The spectrum of oculocutaneous disease

Part I. Infectious, inflammatory, and genetic causes of oculocutaneous disease

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After completing this learning activity, participants should be able to recognize infectious, inflammatory, and genetic oculocutaneous diseases; recognize and differentiate the cutaneous manifestations of several ocular disorders; describe the pathophysiology and genetics of how ocular disorders may manifest cutaneously; and order appropriate tasks and initiate timely referral to ophthalmologists and other subspecialists for early diagnosis, surveillance, and treatment of ocular disease.

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Many skin diseases are associated with ocular findings, emphasizing the need for dermatologists to be fully aware of their presence, and as a result, avoid overlooking conditions with potentially major ocular complications, including blindness. We review important oculocutaneous disease associations with recommendations for the management of the ocular complications and appropriate referral to our ophthalmology colleagues. Part I of this 2-part review focuses on the infectious, inflammatory, and genetic relationships. (J Am Acad Dermatol 2014;70:795.e1-25.)

Key words: autoimmune; dermatology; genetic; infection; inflammatory; oculocutaneous; ophthalmology.

INTRODUCTION

Currently, there is no comprehensive review of the association between cutaneous dermatoses and ocular disease in the dermatologic literature. We review important oculocutaneous disease associations with recommendations for the diagnosis, management, and appropriate referral to our ophthalmology colleagues. This review is divided into 2 parts: part I focuses on the infectious, inflammatory, and genetic relationships of oculocutaneous diseases, and part II addresses neoplastic and drug-related oculocutaneous conditions. A glossary of ophthalmology terms (Table I) and review of ocular anatomy (Fig 1) have been included.

INFECTION

A summary of eye findings in infectious oculocutaneous diseases and recommendations regarding when to refer to ophthalmology if a patient has signs/symptoms of ocular disease can be found in Table II.

Viral

Herpes simplex virus

Key points

- **Ocular herpes simplex virus is a leading cause of blindness in developed countries and worldwide**
- **The acute "dendritic ulcer" of ocular herpes simplex virus may progress to chronic scarring keratitis and visual impairment**
- **Intraocular topical antiviral medications, corticosteroids, and debridement help prevent scarring, and systemic antiviral therapy decreases the risk of recurrence**

Ocular herpes simplex virus (HSV) has a reported annual incidence of 20.7 cases (new and recurrent) per 100,000 people per year and is the most common cause of corneal blindness in developed countries and unilateral corneal blindness worldwide.[1] Ocular HSV typically presents with grouped, painful vesicles near or around the eye. In addition, it can cause conjunctivitis or blepharoconjunctivitis, in which vesicles are seen on the eyelid. There are 2 important ocular complications of HSV: epithelial and stromal keratitis. Epithelial keratitis presents with a characteristic "dendritic ulcer," caused by inflammation of the epithelial surface of the cornea. Stromal keratitis, seen more commonly with recurrent HSV infection, is caused by inflammation of the middle corneal layer with the potential to cause corneal scarring and future blindness.[2,3] Early diagnosis and treatment are imperative to prevent these complications. Patients with grouped

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