

Supplementary Materials

Test-retest reliability of CID

Twenty right eyes of 20 healthy subjects (10 men and 10 women) were analyzed in the cross-sectional study. The mean age was 29.4 ± 2.6 (range: 20-56) years old. The inclusion and exclusion criteria were same as criteria in the manuscript method. To assess the intra-operator repeatability, the Corneal Indentation Device (CID) measurements were repeated two times by the observer. Paired *t*-test was used to compare the difference between two CID tests. Intraclass correlation (ICC) and Bland-Altman analysis were carried out to evaluate the test-retest reliability of CID measurement.

The comparison and reliability indices (ICC and Cronbach's α) of CID parameters are shown in Table S1. The paired *t*-test analysis revealed no significant intra-operator differences for both CID parameters ($p > 0.05$). The stiffness (ICC 0.812; Cronbach's α 0.892) and modulus (ICC 0.858; Cronbach's α 0.921) of two measurements showed excellent repeatability (ICC ≥ 0.75 ; Cronbach's $\alpha > 0.7$). According to the Bland-Altman plot (Figure S1), the narrow limits of agreement (LoA) of stiffness (-0.005 to 0.003) and modulus (-0.038 to 0.026) were observed. It showed that 100% were included in 95% limits of agreement.

In conclusion, both the stiffness and modulus showed favorable measurement reliability in healthy subjects.

Table S1. The comparison and reliability indices of CID parameters in two measurements

	Test 1	Test 2	Paired <i>t</i> -test <i>P</i> value	ICC	Cronbach's α
Stiffness (N/mm)	0.079 ± 0.013	0.080 ± 0.013	0.710	0.812*	0.892
Modulus (MPa)	0.653 ± 0.123	0.659 ± 0.129	0.705	0.858*	0.921

* Correlation is significant at the 0.05 level.