

1 **Supplementary material**

2 Table S1: Repeatability of successive measurements (repeat and original) for nasal-annular  
 3 arteriole-venule ratio (NA-AVR) in: all eyes (All), left eyes (L) and right eyes (R). The arteriolar  
 4 and venular components ( $\mu\text{m}$ ) of NA-AVR are also shown. With Pearson's linear correlation  
 5 coefficient ( $R^2$ ), the 95% confidence interval (C) and 5% significance level (p). Significant p-  
 6 values in **bold**.

Measure	Eye(s)	Pearson's linear correlation			Paired t-test			N
		$R^2$	CI	p	Difference	CI	p	
NA-AVR (unity)	All	0.82	0.74, 0.88	<0.005	-0.01	-0.02, 0.01	0.360	91
	L	0.77	0.61, 0.87	<0.005	-0.01	-0.03, 0.01	0.502	45
	R	0.86	0.76, 0.92	<0.005	-0.01	-0.02, 0.01	0.541	46
arterioles ( $\mu\text{m}$ )	All	0.91	0.87, 0.94	<0.005	0.0	-1.5, 1.5	0.107	91
	L	0.91	0.83, 0.95	<0.005	1.0	-0.3, 2.3	0.141	45
	R	0.92	0.86, 0.96	<0.005	0.4	-0.7, 1.5	0.455	46
venules ( $\mu\text{m}$ )	All	0.91	0.87, 0.94	<0.005	1.3	0.4, 2.2	<b>&lt;0.005</b>	91
	L	0.94	0.89, 0.97	<0.005	1.9	0.6, 3.2	<b>0.006</b>	45
	R	0.88	0.79, 0.93	<0.005	1.0	-0.4, 2.3	0.180	46

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1 Table S2: Area under receiver operator characteristic curve (AUC) for nasal-annular arteriole-  
 2 venule ratio (NA-AVR) as a detector of hypertensive status in the study cohort. The arteriolar  
 3 and venular components ( $\mu\text{m}$ ) used to calculate NA-AVR are also given.  $\text{AVR}_5$  uses the 5  
 4 widest arteriolar and venular segments, and  $\text{AVR}_{\text{max}}$  uses the widest arteriolar and venular  
 5 segments. With 95% confidence intervals (CI) and 5% significance level (p). Significant p-  
 6 values in **bold**.

Measure	Group	Left Eye		Right Eye		P
		AUC	CI	AUC	CI	
NA-AVR	All	0.73	0.68, 0.78	0.64	0.59, 0.70	<b>0.020</b>
	M	0.77	0.70, 0.83	0.59	0.51, 0.67	<b>&lt;0.005</b>
	F	0.72	0.63, 0.78	0.68	0.58, 0.76	0.502
arterioles ( $\mu\text{m}$ )	All	0.70	0.65, 0.75	0.66	0.60, 0.71	0.307
	M	0.71	0.63, 0.77	0.62	0.54, 0.70	0.101
	F	0.71	0.63, 0.78	0.68	0.59, 0.75	0.616
venules ( $\mu\text{m}$ )	All	0.53	0.47, 0.59	0.52	0.47, 0.58	0.808
	M	0.49	0.40, 0.57	0.52	0.43, 0.60	0.611
	F	0.57	0.47, 0.65	0.55	0.46, 0.64	0.749
$\text{AVR}_5$	All	0.69	0.64, 0.74	0.63	0.57, 0.69	0.130
	M	0.74	0.66, 0.80	0.58	0.49, 0.65	<b>&lt;0.005</b>
	F	0.66	0.58, 0.74	0.68	0.58, 0.76	0.742
$\text{AVR}_{\text{max}}$	All	0.68	0.63, 0.73	0.63	0.58, 0.69	0.209
	M	0.70	0.62, 0.77	0.61	0.53, 0.69	0.104
	F	0.67	0.58, 0.74	0.62	0.53, 0.70	0.416

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1 Figure S1: Bland-Altman plots for measurement repeatability of the arteriolar and venular  
2 components ( $\mu\text{m}$ ) of nasal-annular arteriole-venule ratio, showing the difference between  
3 successive measurements (repeat – original) on the y-axis and the average of the two  
4 measurements on the x-axis for: arterioles in (a) all eyes, (b) left eyes, (c) right eyes, and  
5 venules in (d) all eyes, (e) left eyes and (e) right eyes.

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