

Supplementary Table 1. Demographic, Corneal, and Anterior Chamber Parameters in Keratoconus and Healthy Eyes

Parameter	Keratoconus (n = 50)	Healthy Eyes (n = 50)	P value
Age, y	31.4 ± 9.7	30.2 ± 7.8	.70
Astigmatism, D	-3.2 ± 1.5	-3.2 ± 0.9	.50
Corneal volume, mm ³	55.2 ± 3.7	58.6 ± 3.5	< .001
Anterior chamber depth, mm	3.3 ± 0.2	2.9 ± 0.3	< .001
Anterior chamber volume, mm ³	170.2 ± 30.7	140.2 ± 45.9	< .001
Thinnest corneal thickness, µm	447 ± 42.4	537 ± 33.3	< .001
Apical corneal thickness, µm	470.5 ± 51.5	567.3 ± 42.4	< .001
Corneal curvature, D	56.3 ± 4.9	46.7 ± 1.9	< .001
Anterior symmetry index, ASI	6.5 ± 3.3	-0.27 ± 0.6	< .001
Posterior symmetry index, PSI	1.56 ± 0.8	-0.04 ± 0.12	< .001
BCV anterior index	3.49 ± 1.6	0.16 ± 0.2	< .001
BCV posterior index	3.47 ± 1.5	0.15 ± 0.2	< .001

Values are expressed as mean ± SD, p values were calculated using the Mann-Whitney U test.

Supplementary Table 2. Higher-Order Corneal Aberrations and Their Correlation with Structural Parameters

HOA parameter	Keratoconus		Healthy Eyes	P value
Astigmatic RMS, μm	3.22 ± 1.5		3.17 ± 0.9	.50
Coma RMS, μm	2.4 ± 1.1		0.3 ± 0.1	< .001
Spherical RMS, μm	0.5 ± 0.4		0.2 ± 0.1	< .001
Total HOA RMS, μm	1.7 ± 0.3		1.4 ± 0.4	< .001
Residual RMS, μm	1.1 ± 0.7		0.3 ± 0.1	< .001
Parameter	Coma (ρ)	Spherical (ρ)	Astigmatic (ρ)	Total HOA (ρ)
ASI	0.816	0.241	0.037	0.821
PSI	0.812	0.173	0.072	0.803
BCV anterior	0.862	0.232	0.018	0.856
BCV posterior	0.851	0.233	0.065	0.850
TCT	−0.768	−0.287	−0.06	−0.734
ACT	−0.703	−0.236	−0.05	−0.645
Kmean	0.693	0.402	0.06	0.692
Parameter	Coma (ρ)	Spherical (ρ)	Astigmatic (ρ)	Total HOA (ρ)
Kmean	0.693	0.241	0.037	0.821
Corneal volume	−0.382	0.402	0.072	0.803
ACD	0.420	0.232	0.018	0.856
ACV	0.310	0.233	0.065	0.850

ρ, Spearman correlation coefficient.