

To Remove or Not to Remove: That is the Question!

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Multiple-choice Questions

1. Which of the following ocular conditions is NOT associated with Salzmann Nodular Degeneration?
 - a. Pinguecula
 - b. Pterygium
 - c. Ocular surface disease
 - d. Meibomian gland dysfunction
2. In what region of the cornea are Salzmann nodules typically located?
 - a. Center
 - b. Periphery
 - c. Midperiphery
 - d. None of the above
3. Which of the following conditions is known to cause an area of flattening on the curvature map of a corneal topography?
 - a. Epithelial basement membrane dystrophy
 - b. Recurrent corneal erosion
 - c. Salzmann nodule
 - d. Corneal abrasion
4. Which of the following is considered a top differential for Salzmann nodular degeneration?
 - a. Ocular surface squamous neoplasia
 - b. Pterygium
 - c. Epithelial basement membrane dystrophy
 - d. Arcus
5. Which of the following procedures may lead to the development of a Salzmann nodule?
 - a. Pterygium removal
 - b. Cataract surgery
 - c. LASIK
 - d. All of the above

6. What type of corneal astigmatism is most often induced with the development of a pterygium?
 - a. Against the rule
 - b. With the rule
 - c. Oblique
 - d. Irregular
7. What explanation accurately describes why pterygia most often develop nasally?
 - a. The cornea acts as a lens increasing the intensity of light that enters temporally and focuses at the nasal limbus
 - b. UV light avoids the patient's nose
 - c. There is no good explanation
 - d. The cornea deflects the light away from the nasal limbus
8. Which type of pterygium removal technique has the lowest recurrence rate?
 - a. Autograft
 - b. Amniograft
 - c. Bare sclera technique
 - d. They are the same
9. What explanation accurately describes why patients may develop diplopia following their pterygium removal surgery?
 - a. Double vision can develop only if there is a pterygium removed from both eyes
 - b. It can be challenging to dissect the fibrous tissue off the medial rectus muscle and it is sometimes damaged in the process
 - c. The mitomycin C used during surgery is known to affect the lateral rectus muscle
 - d. High amounts of with the rule astigmatism is induced with pterygium removal
10. Which of the following is NOT likely to cause blurred vision with pterygium development?
 - a. Disruption of the tear film
 - b. Induced with the rule astigmatism
 - c. Growth into the visual axis
 - d. Foreign body sensation
11. Between which decades would one expect to first see epithelial basement membrane dystrophy occur in a patient?
 - a. 2nd to 3rd
 - b. 3rd to 5th
 - c. 5th to 6th

- d. 8th to 9th
12. What percentage of patients with EBMD will develop recurrent corneal erosions?
- a. 10%
 - b. 20%
 - c. 25%
 - d. 40%
13. Which of the following names are sometimes used to describe epithelial basement membrane dystrophy?
- a. Anterior basement membrane dystrophy (ABMD)
 - b. Map-Dot-Fingerprint dystrophy
 - c. Cogan's Dystrophy
 - d. All of the above
14. What technique can be used in office to help determine if EBMD is the main cause of blurred vision in a patient who also has cataracts?
- a. Soft contact lens over refraction
 - b. Hard contact lens over refraction
 - c. Corneal topography
 - d. Corneal sweeper technique
15. What is the goal of superficial keratectomy for patients with EBMD?
- a. Permanently remove the EBMD and prevent it from returning
 - b. Remove the EBMD and allow the epithelium to grow back more regularly while preserving Bowman's membrane
 - c. Prevent scarring that can occur if EBMD is left alone
 - d. Correct the patient's refractive error and treat the EBMD
16. What is the most common cause of recurrent corneal erosions?
- a. Epithelial basement membrane dystrophy
 - b. Poor genetics
 - c. Trauma
 - d. LASIK surgery
17. By what percentage does a normal cornea swell each night in a closed eye environment?
- a. 4%
 - b. 10%
 - c. 15%
 - d. 19%
18. What is the goal of using either topical steroids or oral doxycycline to treat recurrent corneal erosions?
- a. Reduce matrix metalloproteinases (MMPs)

- b. Reduce the amount of bacteria present
 - c. Lubricate the ocular surface
 - d. Mimic the biochemical properties of the basal tears
19. Which treatment was found to have the lowest recurrence rate of RCEs over a 6 month period?
- a. Bandage contact lens
 - b. Epithelial debridement followed by a bandage contact lens
 - c. Epithelial debridement followed by a cryopreserved amniotic membrane
 - d. All of the above were equally effective
20. Which of the following surgical treatments have been found to effectively treat recurrent corneal erosions?
- a. Superficial keratectomy with or without diamond burr polishing
 - b. Phototherapeutic keratectomy
 - c. Anterior stromal puncture
 - d. All of the above