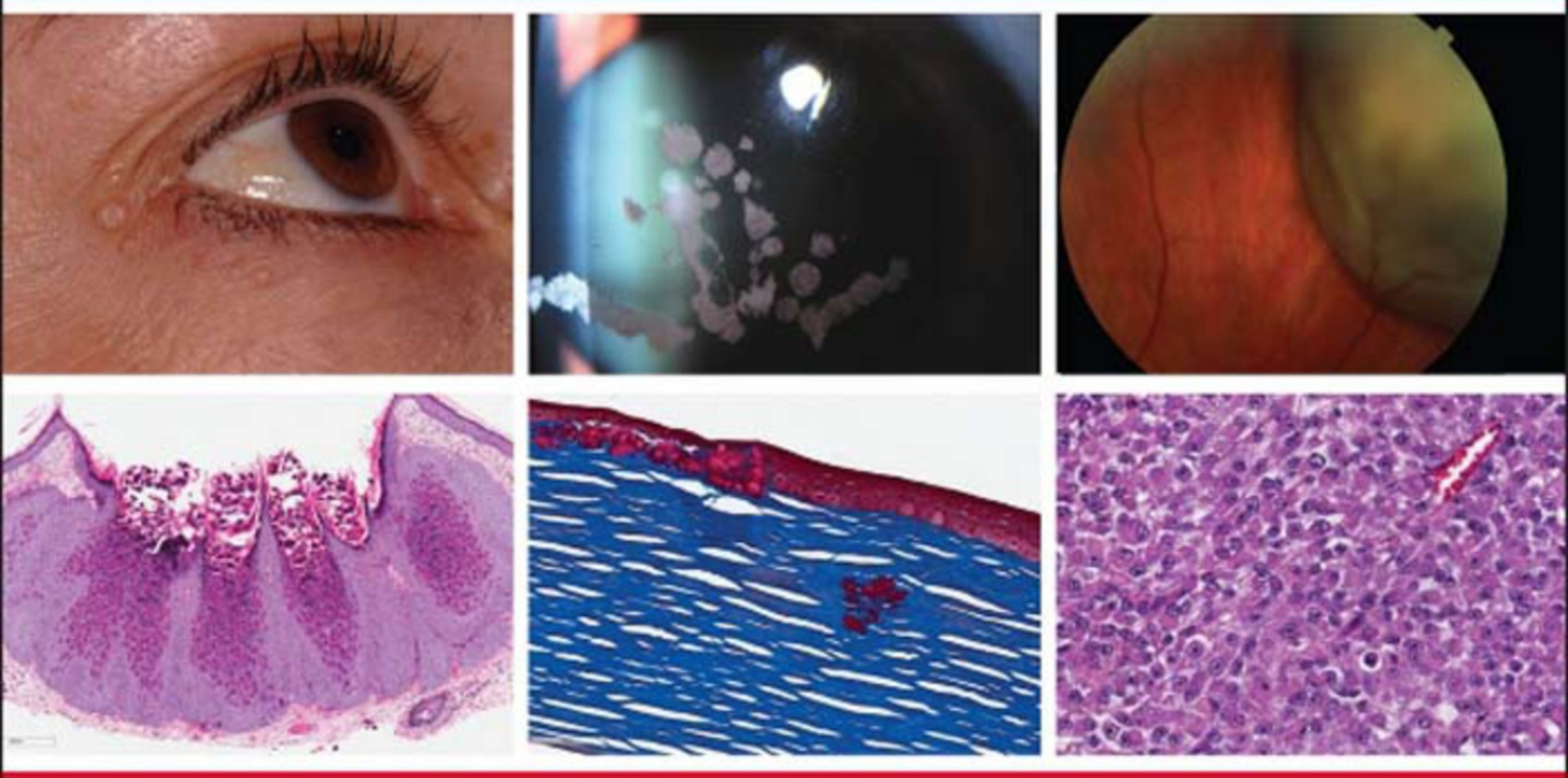
Amir A. Azari • Daniel M. Albert

Ocular Pathology Case Reviews



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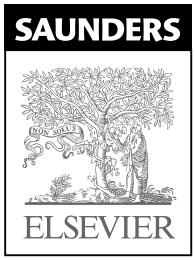

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Contents

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Preface

The goal of this book is to provide clinicians with the ability to look at images of the important lesions of the eye and adnexa so they can more quickly and accurately make the diagnosis. This facility is achieved by providing case studies with representative clinical pictures, accompanied by the histopathological appearance of that lesion. As residents and fellows, we gain experience in "sight recognition" of lesions as viewed directly on the lids and external surface of the eye or by slit-lamp, ophthalmoscope or an imaging study. Some lesions are sufficiently distinctive to be diagnosed based on "sight recognition" without analysis. Often, however, they suggest more than one possibility, i.e., a differential diagnosis. Analysis of both the clinical evidence and histopathology is necessary to make a final correct diagnosis.

This book highlights 200 frequently encountered or challenging examples of ocular and adnexal disorders, together with their associated pathologic appearance. It attempts to simulate what the clinician experiences when examining the patient in a clinical setting, by presenting each case initially as an "unknown", without specifically pointing out to the reader the diagnostic, clinical, and pathologic features that characterize the diagnosis. The reader must then analyze, on his or her own, the clinical or differential diagnosis, and then the confirming pathologic diagnosis. Supporting pages for each case present the same images accompanied by concise labels indicating the key points to be noted in order to make the correct diagnosis. This enables the reader to determine if his or her interpretation and diagnosis is accurate.

In this manner, utilizing self-instruction, *Ocular Pathology Case Reviews* enables ophthalmologists to recognize those features necessary to make correct diagnoses. With repetition, his or her ability to analyze, interpret, and make that diagnosis is reinforced, and the clinical appearance and histological features become correlated in a manner closely approximating that of clinical experience.

Clinicians who have a firm grasp of the clinical–pathologic correlation are better able to meet the challenges of everyday clinical practice, allowing for a high quality and more enjoyable experience that ultimately benefits patients. Whether used as an initial learning tool, or as a method of review, the authors believe *Ocular Pathology Case Reviews* will be an effective and enjoyable support to you in your practice of ophthalmology.

Amir A. Azari, MD
Daniel M. Albert, MD, MS

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Acknowledgments

The authors express their gratitude to Drs Mozghan Rezai Kanavi and Heather Potter for their assistance and encouragement in compiling this book. Drs Neal Barney, Sarah Nehls, Jason Sokol, and Justin Gottlieb generously helped in providing clinical photographs. Laura Cruz and Patty Rasmussen provided valuable assistance in its preparation. Vicky Rogness has meticulously prepared the high quality slides that are used in this book. Russell Gabbedy, Executive Content Strategist, and Sharon Nash, Senior Content Development Specialist, of Elsevier guided this book through the editorial and publishing process with expertise, insight, and graciousness.

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Dedication

This book is dedicated to
our wives for their love, patience, and support

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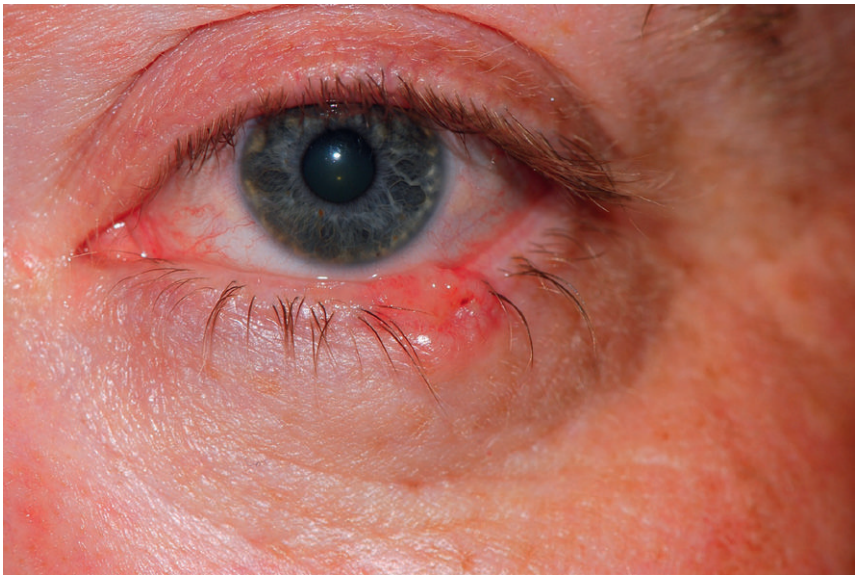
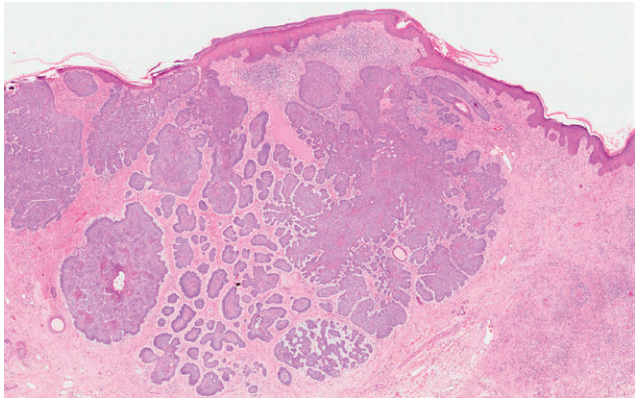
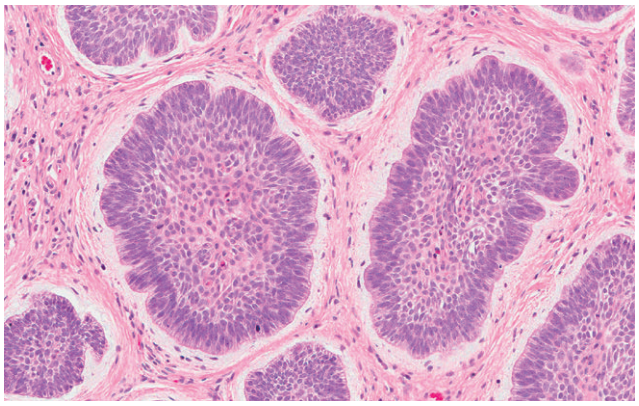


A 67-year-old woman presented with a left lower eyelid lesion. Excisional biopsy of the lesion demonstrates the histological findings shown below.

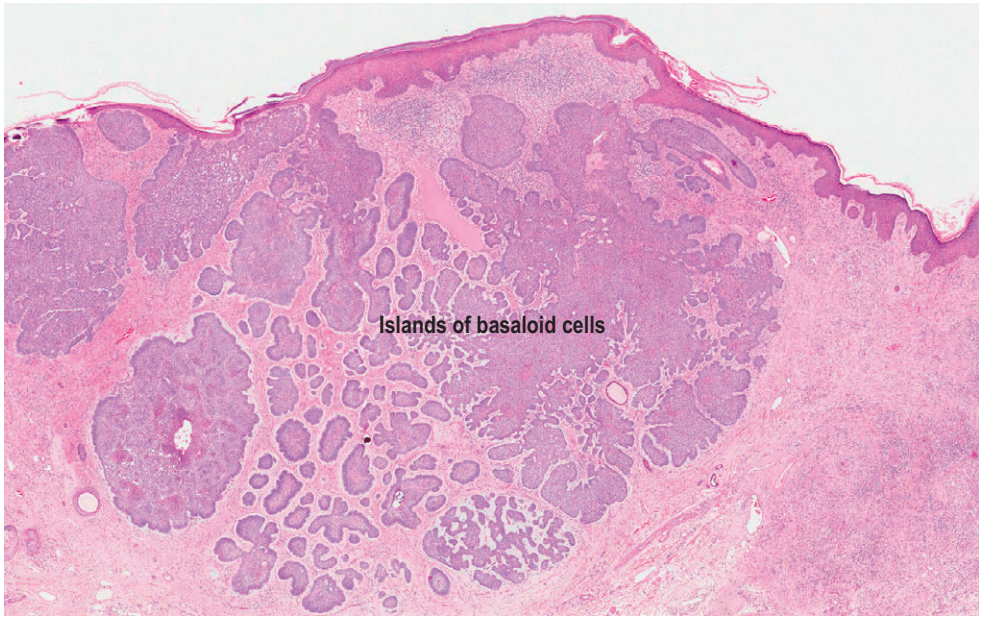


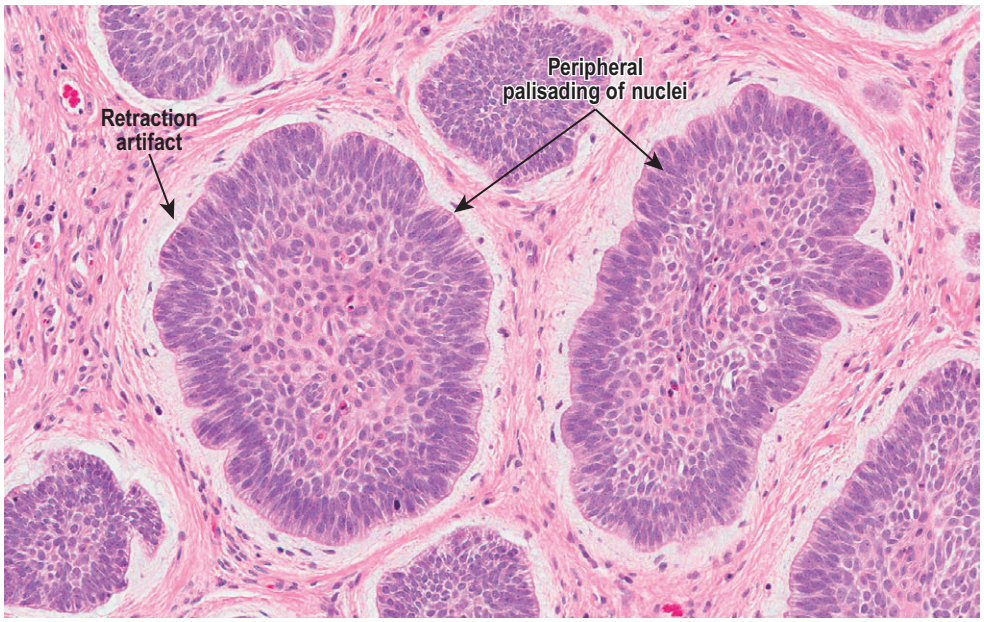


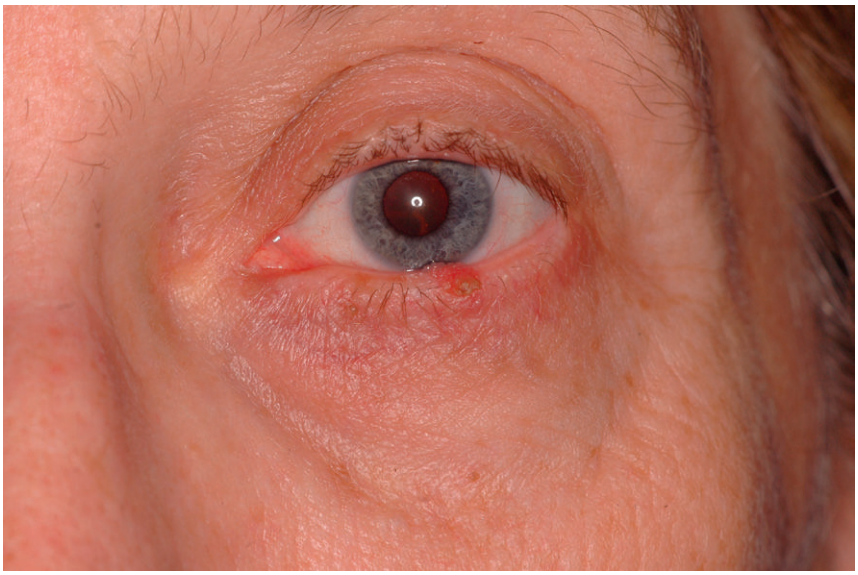
Diagnosis: Basal cell carcinoma.

Clinical description: A raised telangiectatic lesion with associated madarosis is present in the left lower eyelid.

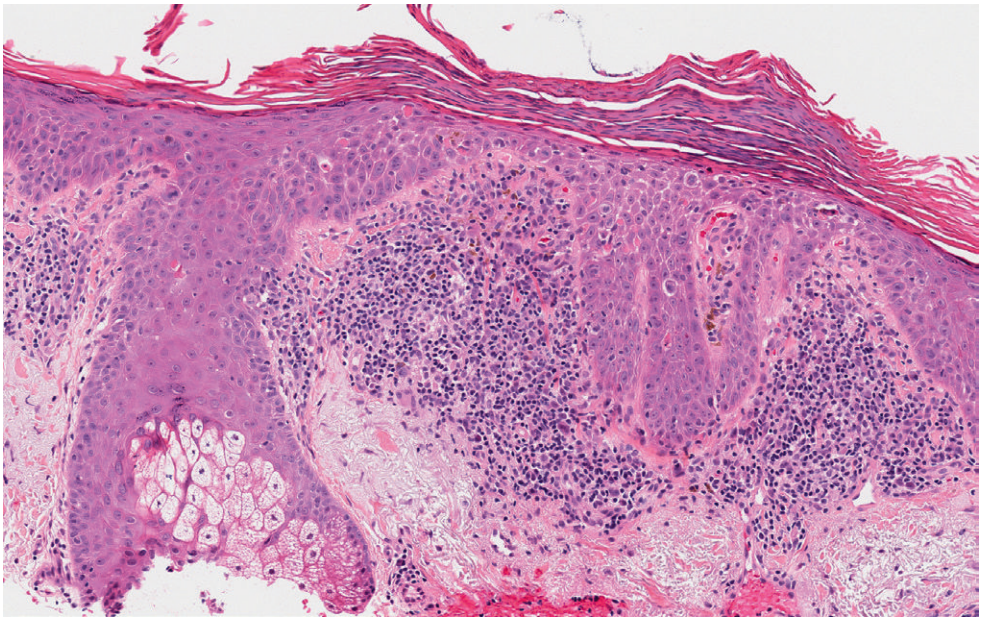
Histological description: Histopathology demonstrates tissue covered with keratinized stratified squamous epithelium. The dermis contains cords, and islands of basaloid cells, which exhibit peripheral palisading of their nuclei. A retraction artifact is seen.







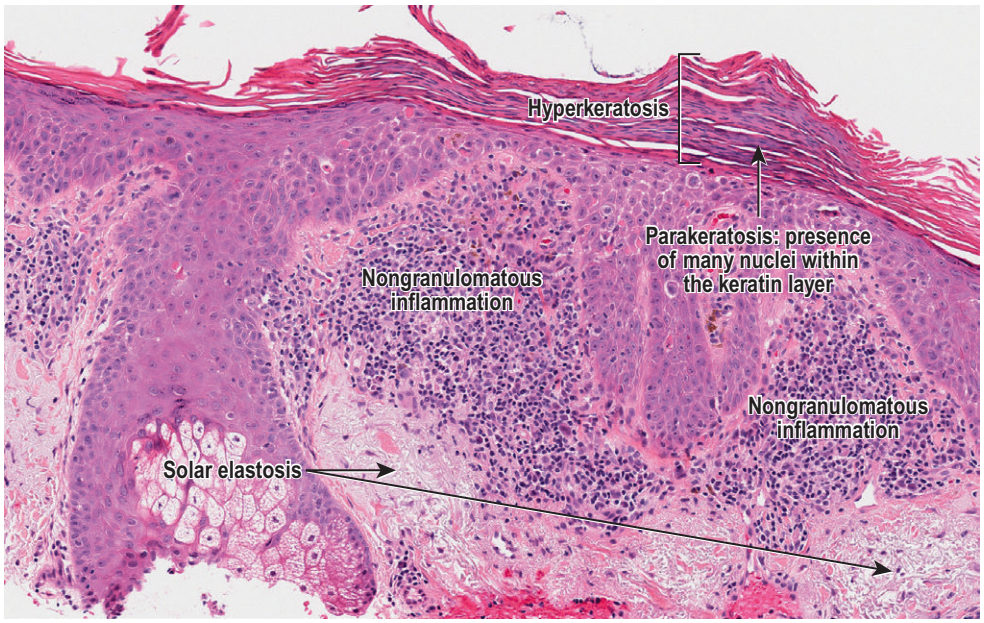
A 68-year-old woman presented with a red, itchy left lower eyelid lesion present for the past 3 months.

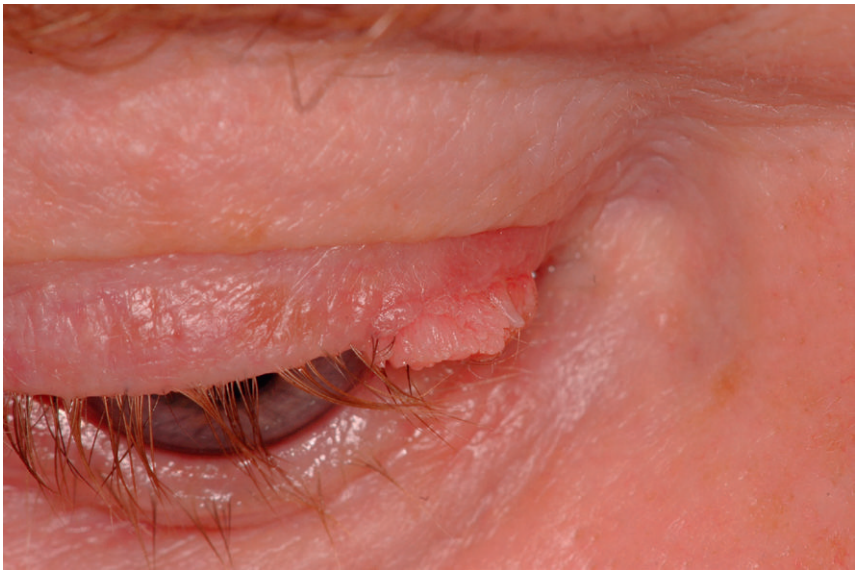


Diagnosis: Actinic keratosis.

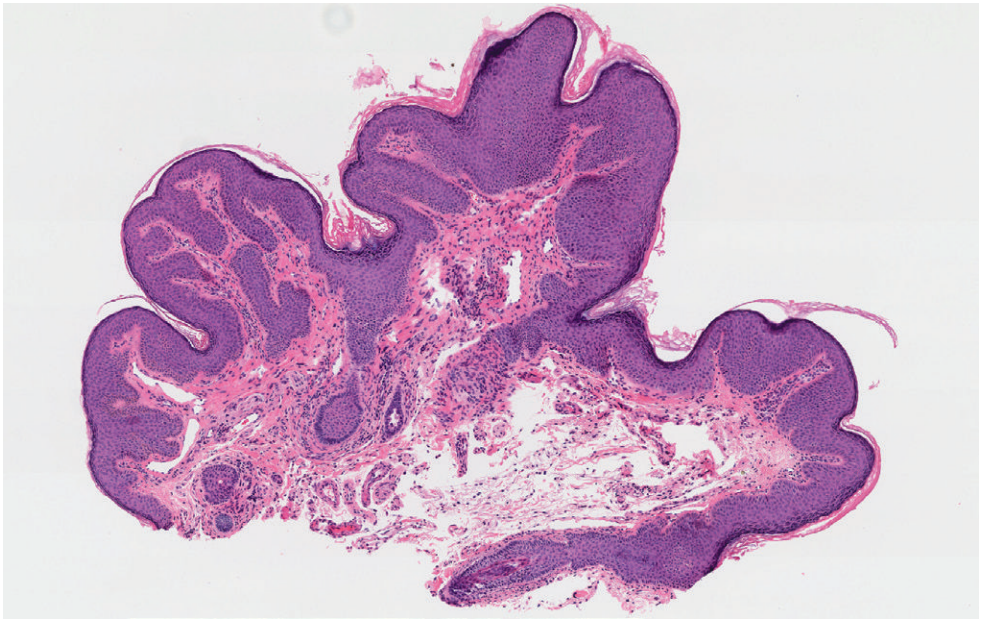
Clinical description: A red, minimally elevated, scaly lesion at the margin of the left lower lid is demonstrated.

Histological description: Variable amounts of hyperkeratosis (increased thickness of the keratin layer), parakeratosis (presence of nuclei in the keratin layer), and acanthosis (thickening of the prickle cell layer) is seen. There is some atypia in the basal layer. Mild nongranulomatous inflammation is seen within the dermis.





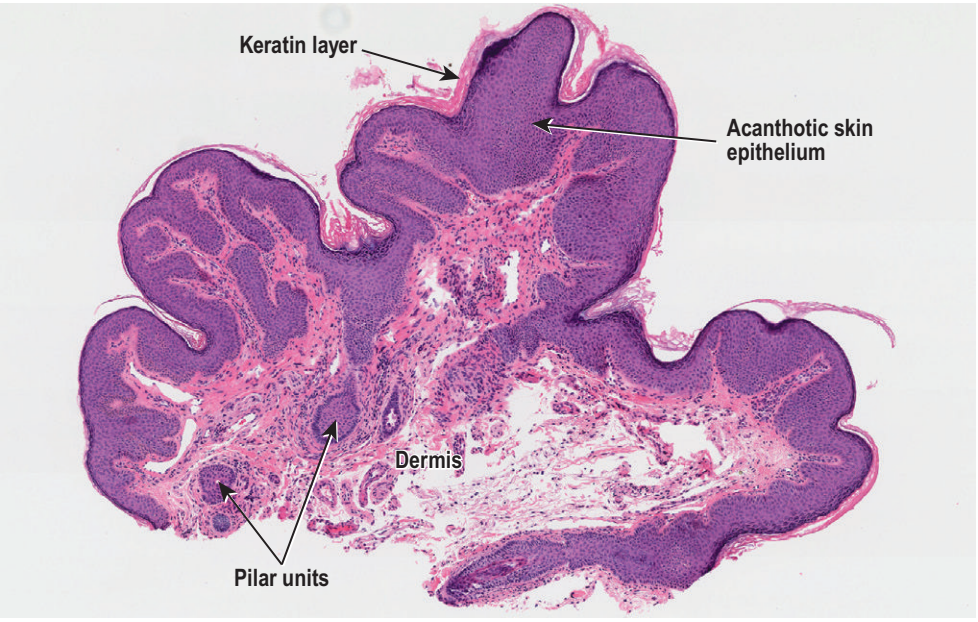
A 67-year-old woman presented with a 5-month history of a right eyelid lesion.

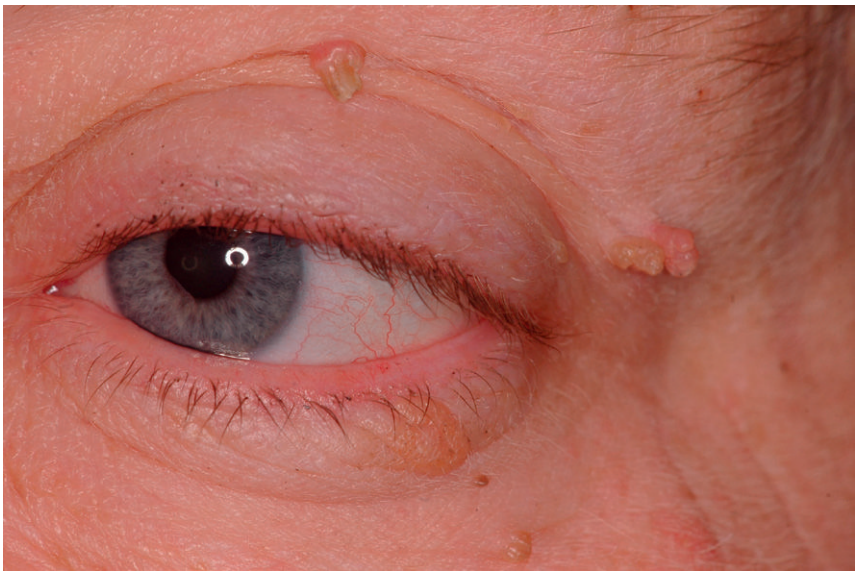


Diagnosis: Squamous cell papilloma.

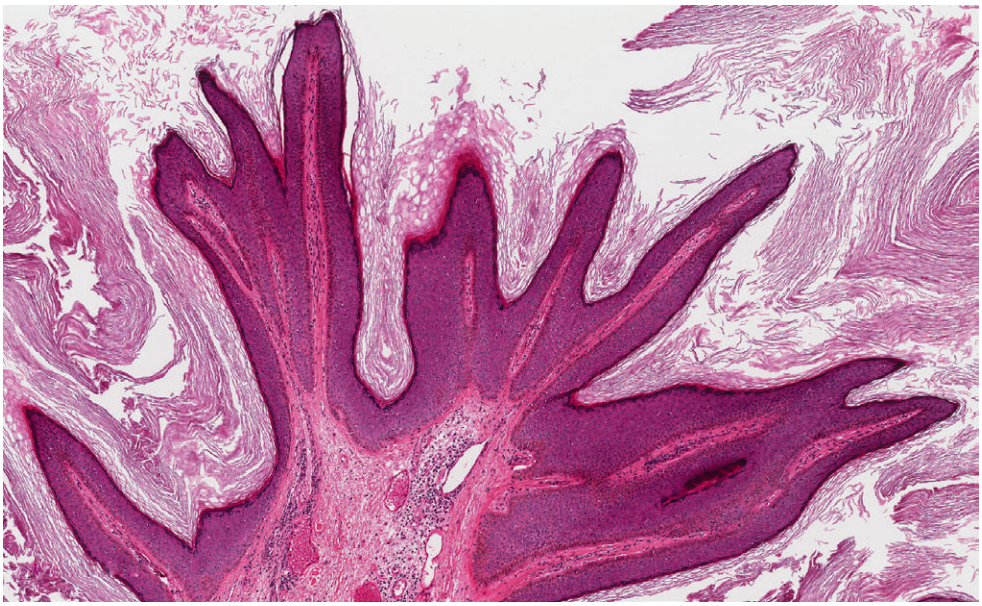
Clinical description: Clinical examination reveals a partially keratinized papillomatous right upper eyelid lesion.

Histological description: Histopathology reveals a lesion covered by keratinized stratified squamous epithelium and exhibiting acanthosis and papillary projections.





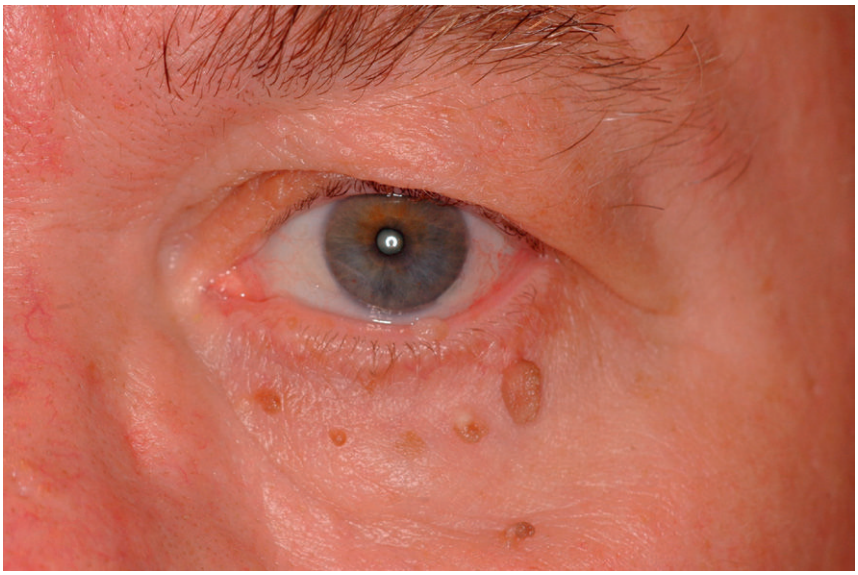
A 72-year-old woman presented with multiple eyelid lesions.



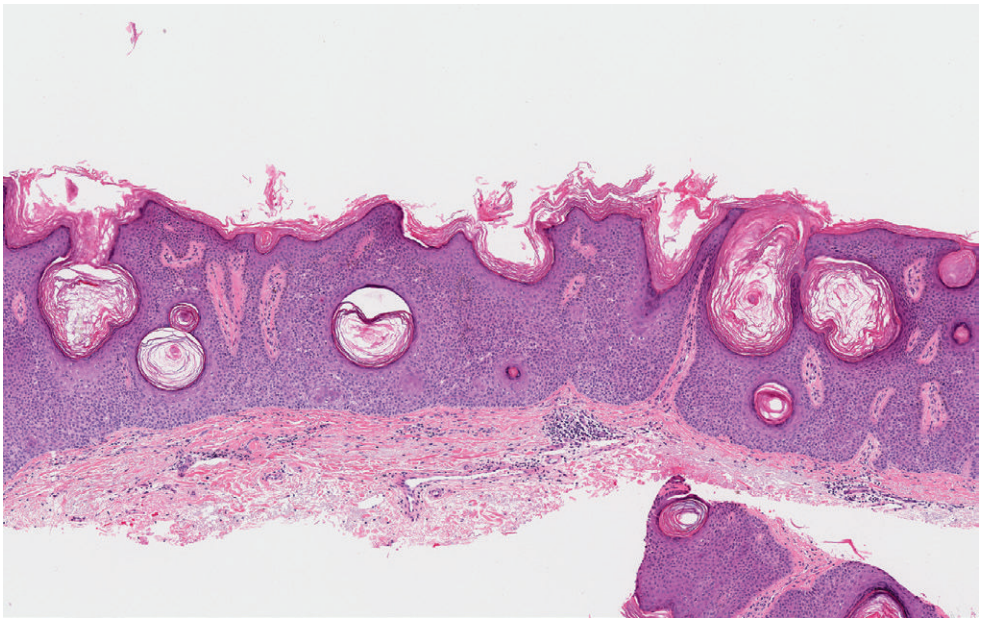
Diagnosis: Verruca vulgaris.

Clinical description: Clinical examination shows multiple keratinized lesions on the upper and lower eyelids.

Histological description: Histopathology reveals fronds of hyperkeratotic stratified squamous epithelium lining a fibrovascular dermis.



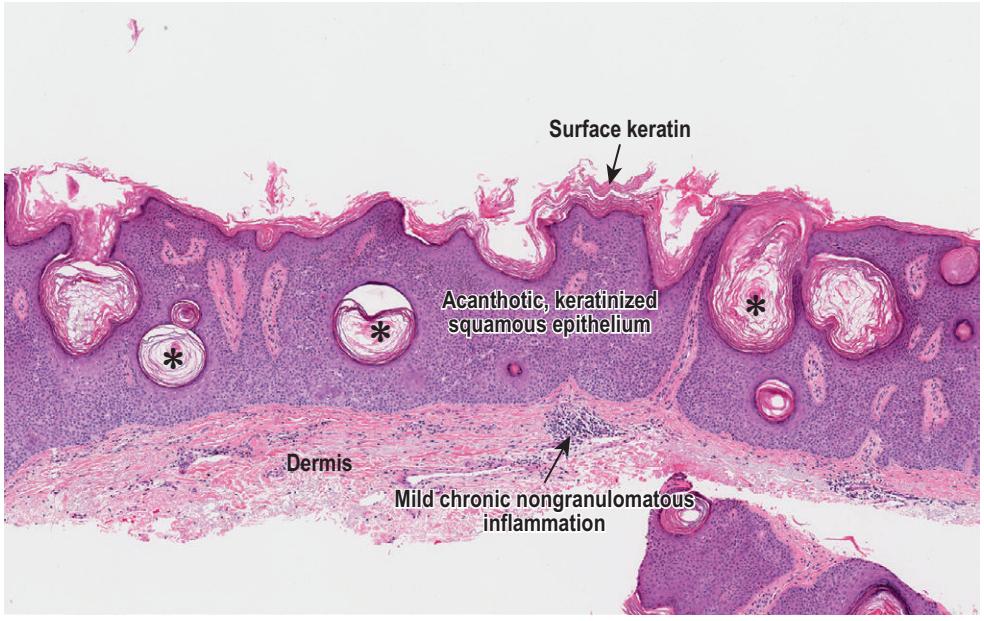
A 61-year-old man presented with multiple skin tags. The skin tags were removed in the doctor's office.

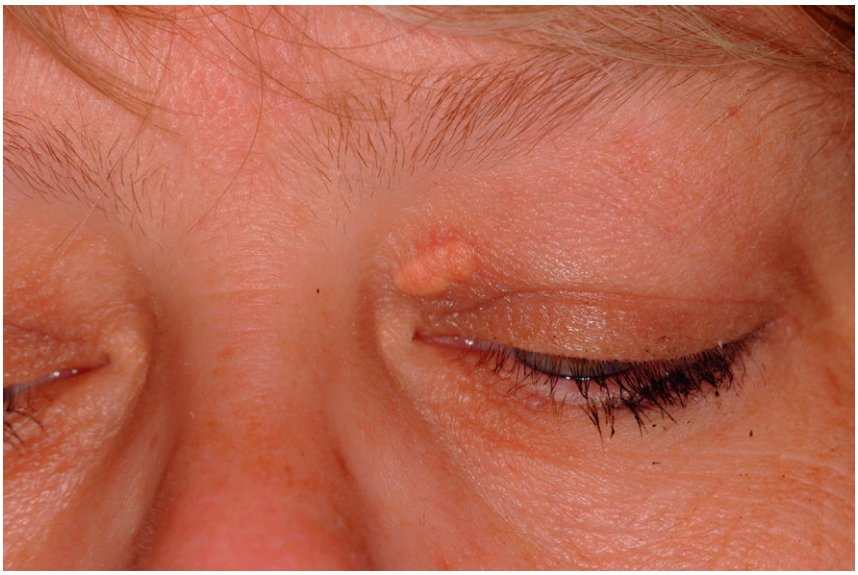


Diagnosis: Seborrheic keratosis (sessile).

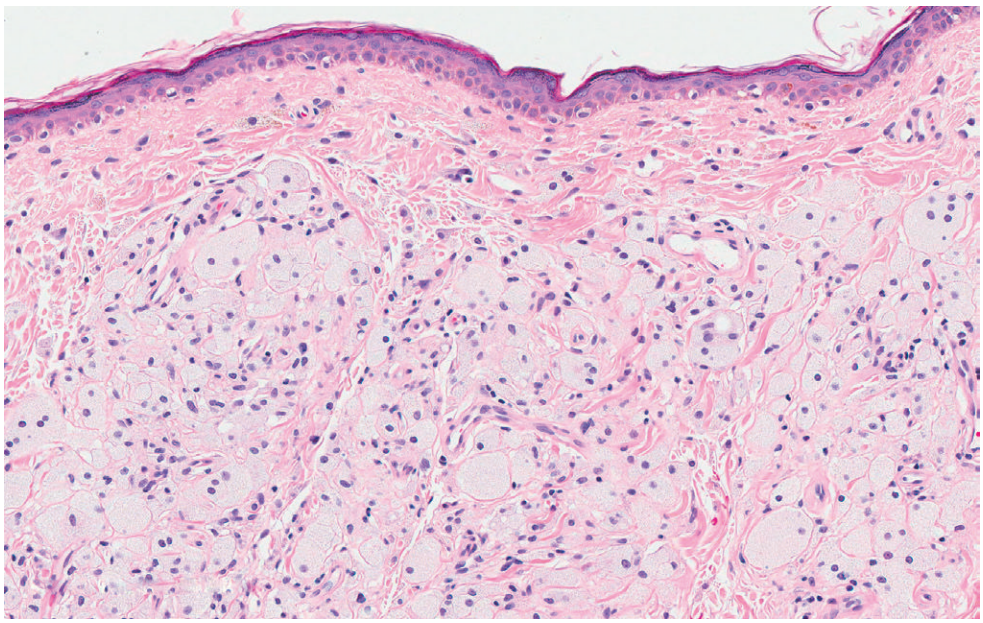
Clinical description: Multiple pigmented lesions with a "stuck-on" appearance are seen.

Histological description: Histopathology reveals mildly acanthotic, keratinized, stratified squamous epithelium with pseudohorn cysts (asterisks).





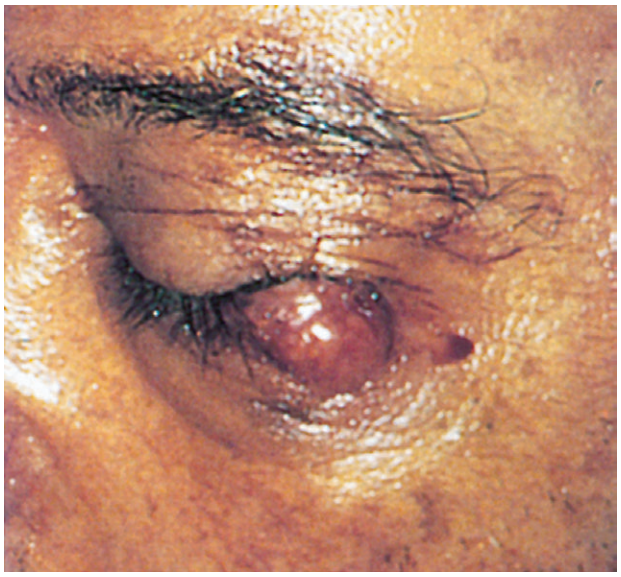
A 47-year-old woman presented with a left upper eyelid lesion. Excisional biopsy of the lesion showed the following histological findings.



Diagnosis: Xanthelasma.

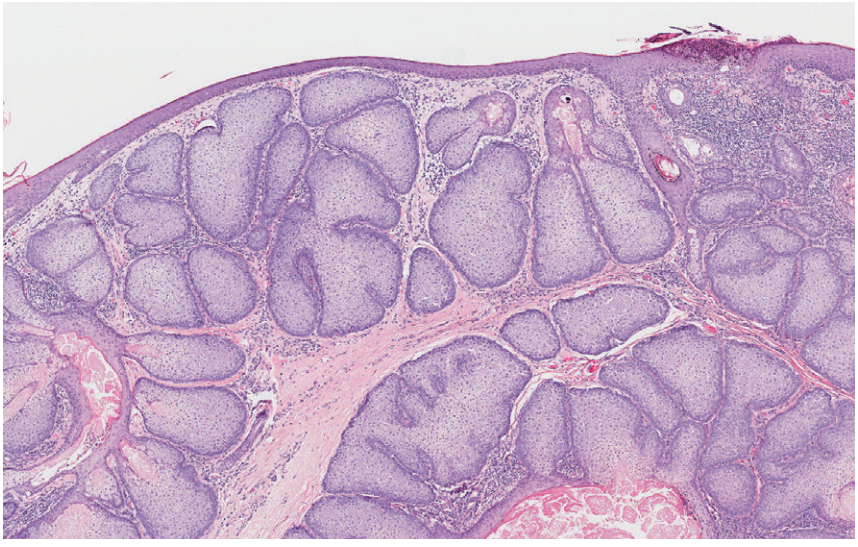
Clinical description: Clinical examination shows a yellow, elevated lesion on the left upper eyelid.

Histological description: Histopathology reveals a collection of lipid-laden histiocytes within the dermis.



From Albert, Daniel M., Miller, Joan W., Azar, Dimitri T., and Blodi, Barbara A. (eds). 2008. Albert & Jakobiec's Principles and Practice of Ophthalmology, 3rd ed. Philadelphia: Copyright Elsevier 2008.

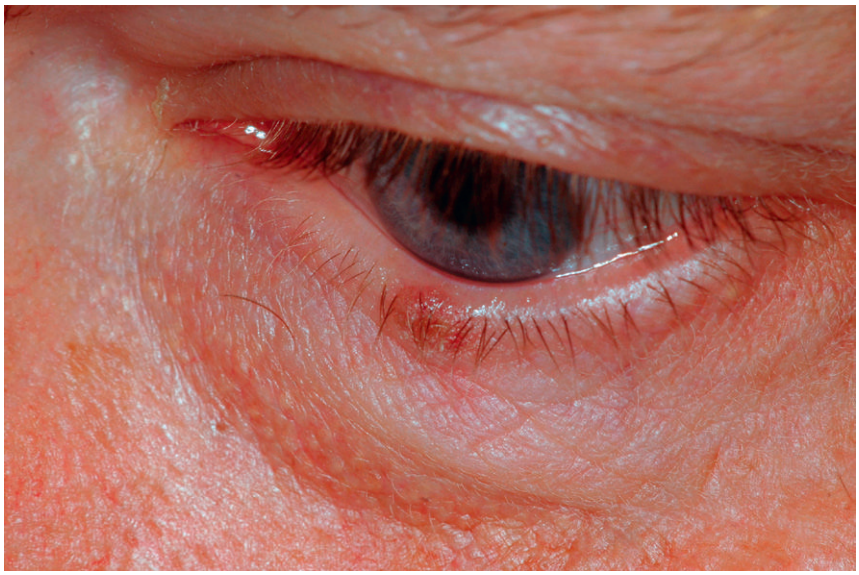
A 62-year-old man presented with a left lower eyelid lesion.



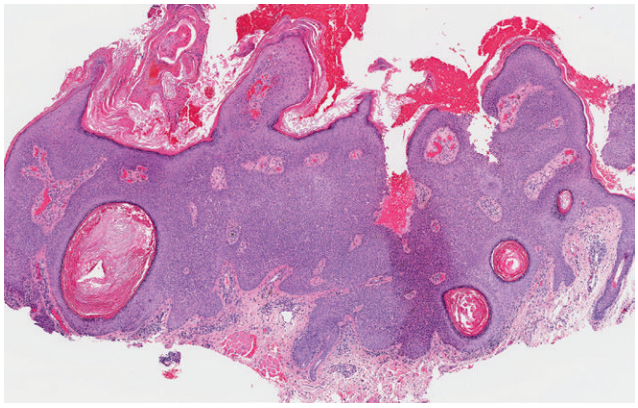
Diagnosis: Sebaceous cell adenoma.

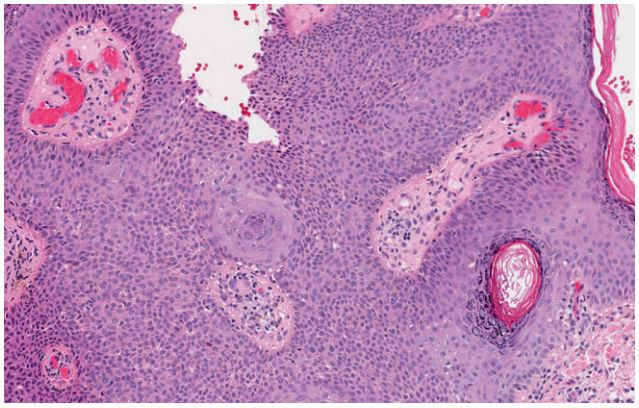
Clinical description: Clinical examination demonstrates a large cystic left lower eyelid lesion.

Histological description: Histopathology demonstrates skin with keratinized squamous epithelium. In the dermis, there are hyperplastic sebaceous glands forming multiple cavities containing proteinaceous material (asterisks). Sebaceous adenoma of the skin may be associated with Muir–Torre syndrome.



The patient is a 48-year-old man with a 3-month history of a left lower eyelid lesion. The clinical appearance is depicted above.

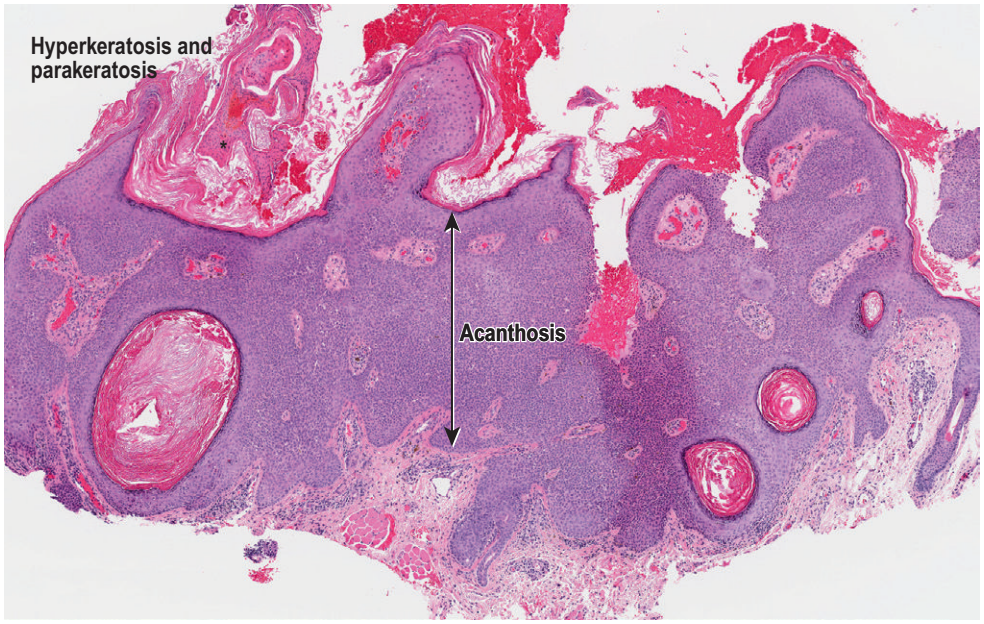


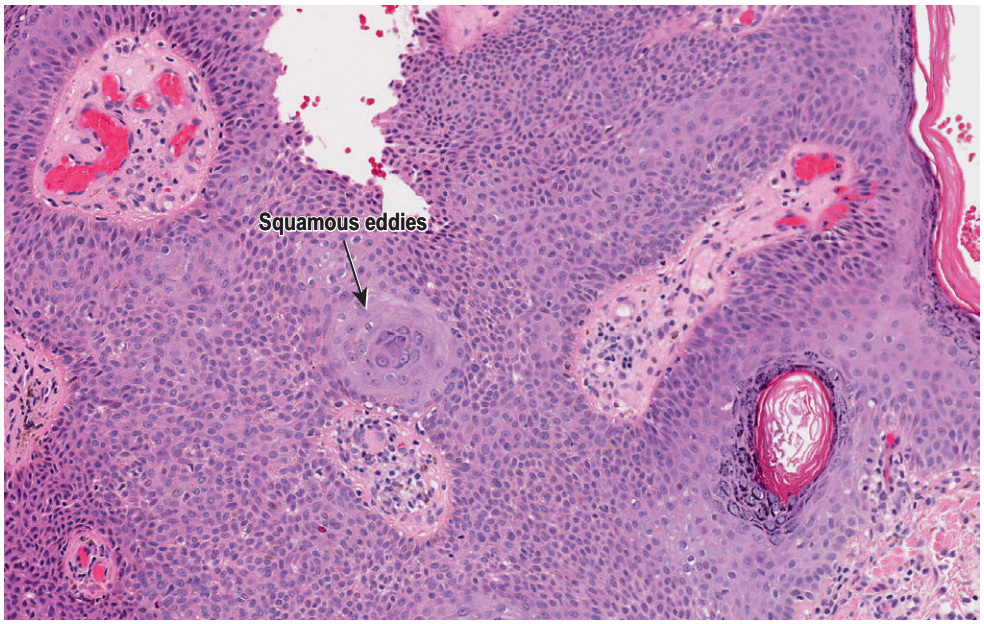


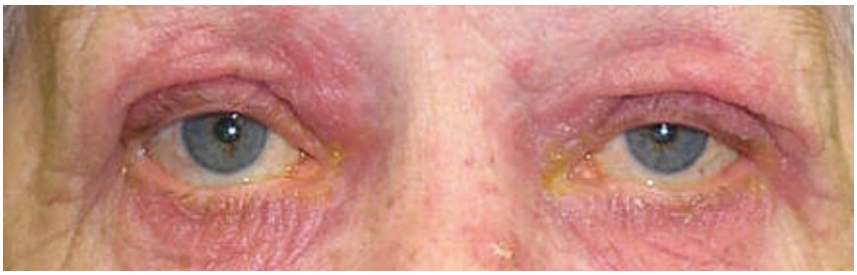
Diagnosis: Inverted follicular keratosis.

Clinical description: External examination reveals a keratinized left lower eyelid mass.

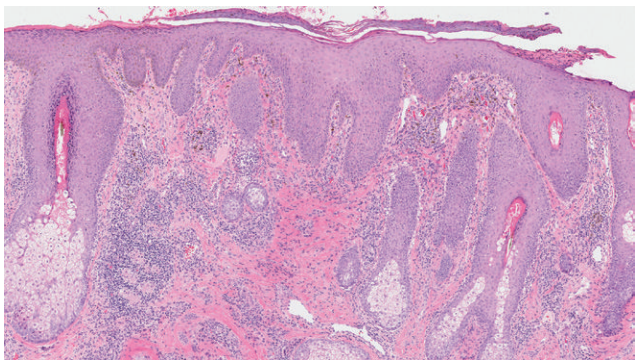
Histological description: The excised lesion demonstrates hyperkeratosis, parakeratosis, and acanthosis. The tissue has an overall inverted papillary pattern. Squamous eddies are seen.

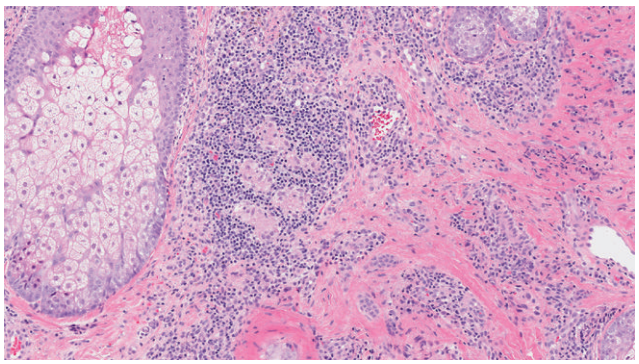






A 74-year-old woman presented with the skin changes seen above.

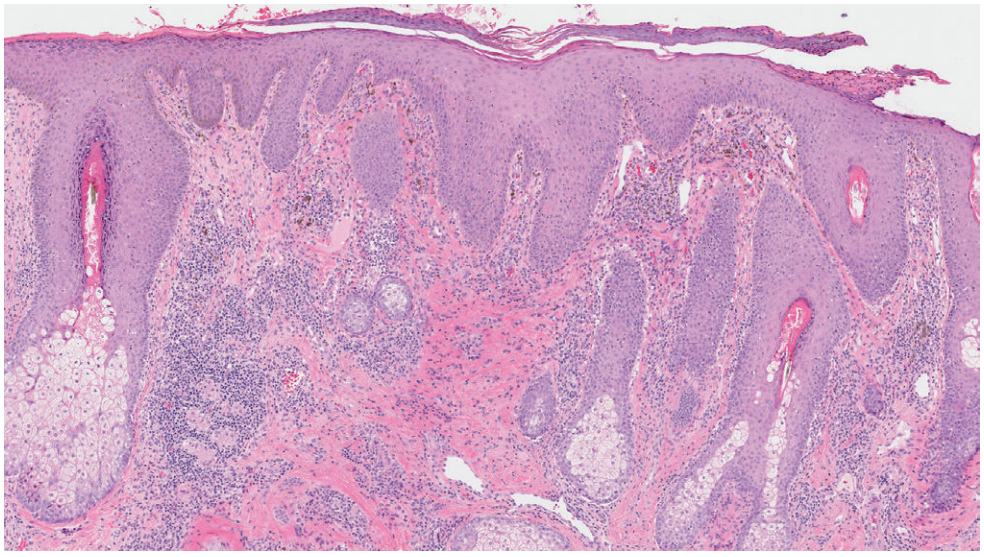


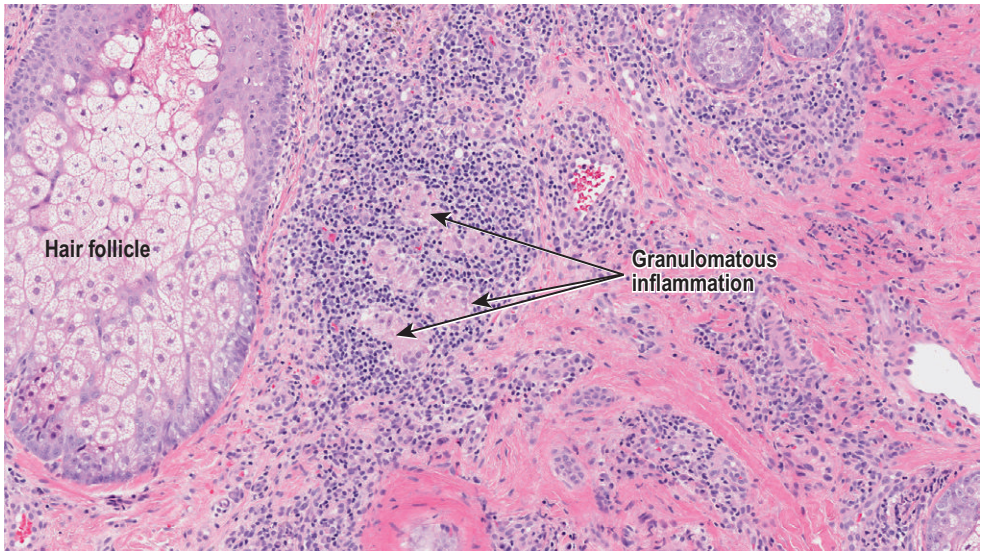


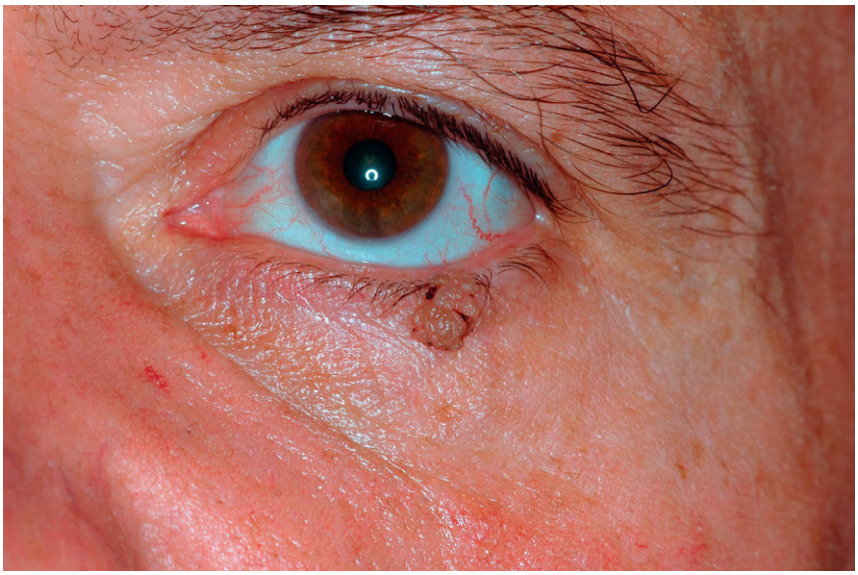
Diagnosis: Rosacea.

Clinical description: Facial and periocular erythema is noted.

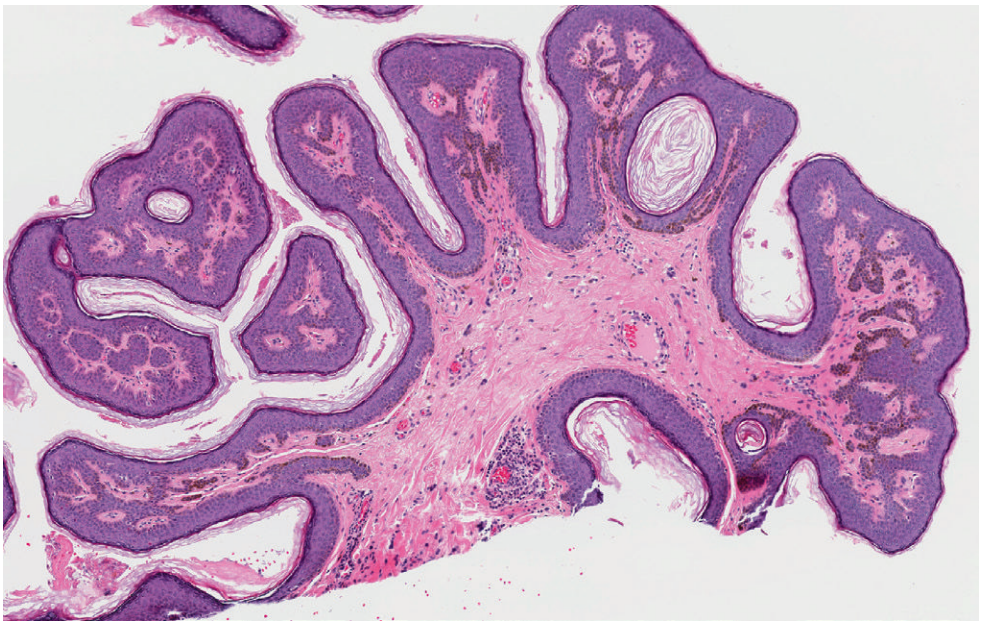
Histological description: Histopathology reveals keratinized, stratified squamous epithelium with acanthosis and focal parakeratosis. Granulomatous inflammation surrounding some of the hair follicles is present within the dermis.







A 57-year-old man presented with multiple pigmented lesions.



Diagnosis: Seborrheic keratosis (papillomatous).

Clinical description: Multiple brown skin tags in the left lower lid can be seen.

Histological description: Histopathology reveals tissue lined by keratinized stratified squamous epithelium with a few pilosebaceous units and focal basal epithelial pigmentation. There is hyperkeratosis and papillomatous acanthosis. Scattered pseudohorn cysts (asterisks) are also present. Focal areas of chronic inflammation are noted in the dermis.