Supplementary Table 1. Correlation of age with ADC and T2* (T2 star) parameters at different disc levels in normal (grade I) discs

	ROI		Correlation coefficient (r)	P-value
L3-L4	ADC	Central	0.1	0.61
		Peripheral	0.15	0.44
		Entire disc	0.12	0.54
	T2*	Central	0.18	0.36
		Peripheral	0.19	0.33
		Entire disc	0.19	0.33
L4-L5	ADC	Central	0.39	0.1
		Peripheral	−0.14	0.57
		Entire disc	0.09	0.71
	T2*	Central	0.16	0.53
		Peripheral	−0.06	0.81
		Entire disc	−0.06	0.81
L5-S1	ADC	Central	0.16	0.45
		Peripheral	0.11	0.61
		Entire disc	0.15	0.5
	T2*	Central	−0.11	0.62
		Peripheral	−0.06	0.78
		Entire disc	−0.1	0.67

r – Pearson correlation coefficient, p-value* – statistically significant at $p \leq 0.05$.

Supplementary Table 2. Correlation of age with ADC, T2* (T2 Star) parameters at different disc levels in degenerated discs (abnormal grades)

Level	ADC – central	ADC – peripheral	T2* – central	T2* – peripheral
L3-L4	rho = −0.66 $p < 0.01*$	rho = −0.66 $p < 0.01*$	rho = −0.62 $p < 0.01*$	rho = −0.61 $p < 0.01*$
L4-L5	rho = −0.7 $p < 0.01*$	rho = −0.67 $p < 0.01*$	rho = −0.64 $p < 0.01*$	rho = −0.66 $p < 0.01*$
L5-S1	rho = −0.34 $p < 0.01*$	rho = −0.35 $p < 0.01*$	rho = −0.38 $p < 0.01*$	rho = −0.40 $p < 0.01*$

Spearman's coefficient of rank correlation (rho), p-value* – statistically significant at $p \leq 0.05$.

Supplementary Table 3. Mean ADC values ($\times 10^{-6}$ mm^2/s) of combined ROIs (NP and AF) across different Modified Pfirrmann grades at all 3 lumbar disc levels

Levels	L3-L4 disc level		L4-L5 disc level		L5-S1 disc level	
ROI-ADC	NP – combined Mean ± SD	AF – combined Mean ± SD	NP – combined Mean ± SD	AF – combined Mean ± SD	NP – combined Mean ± SD	AF – combined Mean ± SD
Grade I	2891.1 ± 55.4	2854.3 ± 51.7	2806.3 ± 60.9	2771.1 ± 132.4	2795.7 ± 78.3	2759.3 = 73.9
Grade II	2699.1 ± 52.1	2707.4 ± 61.2	2695.5 ± 65.8	2723.9 ± 66.4	2562.3 ± 68.6	2605.1 ± 65.6
Grade III	2417.4 ± 59.0	2438.2 ± 62.3	2386.1 ± 56.9	2424.5 ± 57.9	2324.0 ± 41.1	2403.7 ± 37.6
Grade IV	2209.4 ± 78.6	2222.8 ± 67.6	2062.5 ± 124.4	2098.2 ± 126.5	2060.9 ± 36.3	2141.7 ± 29.9
Grade V	1817.3 ± 131.2	1862.1 ± 121.7	1851.5 ± 97.7	1893.2 ± 97.8	1801.0 ± 19.9	1857.0 ± 27.6
Grade VI	1273.9 ± 134.4	1309.1 ± 140.7	1112.3 ± 186.9	1242.1 ± 281.4	1017.5 ± 84.4	1264.8 ± 80.8
Grade VII	698.3	699.5	556.2 ± 66.8	644.9 ± 55.7	578.3 ± 42.0	654.9 ± 22.7
Grade VIII	394.7	432.5	109.1 ± 153.7	143.7 ± 202.5	231.7	380.0
P-value*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

P-value* – statistically significant at $p \leq 0.05$

Supplementary Table 4. Mean T2*(T2 Star) values (ms) of combined ROIs (NP and AF) across different modified Pfirrmann grades at all 3 lumbar disc levels

Levels	L3-L4 disc level		L4-L5 disc level		L5-S1 disc level	
ROI-T2*	NP – combined Mean ± SD	AF – combined Mean ± SD	NP – combined Mean ± SD	AF – combined Mean ± SD	NP – combined Mean ± SD	AF – combined Mean ± SD
Grade I	197.7 ± 20.6	180.7 ± 22.2	183.3 ± 18.0	173.5 ± 22.6	181 ± 11.4	169.8 ± 12.5
Grade II	156.6 ± 11.2	163.9 ± 12.5	156.2 ± 11.1	167.2 ± 11.3	135.0 ± 9.4	144.4 ± 5.6
Grade III	118.6 ± 7.8	123.5 ± 6.8	125.8 ± 9.6	135.1 ± 7.0	102.3 ± 10.0	115.9 ± 7.8
Grade IV	91.5 ± 8.3	97.9 ± 8.1	85.0 ± 11.1	94.9 ± 12.1	74.3 ± 6.6	85.4 ± 9.3
Grade V	61.5 ± 9.2	73.6 ± 7.4	56.0 ± 6.6	65.2 ± 8.1	61.3 ± 4.2	75.5 ± 2.6
Grade VI	36.8 ± 6.4	42.4 ± 8.9	32.4 ± 10.0	31.2 ± 10.7	35.1 ± 2.9	42.0 ± 3.3
Grade VII	28.1	27.8	21.2 ± 1.5	33.7 ± 9.9	23.6 ± 4.6	33.3 ± 4.2
Grade VIII	19.7	31.8	12.4 ± 1.1	14.7 ± 4.5	16.8	30.1
P-value*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

P-value* – statistically significant at $p \leq 0.05$.