

UNVEILING DIAGNOSTIC CHALLENGES: A CASE REPORT OF ATYPICAL CONJUNCTIVAL LESION MASQUERADING AS EPISCLERITIS

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ABSTRACT

A common presenting chief complaint for the practicing ophthalmologist is red eye, which can stem from various causes such as infections, corneal abrasions, or conjunctival lesions. The approach to conjunctival lesions specifically can be a challenge for ophthalmologists when the presenting symptoms are nonspecific, requiring a tailored approach for diagnosis and treatment to limit adverse outcomes. We report a case of an atypical conjunctival lesion that initially showed symptoms resembling episcleritis/scleritis but was refractive to conventional therapies. The lesion was later determined to be inflammatory conjunctival tissue based on biopsy findings. A 28-year-old man presented with foreign body sensation in his right eye due to a laterally placed atypical conjunctival lesion. The lesion, with clear borders, caused pain and redness, but visual acuity remained 20/20 OU. Initially the lesion was refractory to topical steroids and high dose oral NSAIDs. An initial biopsy was taken which showed conjunctival mucosa with ulceration associated with focal squamous metaplasia, mild acute inflammation, and subepithelial neovascularization and chronic inflammation. The lesion was then resected. There was no atypia or malignancy noted. Testing ruled out HSV and fungal infection. Two weeks after medical management, a recurrent nodule formed on the initial biopsy site which warranted a second biopsy and resection. The patient was started on Moxifloxacin and Pred Forte QID. At follow up, the second biopsy site showed nonspecific inflammation, indicating the body's self-regulatory and healing mechanisms responding to the biopsy procedure. The site healed well and showed no recurrent nodule. The patient stated he did not have any discomfort after the biopsy and visual acuity remained 20/20 OU. Moxifloxacin was discontinued and Pred Forte was decreased to TID for 1 week. The patient was instructed to refrain from contact use until inflammation subsides. There was no need for any further systemic bloodwork unless recurrence, a new lesion, or other systemic symptoms developed.

INTRODUCTION

The conjunctiva is a mucosal layer that surrounds the outer portion of the eye. It begins at the limbus and folds around the inner eye lid, functionally providing a protective barrier to the layers beneath it and allowing for the eyelids to smoothly glide over the surface. When this layer of the eye becomes irritated, it can become erythematous and inflamed, otherwise known as red eye. This is a common presenting complaint for many patients in an ophthalmology office and can prove to be difficult to manage considering the many different causes of red eye including infection, corneal abrasion, or conjunctival lesions. The approach to conjunctival lesions specifically can be a challenge for ophthalmologists when the presenting symptoms are nonspecific, requiring a tailored approach for diagnosis and treatment to limit adverse outcomes. Here we outline a case of an atypical conjunctival lesion that initially presented similarly to episcleritis/scleritis but was refractive to conventional therapies. After a thorough examination and biopsy, the lesion showed to have inflammatory conjunctival tissue. After this determination, our approach in management was revised and proper therapeutic measures were taken.

TREATMENT COURSE



Figure 1. Initial Presentation

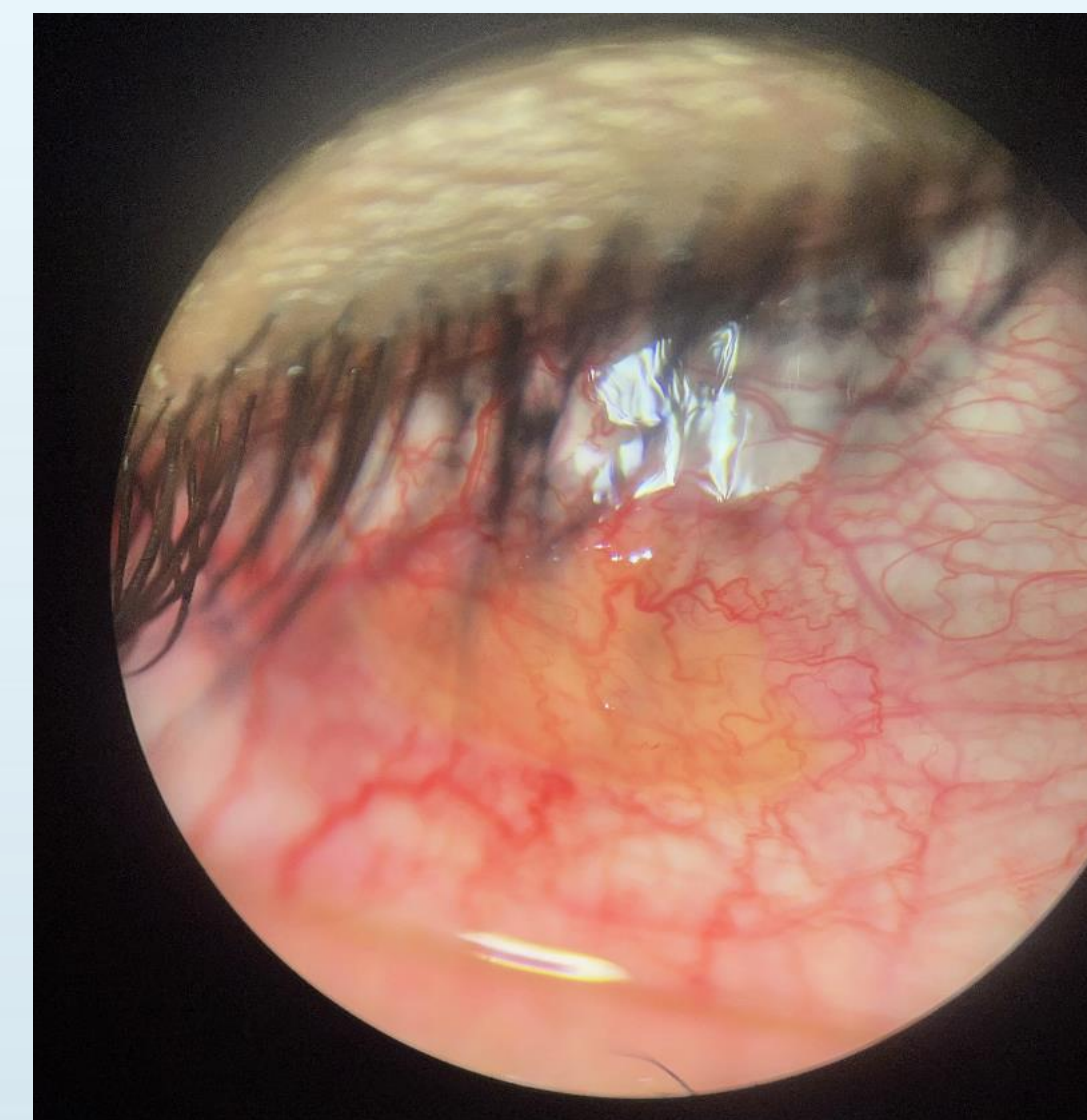


Figure 2. Two weeks post medical management

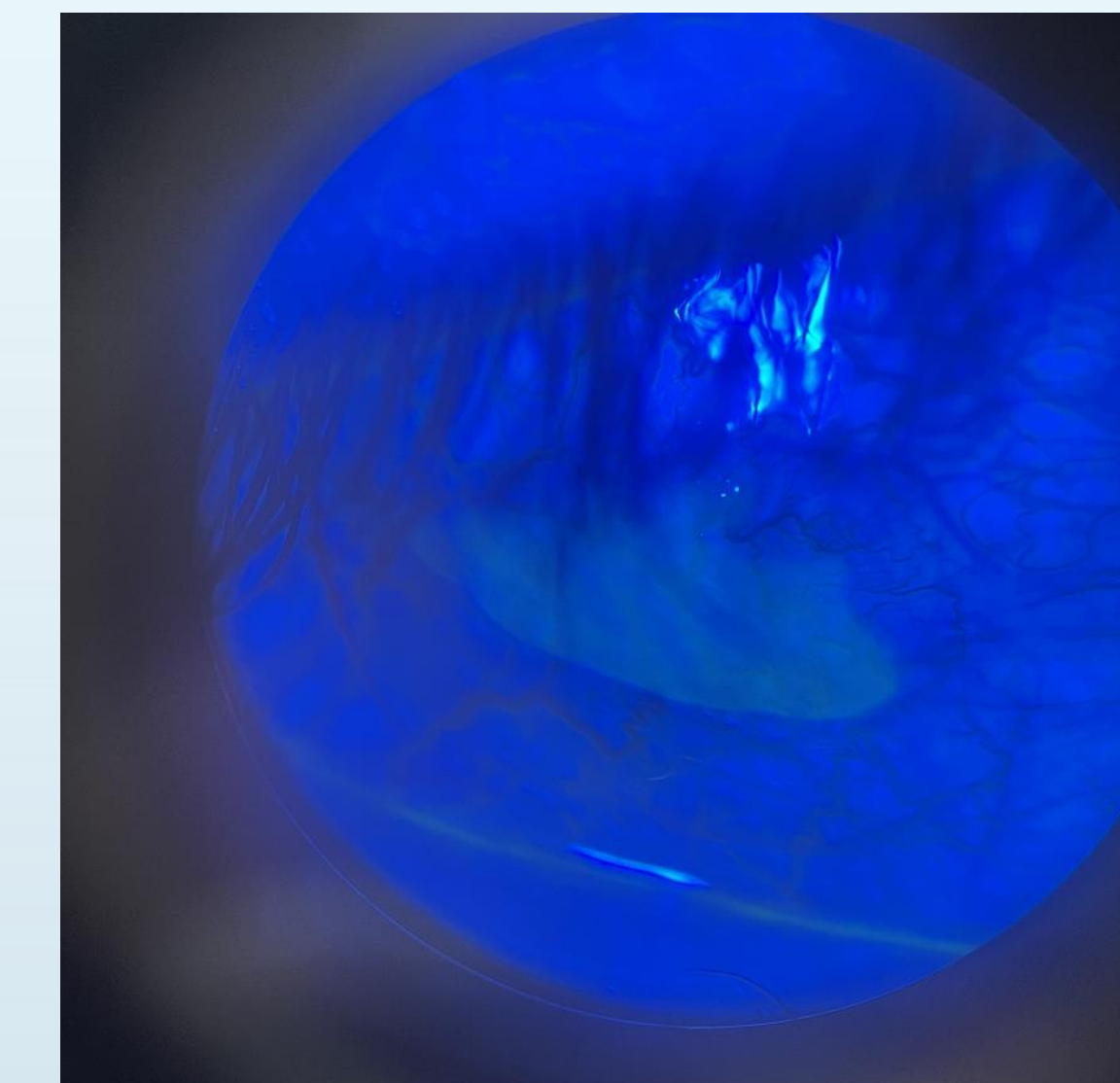


Figure 3. Two weeks post medical management (stained with fluorescein)



Figure 4. Two weeks post medical management

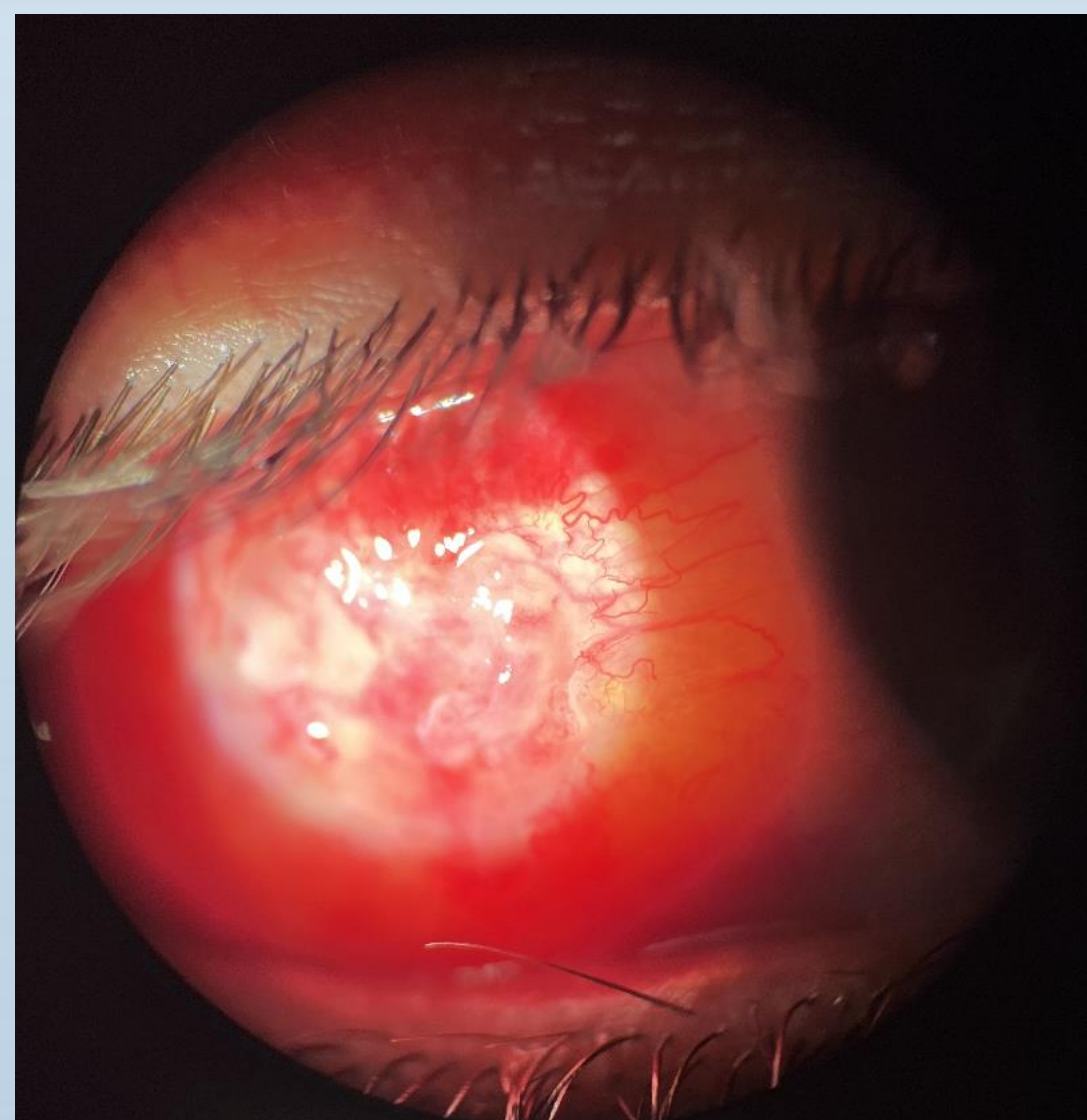
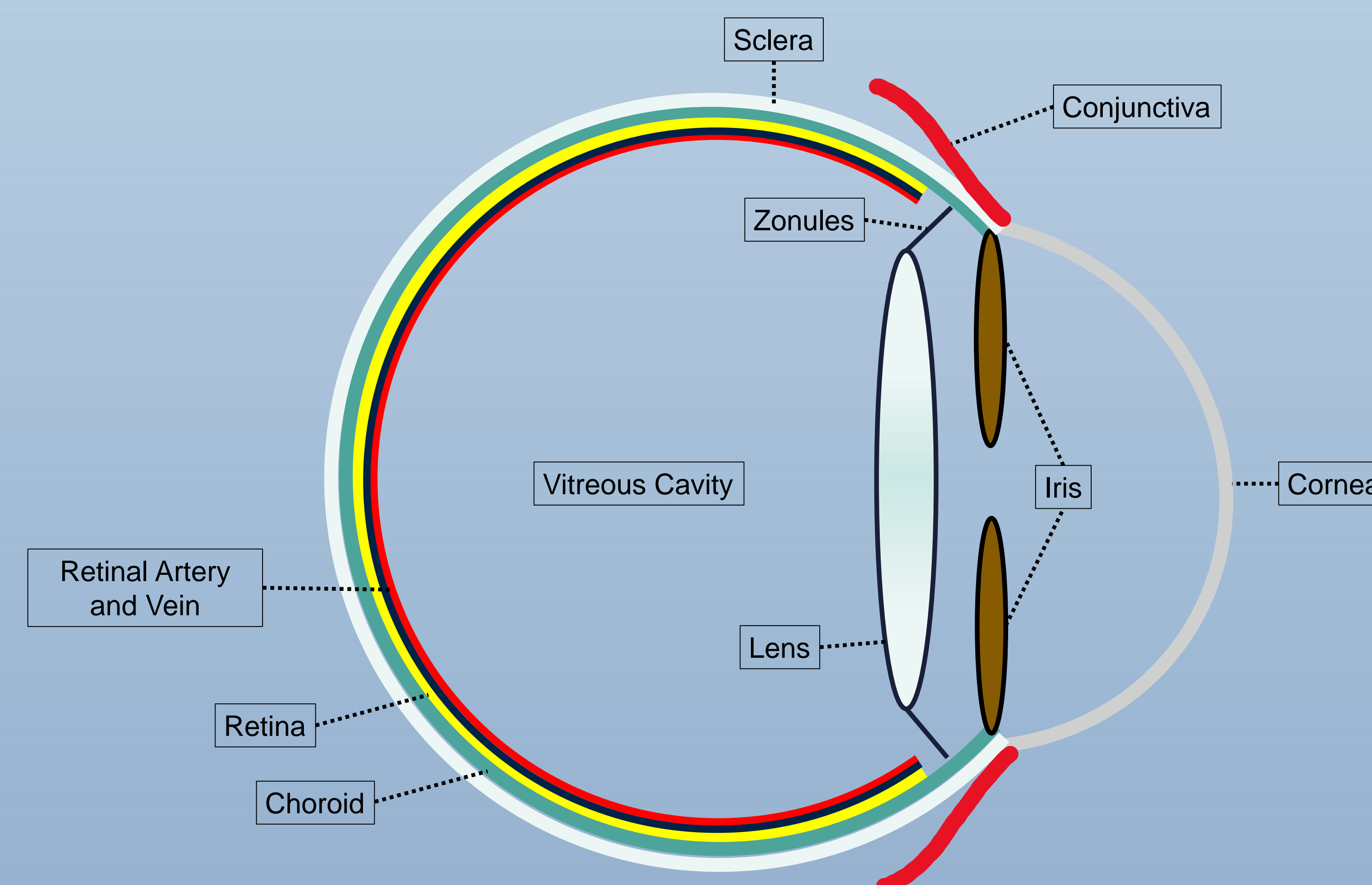


Figure 5. Two to five weeks after initial resection



Figure 6. Three months after resection



CASE DESCRIPTION

A 28-year-old man presented initially to the ophthalmology clinic with a complaint of a foreign body sensation in his right eye, which worsened after removing his expired contact lenses. He experienced pain and redness in the right lateral eye without changes in vision, flashes of light, floaters, or systemic symptoms. Despite starting TobraDex TID, there was minimal relief. His visual acuity remained 20/20 OU, with pressures at 12 OD and 12 OS. Pupils were reactive, visual fields intact, and extraocular movements normal.

On slit lamp examination, an elevated, de-epithelialized lesion on the right lateral conjunctiva was noted, stained with fluorescein and non-blanching with phenylephrine. The left eye was unremarkable. Treatment included ibuprofen 800 mg TID, Alrex TID OD, moxifloxacin TID OD, and erythromycin ointment. A biopsy on day 10 showed conjunctival mucosa with ulceration associated with focal squamous metaplasia, mild acute inflammation, subepithelial neovascularization, and chronic inflammation without malignancy or atypia. There was no HSV on immunohistochemistry. The biopsy did not stain for silver or PAS. There were no fungal organisms identified either. A recurrent nodule found one week after the initial biopsy required a secondary biopsy, revealing granulation tissue and acute and chronic inflammation. Moxifloxacin was discontinued and PF was decreased to TID for 1 week. Subsequent follow-ups showed healing without recurrence. Systemic bloodwork was deferred unless new systemic symptoms emerged.

DISCUSSION

Although the cause of the conjunctival lesion remains unclear, this case highlights the significance of conducting a thorough work-up and evaluation for atypical presentations. There are subtle distinctions between this patient's presenting complaint and other common red eye presentations, such as episcleritis, which is a benign inflammation of the episcleral layer of the eye.

This case also underscores the importance of the body's self-regulatory mechanisms following invasive procedures, such as a biopsy. The recurrence of the nodule after the initial biopsy necessitated a secondary biopsy to rule out malignancy or atypia. Interestingly, the biopsy site exhibited nonspecific inflammation, indicating the body's inherent self-regulation and healing processes. This analysis provides valuable insights into the management of atypical conjunctival lesions and underscores the need for further studies to outline optimal treatment strategies for this complicated condition.

REFERENCES



Conjunctival Epithelium Neoplasms



The Eyes Have It



Conjunctival Lesions in Adults: A Clinical and Histopathologic Review