

Supplementary

Table S1 Shapiro-Wilk normality test results for retinal vascular parameters in healthy controls, hemorrhagic stroke, and ischemic stroke groups

| Retinal parameters | Control (SW P) | Hemorrhagic (SW P) | Ischemic (SW P) |
|--------------------------|----------------|--------------------|-----------------|
| SO ₂ arterial | 0.80 | 0.03 | 0.22 |
| SO ₂ venous | 0.36 | 0.73 | 0.17 |
| FD arterial | 0.43 | 0.75 | 0.35 |
| FD venous | 0.30 | 0.13 | 0.95 |
| Density arterial | 0.19 | 0.62 | 0.39 |
| Density venous | 0.65 | 0.79 | 0.45 |
| Tor arterial | <0.01 | 0.24 | 0.05 |
| Tor venous | <0.01 | 0.04 | 0.13 |
| BA arterial | <0.01 | 0.02 | 0.09 |
| BA venous | 0.40 | 0.06 | 0.48 |
| BC arterial | 0.45 | 0.23 | 0.47 |
| BC venous | 0.16 | 0.98 | 0.06 |
| AF arterial | 0.03 | 0.47 | <0.01 |
| AF venous | 0.02 | <0.01 | 0.16 |
| OR arterial | 0.20 | 0.74 | 0.87 |
| OR venous | 0.51 | 0.76 | 0.12 |
| CRAE | 0.54 | 0.04 | 0.02 |
| CRVE | 0.32 | 0.17 | 0.08 |

Shapiro-Wilk normality test results for retinal vascular parameters in healthy controls, hemorrhagic stroke, and ischemic stroke groups. SW P values indicate the probability of data following a normal distribution (P≥0.05 suggests normality). Normally distributed parameters (SW P≥0.05) were analyzed using Student's *t*-test; non-normal parameters (SW P<0.05) were assessed via Kolmogorov-Smirnov (K-S) test.

Table S2 Other structural features analysis

| Retinal features | Controls | Hemorrhagic stroke | Ischemic stroke |
|------------------|------------|--------------------|-------------------|
| Tortuosity | | | |
| Arterial | 10.84±4.23 | 10.00±2.14 (0.71) | 9.66±3.42 (0.84) |
| Venous | 16.65±6.43 | 18.39±5.59 (0.25) | 17.51±6.07 (0.36) |
| AF | | | |
| Arterial | 2.58±0.72 | 2.65±0.81 (0.26) | 2.74±1.09 (0.55) |
| Venous | 3.08±1.04 | 2.94±1.38 (0.59) | 3.48±1.00 (0.16) |
| CRAE | 140.7±8.0 | 135.8±9.6 (0.30) | 134.1±10.3 (0.11) |
| CRVE | 204.9±13.7 | 205.3±11.7 (0.89) | 199.5±18.5 (0.14) |

All parameters are presented as mean ± standard deviation. AF, CRAE, and CRVE represent the vessel asymmetric factor, central retinal artery equivalent, and central retinal vein equivalent, respectively. The values within parentheses for the ischemic stroke and hemorrhagic stroke groups indicate the P values from the significance tests comparing these groups to the Controls. The Tortuosity measurements have been magnified by a factor of 10⁵ to more clearly express the data. The units for CRAE and CRVE are micrometers (μm).