Lessons from abroad: Lid parallel conjunctival folds
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As an eye care practitioner in the United States, you are surely able to name at least five different dry eye tests, but I doubt that Lid Parallel Conjunctival Folds (LIPCOF) would be on your list. While we have a plethora of dry eye diagnostic techniques, few tests are able to make a diagnosis of dry eye as well as LIPCOF (75.95 percent negative predictive value/positive predictive value 93.09 percent). LIPCOF is graded by using a slit-lamp biomicroscope (16-25x magnification) or an optical coherence tomographer to examine the bulbar conjunctival folds that are parallel to the tear prism and directly below the most temporal and/or nasal aspects of the limbus (Figure 1).

There are a number of LIPCOF grading scale variations in the literature; however, Hōh et al’s original scale is the basis for all of them: below is an optimized scale commonly used today.

- Grade 0: No conjunctival folds or disrupted micro-folds in one line
- Grade 1: One permanent parallel fold or with disrupted micro-folds
- Grade 2: Two permanent parallel folds less than 0.2mm or with disrupted micro-folds above
- Grade 3: More than two permanent parallel folds greater than 0.2mm or with disrupted micro-folds above

Qualifying LIPCOFs must disappear when the examiner pulls the lower eyelid away from the eye, and they must return to their original position after a few blinks. The underlying cause for this finding is still unknown, though it has been hypothesized that the folds result from mechanical friction that is secondary to mucin deficiency. Overall, the ease of LIPCOF assessment and its promise to be able to predict which new contact lens wearers will develop dry eye makes it a particularly attractive assessment, and I expect that it will continue to gain popularity here as it has abroad.

References:

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