

# **Investigation of perfusion impairment in degenerative cervical myelopathy beyond the site of cord compression**

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**Supplementary Table S1: Spinal cord tissue-specific IVIM parameters**

(A)

	$D^*$ [ $\text{mm}^2/\text{s}$ ] $\times 10^{-3}$		$F \cdot D^*$ [ $\text{mm}^2/\text{s}$ ] $\times 10^{-4}$		$F$ [%]		$D$ [ $\text{mm}^2/\text{s}$ ] $\times 10^{-4}$	
	<i>WM</i>	<i>GM</i>	<i>WM</i>	<i>GM</i>	<i>WM</i>	<i>GM</i>	<i>WM</i>	<i>GM</i>
<b>HC</b>	20.1 ± 3.9	14.3 ± 3.1	8.0 ± 2.5	7.5 ± 1.6	6.4 ± 1.5	10.4 ± 1.7	4.0 ± 0.6	4.3 ± 0.6
<b>DCM</b>	18.7 ± 3.9	12.7 ± 2.9	6.7 ± 2.7	6.4 ± 1.9	6.3 ± 1.6	10.3 ± 2.1	4.1 ± 0.6	4.4 ± 0.6
<b>Difference</b>	-9.5%	-11.0%	-15.9%	-14.4%	-0.3%	-1.5%	3.2%	1.6%
<b><i>p</i> value</b>	0.03	0.03	0.04	0.02	0.5	0.4	0.8	0.7

(B)

	$D^*$ [ $\text{mm}^2/\text{s}$ ] $\times 10^{-3}$				
	<i>VH</i>	<i>DH</i>	<i>VF</i>	<i>LF</i>	<i>DC</i>
<b>HC</b>	16.7 ± 3.6	17.5 ± 4.1	19.9 ± 5.5	22.1 ± 3.7	19.0 ± 4.4
<b>DCM</b>	13.4 ± 3.8	17.0 ± 5.3	16.3 ± 5.8	20.2 ± 3.6	17.5 ± 4.6
<b>Difference</b>	-20.1%	-2.7%	-18.2%	-8.5%	-7.7%
<b><i>p</i> value</b>	0.0009	0.4	0.01	0.03	0.1

	$F \cdot D^*$ [ $\text{mm}^2/\text{s}$ ] $\times 10^{-4}$				
	<i>VH</i>	<i>DH</i>	<i>VF</i>	<i>LF</i>	<i>DC</i>
<b>HC</b>	9.4 ± 3.3	6.4 ± 2.3	13.4 ± 6.5	8.2 ± 2.5	6.2 ± 1.8
<b>DCM</b>	6.8 ± 2.6	6.0 ± 2.5	10.5 ± 5.4	6.9 ± 2.8	5.5 ± 2.3
<b>Difference</b>	-28.2%	-7.1%	-21.5%	-16.5%	-10.6%
<b><i>p</i> value</b>	0.0008	0.2	0.04	0.03	0.1

(A) IVIM parameters (blood velocity index ( $D^*$ ), blood flow index ( $F \cdot D^*$ ), microvasculature volume fraction ( $F$ ), and diffusion coefficient ( $D$ )) in healthy controls (HC) and DCM patients, averaged across participants within the groups in the white matter (WM) and grey matter (GM).

(B) Tissue-specific blood velocity ( $D^*$ ) and blood flow ( $F \cdot D^*$ ) indices in healthy controls (HC) and DCM patients, averaged across participants within group in the ventral horns (VH), dorsal horns (DH) of the grey matter and in the ventral funiculi (VF), lateral funiculi (LF) and dorsal columns (DC) of the white matter. Differences in percentage between mean values in DCM patients compared to healthy controls, along with the corresponding p-value, are also reported.