The spectrum of oculocutaneous disease

Part II. Neoplastic and drug-related causes of oculocutaneous disease

Antoinette Day, BS,[a] Amanda K. Abramson, MD,[b] Mahir Patel, MD,[b]
Richard B. Warren, MD, PhD,[c] and M. Alan Menter, MD[b]
College Station and Dallas, Texas; and Manchester, United Kingdom

CME INSTRUCTIONS

The following is a journal-based CME activity presented by the American Academy of Dermatology and is made up of four phases:

1. Reading of the CME Information (delineated below)
2. Reading of the Source Article
3. Achievement of a 70% or higher on the online Case-based Post Test
4. Completion of the Journal CME Evaluation

CME INFORMATION AND DISCLOSURES

Statement of Need:

The American Academy of Dermatology bases its CME activities on the Academy's core curriculum, identified professional practice gaps, the educational needs which underlie these gaps, and emerging clinical research findings. Learners should reflect upon clinical and scientific information presented in the article and determine the need for further study.

Target Audience:

Dermatologists and others involved in the delivery of dermatologic care.

Accreditation

The American Academy of Dermatology is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

AMA PRA Credit Designation

The American Academy of Dermatology designates this journal-based CME activity for a maximum of 1 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

AAD Recognized Credit

This journal-based CME activity is recognized by the American Academy of Dermatology for 1 AAD Credit and may be used toward the American Academy of Dermatology's Continuing Medical Education Award.

Disclaimer:

The American Academy of Dermatology is not responsible for statements made by the author(s). Statements or opinions expressed in this activity reflect the views of the author(s) and do not reflect the official policy of the American Academy of Dermatology. The information provided in this CME activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to the diagnostic, management and treatment options of a specific patient's medical condition.

Disclosures

Editors

The editors involved with this CME activity and all content validation/peer reviewers of this journal-based CME activity have reported no relevant financial relationships with commercial interest(s).

Authors

Dr Alan Menter has reported the following financial relationships: Abbott Laboratories, Consultant, Honorarium; Abbott Laboratories, Speaker, Honorarium; Abbott Laboratories, Principle Investigator, Honorarium; Abbott Laboratories, Advisory Board, Grants/Research Funding; AbbVie, Speaker, Fees; Amgen, Advisory Board, Grants/Research Funding; Amgen, Speaker, Honorarium; Astellas Pharma US, Inc, Advisory Board, Honorarium; Astellas Pharma US, Inc, Consultant, Grants/Research Funding; Celgene Corporation, Principal Investigator, Grants/Research Funding; Centocor Ortho Biotech, Inc, Consultant, Grants/Research Funding; Centocor Ortho Biotech, Inc, Advisory Board, Honorarium; Eli Lilly and Company, Principal Investigator, Grants/Research Funding; Galderma Laboratories, Advisory Board, Honorarium; Galderma Laboratories, Speaker, Honorarium; Genentech, Inc, Advisory Board, Grants/Research Funding; Novartis Pharmaceuticals Corp, Principal Investigator, Grants/Research Funding; Novo Nordisk A/S, Principal Investigator, Grants/Research Funding; Pfizer, Inc, Speaker, Honorarium; Pfizer, Inc, Advisory Board, Honorarium; Pfizer, Inc, Principal Investigator, Grants/Research Funding; Promius Pharma, LLC, Principal Investigator, Grants/Research Funding; Stiefel a GSK company, Principal Investigator, Grants/Research Funding; Syntrix, Principal Investigator, Grants/Research Funding; Warner Chilcott, Advisory Board, Honorarium; Warner Chilcott, Advisory Board, Honorarium. Dr Richard B. Warren has reported the following financial relationships: Abbvie, Advisory Board, Honorarium; AbbVie, Speaker, Honorarium; Amgen, Consultant, Honorarium; Leo, Advisory Board, Honorarium; Leo, Speaker, Honorarium; Pfizer, Inc, Advisory Board, Honorarium; Pfizer, Inc, Speaker, Honorarium; Novartis Pharmaceuticals Corp, Advisory Board, Honorarium; Novartis Pharmaceuticals Corp, Speaker, Honorarium; Novartis Pharmaceuticals Corp, Principal Investigator, Honorarium; Janssen, Advisory Board, Honorarium; Janssen, Speaker, Honorarium. Drs Amanda Abramson and Mahir Patel have no conflicts of interest to disclose and Ms Antoinette Day has no conflicts of interest to disclose.

Planners

The planners involved with this journal-based CME activity have reported no relevant financial relationships with commercial interest(s). The editorial and education staff involved with this journal-based CME activity have reported no relevant financial relationships with commercial interest(s).

Resolution of Conflicts of Interest

In accordance with the ACCME Standards for Commercial Support of CME, the American Academy of Dermatology has implemented mechanisms, prior to the planning and implementation of this Journal-based CME activity, to identify and mitigate conflicts of interest for all individuals in a position to control the content of this Journal-based CME activity.

Learning Objectives

After completing this learning activity, participants should be able to identify ocular symptoms associated with neoplastic and drug-related dermatologic disorders; recognize and differentiate the cutaneous manifestations of several ocular disorders; and order appropriate tasks and initiate timely referral to ophthalmologists and other subspecialists for early diagnosis, surveillance, and treatment of ocular disease.

Date of release: May 2014
Expiration date: May 2017

http://dx.doi.org/10.1016/j.jaad.2013.12.019

Technical requirements:

American Academy of Dermatology:

- Supported browsers: FireFox (3 and higher), Google Chrome (5 and higher), Internet Explorer (7 and higher), Safari (5 and higher), Opera (10 and higher).
- JavaScript needs to be enabled.

Elsevier:

Technical Requirements
This website can be viewed on a PC or Mac. We recommend a minimum of:

- PC: Windows NT, Windows 2000, Windows ME, or Windows XP
- Mac: OS X
- 128MB RAM
- Processor speed of 500MHz or higher
- 800×600 color monitor
- Video or graphics card
- Sound card and speakers

Provider Contact Information:

American Academy of Dermatology
Phone: Toll-free: (866) 503-SKIN (7546); International: (847) 240-1280
Fax: (847) 240-1859
Mail: P.O. Box 4014; Schaumburg, IL 60168

Confidentiality Statement:

American Academy of Dermatology: POLICY ON PRIVACY AND CONFIDENTIALITY

Privacy Policy - The American Academy of Dermatology (the Academy) is committed to maintaining the privacy of the personal information of visitors to its sites. Our policies are designed to disclose the information collected and how it will be used. This policy applies solely to the information provided while visiting this website. The terms of the privacy policy do not govern personal information furnished through any means other than this website (such as by telephone or mail).

E-mail Addresses and Other Personal Information - Personal information such as postal and e-mail address may be used internally for maintaining member records, marketing purposes, and alerting customers or members of additional services available. Phone numbers may also be used by the Academy when questions about products or services ordered arise. The Academy will not reveal any information about an individual user to third parties except to comply with applicable laws or valid legal processes.

Cookies - A cookie is a small file stored on the site user's computer or Web server and is used to aid Web navigation. Session cookies are temporary files created when a user signs in on the website or uses the personalized features (such as keeping track of items in the shopping cart). Session cookies are removed when a user logs off or when the browser is closed. Persistent cookies are permanent files and must be deleted manually. Tracking or other information collected from persistent cookies or any session cookie is used strictly for the user's efficient navigation of the site.

Links - This site may contain links to other sites. The Academy is not responsible for the privacy practices or the content of such websites.

Children - This website is not designed or intended to attract children under the age of 13. The Academy does not collect personal information from anyone it knows is under the age of 13.

Elsevier: http://www.elsevier.com/wps/find/privacypolicy.cws_home/privacypolicy

There are a multitude of diseases that commonly affect both the skin and the eye. Part II of this 2-part series reviews the oculocutaneous manifestations of neoplasms, both benign and malignant, and adverse drug reactions affecting the skin and the eye. Though rare, a number of neoplasms that primarily involve the skin, such as melanoma and basal cell carcinoma, can metastasize to the eye, leading to permanent damage if not properly treated. In addition, periocular neoplasms can irritate the conjunctiva and lid, reducing a patient's ability to see clearly. Neoplastic diseases, such as xeroderma pigmentosum, Sturge–Weber syndrome, and multiple myeloma, can also lead to permanent changes in the eye if not discovered and managed promptly. Furthermore, there are a multitude of drugs, including those commonly used by dermatologists, which can result in permanent damage to the eye. With proper knowledge of the ocular manifestations and treatment recommendations described in this 2-part series, dermatologists with the assistance of their ophthalmology colleagues can help avoid the complications, including permanent blindness, associated with infectious, inflammatory, genetic, neoplastic, and drug-related conditions. (J Am Acad Dermatol 2014;70:821.e1-19.)

Key words: basal cell nevus syndrome; cutaneous T-cell lymphoma; drug reactions; EGFR; inhibitormultiple myeloma; oculocutaneous; periocular neoplasm; PHACES; Stevens-Johnson Syndrome; Sturge Weber Syndrome; toxic epidermal necrolysis; xeroderma pigmentosum.

INTRODUCTION

There are multiple diseases that concomitantly affect the ocular and cutaneous organ systems as a result of their mutual ectodermal origin. Part I of this two-part CME article reviewed the full spectrum of infectious, inflammatory, and genetic diseases common to both these organs. Part II focuses on neoplastic and drug-related oculocutaneous manifestations with recommendations for appropriate diagnosis and treatment by dermatologists and referral as necessary to our ophthalmology colleagues. A summary of ocular manifestations can be found in Tables I and II.

NEOPLASTIC

Benign

Squamous cell papilloma of the eyelid

Key points

- **Squamous cell papillomas are associated with human papillomavirus types 6 and 11**
- **Large periorbital lesions can induce astigmatism and are cosmetically unappealing**
- **Treatment involves intralesional interferon-alfa or surgical excision**

A squamous cell papilloma, also known as infectious conjunctival papilloma, is one of the most

From the Texas A&M Health Science Center College of Medicine,[a] College Station; Baylor University Medical Center,[b] Dallas; and The Dermatology Centre,[c] Salford Royal National Health Service Foundation Trust, University of Manchester.

Funding sources: None.

Dr Alan Menter has reported the following financial relationships: Abbott Laboratories, Consultant, Honorarium; Abbott Laboratories, Speaker, Honorarium; Abbott Laboratories, Principle Investigator, Honorarium; Abbott Laboratories, Advisory Board, Grants/Research Funding; AbbVie, Speaker, Fees; Amgen, Advisory Board, Grants/Research Funding; Amgen, Speaker, Honorarium; Astellas Pharma US, Inc, Advisory Board, Honorarium; Astellas Pharma US, Inc, Consultant, Grants/Research Funding; Celgene Corporation, Principal Investigator, Grants/Research Funding; Centocor Ortho Biotech, Inc, Consultant, Grants/Research Funding; Centocor Ortho Biotech, Inc, Advisory Board, Honorarium; Eli Lilly and Company, Principal Investigator, Grants/Research Funding; Galderma Laboratories, Advisory Board, Honorarium; Galderma Laboratories, Speaker, Honorarium; Genentech, Inc, Advisory Board, Grants/Research Funding; Novartis Pharmaceuticals Corp, Principal Investigator, Grants/Research Funding; Novo Nordisk A/S, Principal Investigator, Grants/Research Funding; Pfizer, Inc, Speaker, Honorarium; Pfizer, Inc, Advisory Board, Honorarium; Pfizer, Inc, Principal Investigator, Grants/Research Funding; Promius Pharma, LLC, Principal Investigator, Grants/Research Funding; Stiefel a GSK company, Principal Investigator, Grants/Research Funding; Syntrix, Principal Investigator, Grants/Research Funding; Warner Chilcott, Advisory Board, Honorarium; Warner Chilcott, Advisory Board, Honorarium. Dr Richard B. Warren has reported the following financial relationships: Abbvie, Advisory Board, Honorarium; AbbVie, Speaker, Honorarium; Amgen, Consultant, Honorarium; Leo, Advisory Board, Honorarium; Leo, Speaker, Honorarium; Pfizer, Inc, Advisory Board, Honorarium; Pfizer, Inc, Speaker, Honorarium; Novartis Pharmaceuticals Corp, Advisory Board, Honorarium; Novartis Pharmaceuticals Corp, Speaker, Honorarium; Novartis Pharmaceuticals Corp, Principal Investigator, Honorarium; Janssen, Advisory Board, Honorarium; Janssen, Speaker, Honorarium. Drs Amanda Abramson and Mahir Patel have no conflicts of interest to disclose and Ms Antoinette Day has no conflicts of interest to disclose.

Reprint requests: M. Alan Menter, MD, Baylor University Medical Center, Texas A&M Health Science Center, 3900 Junius St, Ste 125, Dallas, TX 75246. E-mail: amderm@gmail.com.

0190-9622/$36.00