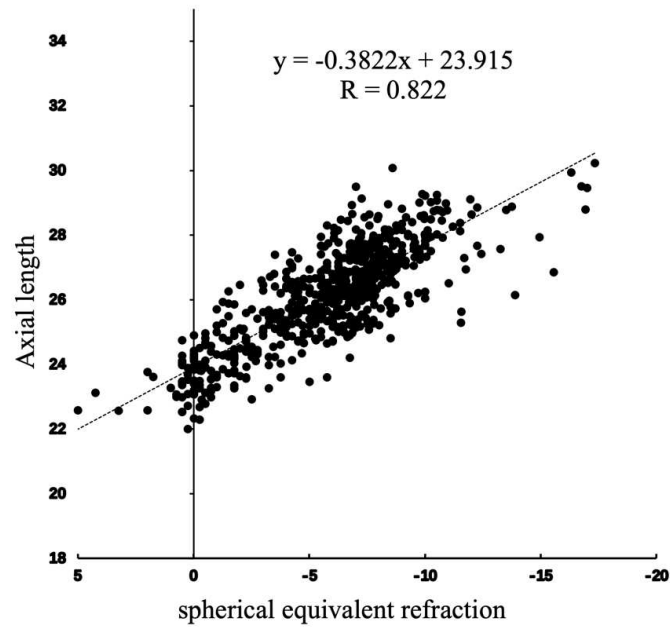


Supplemental data:

Supplemental Figure 1.



Supplemental Figure 1. Scatterplots of spherical equivalent refraction (SER) and axial length (AL) in 716 eyes with myopia. SER was negatively correlated with AL ($P = 0.000$).

Supplemental Table 1. Demographic and clinical characteristics of the participants

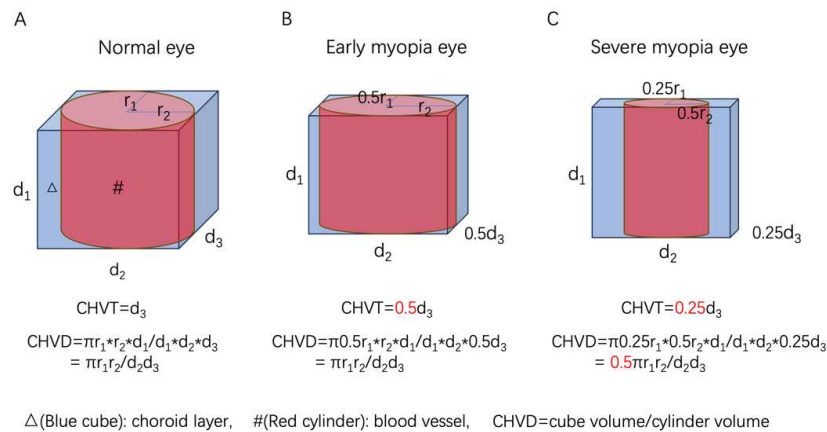
Group	Normal (66 eyes)	LM (81 eyes)	MM (177 eyes)	HM (310eyes)	SM (82 eyes)
Age, mean (SD), y	34.08±6.44	32.90±5.58 [#]	32.36±5.85 [#]	32.06±6.01 [#]	31.30±6.60 [#]
Sex (female: male)	51:15	55:26	92:85	135:175	35:47
AL	23.54±0.61	24.62±0.83*	25.89±1.00*	26.79±0.93*	28.05±1.20*
SER	+0.02±0.41	-1.85±0.71*	-4.82±0.88*	-7.31±0.77*	-11.13±2.48*

AL: axial length, SER: spherical equivalent refraction, LM: low myopia, MM: moderate myopia, HM: high myopia, SM: super-high myopia, [#] indicates $P > 0.05$, and * indicates $P < 0.05$ when compared to the normal group.

Supplemental Table 2. Correlation analysis of choroidal vascular thickness and density with axial length in different areas.

Parameter	<i>r</i> -value(<i>P</i>) ChVT	<i>r</i> -value(<i>P</i>) ChVD
Nasal-superior	-0.514 (0.000)	-0.303 (0.000)
Optic disc	-0.549 (0.000)	-0.482 (0.000)
Nasal-inferior	-0.417 (0.000)	-0.303 (0.000)
Superior	-0.540 (0.000)	-0.202 (0.000)
Macular	-0.630 (0.000)	-0.412 (0.000)
Inferior	-0.467 (0.000)	-0.231 (0.000)
Tempo-superior	-0.334 (0.000)	-0.119 (0.001)
Tempo	-0.437 (0.000)	-0.285 (0.000)
Tempo-inferior	-0.427 (0.000)	-0.333 (0.000)

Supplemental Figure 2.



Supplemental Figure 2: Myopic Choroidal Vascular Changes Hypothetical Model Diagram: **A. Normal Eye:** The blue cube (Δ) represents the choroidal layer, the red cylinder (#) represents the choroidal vessels, d_3 represents the choroidal thickness (CHVT), and CHVD is the ratio of vessel volume to choroidal volume; **B. Early Myopic Eye:** The axial length is elongated, CHVT is thinner ($0.5d_3$), and the vessels are slightly flattened (only r_1 decreases). However, the calculated CHVD remains unchanged; **C. Severe Myopic Eye:** The axial length continues to elongate, the choroidal vessels are stretched and become thinner (both r_1 and r_2 decrease), and CHVD begins to decrease.