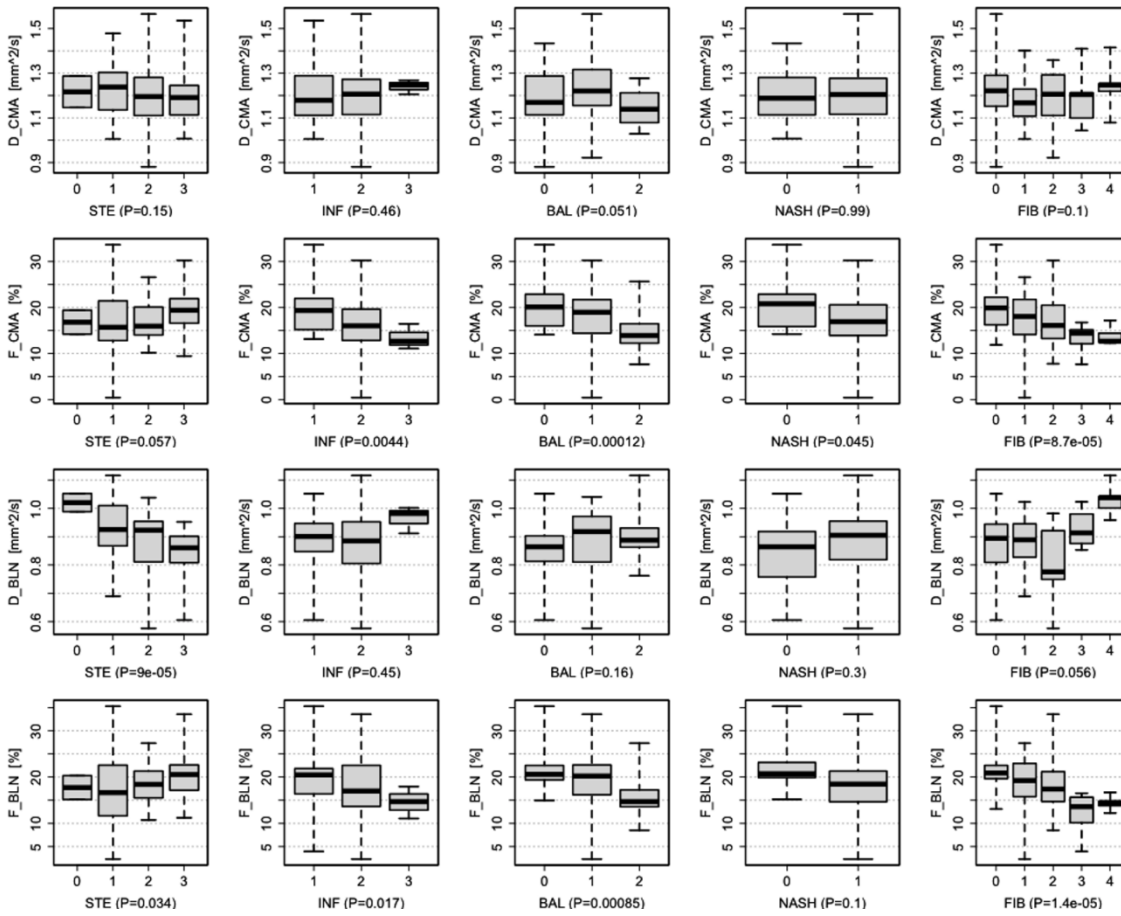
Figure S1 – Trend tests after fat fraction adjustment. Trends in IVIM parameters (D middle, F bottom) after fat fraction adjustment for each histologic feature (STE: steatosis, INF: inflammation, BAL: ballooning, NASH score, and FIB: fibrosis) are shown above. The barplot indicates the minimum, 1st, 2nd, 3rd quartiles, and maximum value of each DWI parameter for each observed score of histologic feature. Each plot is annotated with the p-value of the Jonckheere-Terpstra test for trends or the p-value of the Wilcoxon signed rank test for NASH. Parameters derived from the LS (top) and BLN (bottom) reconstruction methods are shown.

| Regression | | FF Adjusted CMA Reconstruction DWI -Derived Parameter | |
Model	Coefficient	D	F
1	Intercept	1.285 ± 0.064	21.209 ± 2.397
	STE	-0.015 ± 0.017, P=0.393	**1.476 ± 0.659, P=0.028 ***
	INF	0.015 ± 0.030, P=0.615	-1.342 ± 1.138, P=0.241
	BAL	-0.023 ± 0.030, P=0.442	-2.245 ± 1.145, P=0.053
	FIB	-0.005 ± 0.016, P=0.750	-0.562 ± 0.590, P=0.344
2	Intercept	1.233 ± 0.088	22.818 ± 3.386
	STE	-0.020 ± 0.017, P=0.244	1.150 ± 0.649, P=0.080
	NASH	0.029 ± 0.048, P=0.541	-3.094 ± 1.833, P=0.095
	FIB	-0.012 ± 0.012, P=0.336	**-1.327 ± 0.472, P=0.006 ****

| Regression | | FF Adjusted BLN Reconstruction DWI -Derived Parameter | |
Model	Coefficient	D	F
1	Intercept	0.952 ± 0.046	21.026 ± 2.604
	STE	**-0.046 ± 0.013, P=0.0004 *****	1.406 ± 0.715, P=0.053 .
	INF	-0.006 ± 0.022, P=0.770	-0.659 ± 1.236, P=0.595
	BAL	0.030 ± 0.022, P=0.178	-1.252 ± 1.244, P=0.317
	FIB	0.009 ± 0.011, P=0.410	**-1.410 ± 0.641, P=0.031 ***
2	Intercept	0.894 ± 0.063	22.938 ± 3.599
	STE	**-0.047 ± 0.012, P=0.0001 *****	1.305 ± 0.690, P=0.062 .
	NASH	0.057 ± 0.034, P=0.101	-2.407 ± 1.948, P=0.220
	FIB	0.012 ± 0.009, P=0.160	**-1.753 ± 0.502, P= 0.0007 *****

Table S2 – Multiple Linear Regression Tables after Fat Fraction Adjustment. The coefficient ± standard error and significance of the effects of each histologic feature of NAFLD are reported above for both reconstruction methods and both model after fat fraction adjustment. The p-value range is specified by the number of adjacent asterisks, as follows: *** = 0-0.001, ** = 0.001-0.010, * = 0.010-0.050.