

EBMD: PART 2

Get to the bottom of the basement to treat this common pathology.



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AND ETHIN S. KIEKHAFFER, OD

Given the plethora of clinical presentations discussed in last month's column, it is only fitting that we review just as many therapeutic options to treat epithelial basement membrane dystrophy (EBMD) and prevent recurrent erosions.

In order to properly discuss the treatment and management of EBMD, we must first consider the presence of comorbid conditions, such as dry eye disease (including meibomian gland dysfunction), ocular rosacea, and, most importantly, a history of ocular trauma. The primary focus of all treatments should be to reduce ocular surface inflammation and maximize ocular surface lubrication. However, each of the aforementioned possible comorbid conditions increases the risk of therapeutic ineffectiveness secondary to excessive mechanical trauma, weakened epithelial adhesion, and resultant corneal erosion.¹

TREATING EBMD AND ITS SEQUELAE

No one-size-fits-all therapy exists for EBMD, making it a rather frustrating condition for those who are symptomatic. Initial treatment consisting of frequent artificial tears and a nightly lubricating or hypertonic saline ointment remains a mainstay in our optometric toolbox. These options offer an easy and affordable intervention that has proven to be effective in roughly half of all patients with EBMD.²

Patients who do not experience an improvement with initial therapy may benefit from the addition of a mild topical steroid, such as loteprednol, and/or low-dose doxycycline.³ Each of these aids in reducing the effects of matrix metalloproteinase-9 and thus lowers the risk of future erosions.⁴ Additional therapy often includes autologous serum eye drops and bandage contact lenses.⁵ Amniotic membranes can also be used to hasten recovery for repeat offenders with larger, more central defects.⁶

Some patients will not respond to medical therapy despite maximum treatment efforts. Even with epithelial debridement, a faulty basal lamina often remains. Procedural intervention, such as superficial keratectomy with diamond burr polishing, anterior stromal puncture, or phototherapeutic keratectomy, is the most practical way to “hit the reset button” and promote healthy epithelial and basement membrane development. These procedures have comparable efficacies in preventing recurrent erosions, each with recurrence rates

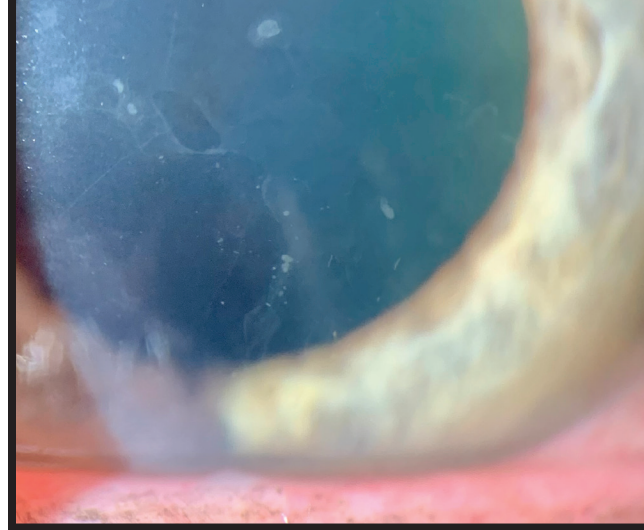


Figure. Significant EBMD demonstrating maps, dots, and blebs in a patient with a history of recurrent corneal erosions.

between 10% and 25%, depending on the source.⁷⁻⁹ However, nonlaser therapies remain a more cost-effective treatment option, with reports of less postoperative haze.⁹

SET EXPECTATIONS EARLY

There are a multitude of therapeutic and procedural options when it comes to managing EBMD. A stepwise approach should be employed with patients who do not see a benefit with initial topical and oral therapy before resorting to more invasive interventions. However, not all patients respond in the same manner. It is always important to address comorbid conditions first and to be aware of previously attempted therapies when discussing next steps in these challenging cases. For patients with EBMD-related recurrent erosions (Figure), it is best to manage their expectations and plant the seed early that several different steps or interventions may be required to achieve remission. ■

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