Persistent Corneal Epitheliopathy After Discontinuation Of Overnight Orthokeratology Lens Wear: A Case Report

ABSTRACT

**Purpose.** To report an unusual case of persistent corneal epitheliopathy after ceasing orthokeratology lens wear in a Chinese patient.

**Case Report.** A single observational case report of a 12-year-old Chinese male myope with 4½ years experience in wearing orthokeratology lenses overnight was diagnosed with a central corneal lesion in his left eye. The patient complained about painful sensation on that eye. Moderate central superficial corneal fluorescein staining was observed. Corneal topography revealed significant central corneal steepening in his left eye during the episode. Topical lubrication eye gel was prescribed and the patient was instructed to cease orthokeratology lens wear for one week. During the subsequent follow-up visits without orthokeratology lens wear, biomicroscopy revealed a central corneal sub-epithelial lesion in his left eye. The patient was asymptomatic at this stage. Trace negative fluorescein staining was observed over the lesion area. According to the clinical features of the corneal lesion, it mimicked a corneal epithelial dystrophy. The epitheliopathy was resolved after the prescription of intensive topical lubrication eye drops and eye gel for 8 months after the discontinuation of orthokeratology lens wear.

**Discussion.** The possible etiology, clinical management and differential diagnosis of this post-orthokeratology central corneal epitheliopathy are discussed.

**Conclusion.** Central corneal epitheliopathy may be induced by long-term orthokeratology lens wear. The exact mechanism of corneal insult and its recovery process are not fully understood. Nevertheless, it should be ruled out from true corneal dystrophy case.