

Increased retinal oxygen metabolism precedes microvascular alterations in Type 1 diabetic mice

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Supplemental Table 1 Significant test in parameters between diabetic retinopathy (DR) models and control mice

Parameters	Time points	5 th week	7 th week	9 th week	11 th week	13 th week
	Velocity		0.128	0.259	0.710	0.317
Vessel diameter		0.128	0.128	0.165	0.620	1.000
Arterial sO₂		0.090	0.687	0.645	0.175	0.324
Venous sO₂		0.732	0.307	0.006*	0.006*	0.006*
Flow		0.805	0.711	0.260	0.559	0.594
Artery-vein sO₂ difference		0.100	0.090	0.006*	0.006*	0.006*
Inner retinal oxygen metabolic rate		0.165	0.80	0.091	0.001*	0.001*

*indicates significant difference between DR models and control mice.

For each parameter, we tested the significant difference between DR models and control mice at each imaging time point from 5th week to 13th week. In current study, we totally involved seven DR mice models and seven control mice for longitudinal investigation, and applied Wilcoxon Rank-Sum Test¹ for significant test. There were no significant difference in velocity, vessel diameter, arterial sO₂, flow between DR models and control mice. However, significant difference was observed in venous sO₂, artery-vein sO₂ difference from the 9th week between DR models and control mice. Also, the inner retinal oxygen metabolic rate of DR models was significant higher than that of control mice from 11th week. All the *p* values were listed in **Supplemental Table 1**.

References:

1. Bellera, C.A., Julien, M. & Hanley, J.A. Normal approximations to the distributions of the Wilcoxon statistics: accurate to what n? Graphical insights. *Journal of Statistics Education* **18**, 1-17 (2010).