



Corneal hysteresis and corneal resistance factor in pellucid marginal degeneration

Dear Editor,

We congratulate Sedaghat et al.¹ for their study entitled 'Corneal hysteresis and corneal resistance factor in pellucid marginal degeneration'. We read the article with interest. They evaluated and compared corneal hysteresis (CH) and corneal resistance factor (CRF) in pellucid marginal degeneration (PMD), keratoconus, and healthy eyes using the Ocular Response Analyzer. Their retrospective study included 102 patients with PMD, 202 patients with keratoconus, and 208 normal subjects. They found statistically significant differences in terms of CH and CRF values between the groups. We express our gratitude to the authors regarding this study. However, we want to specify some matters and our thoughts related to this article.

As mentioned in the article, true PMD is a very rare disease. Since the similar sagittal topographic features, inferior keratoconus is generally confused with PMD. A significant number of PMD cases reported in the literature actually have corneal topographies compatible with inferior keratoconus. Many other reports purporting treatment modalities for PMD fail to show clear evidence supporting the diagnosis of PMD. These eyes do not show the classic band-like inferior thinning that is best demonstrated by a full-coverage (12 mm) corneal thickness map.^{2,3} Lee et al.⁴ reviewed 40 eyes of 26 patients exhibiting the classic claw pattern on anterior curvature from 3993 Orbscan II records. Of these, only 9 eyes of 6 patients met their criteria for true PMD. In a recent study by us,⁵ we analyzed the topographic records of 2751 patients with corneal ectasia. A crab claw pattern on corneal topography was observed in 47 eyes of 32 patients. When the medical records of these patients were examined, PMD was detected in only 11 eyes of eight patients, and inferior keratoconus was detected in 36 eyes of 24 patients. We would like to ask the authors whether their 102 PMD patients are really true PMD or PMD suspect with crab claw pattern. Further, it should be remembered that corneal topography systems usually evaluate the 9 mm central part of the cornea, and in 45% of the patients with PMD, the thinnest region of the cornea

was found to be outside of the 9 mm.⁶ Therefore, the thinnest corneal thickness values and their coordinates presented in topography systems may not reflect actual values. Accordingly, did the authors evaluate the 9 mm central zone or full pachymetric map (in the 12 mm corneal area)? Additionally, we think that it would be better to compare the CH and CRF values of PMD with inferior keratoconus cases showing crab claw pattern on corneal topography instead of keratoconus cases.

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