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The ocular and periocular involvement of psoriasis

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Abstract

Ocular manifestations of psoriasis are generally underrepresented in the literature and can often be missed by clinicians. Appreciation of eye involvement in psoriasis is especially important for dermatologists and ophthalmologists who may be closely involved with treating afflicted patients. Depending on the involved site and severity of the condition, signs and symptoms of ocular psoriasis can vary from asymptomatic erythema to debilitating scarring and vision loss. Treatment is critical to prevent disease progression and to improve the quality of life for these patients. We discuss the various clinical manifestations and treatment options for ocular complications in patients with psoriasis, including specific circumstances that should trigger immediate referral to our ophthalmology colleagues.

Introduction

Psoriasis is a chronic, immune-mediated systemic disease that is characterized by well-circumscribed, red, thick, and scaly plaques. It is estimated to affect 1% to 3% of the adult population and contributes to a poor quality of life,¹ with one study showing that 79% of patients with psoriasis find the disease to have a negative effect on their lives.² Although the most common manifestation of psoriasis involves the skin, it has many other

extracutaneous manifestations, including in the nails, joints, and eyes. Eye involvement has been cited to occur in 10% to 12% of patients with psoriasis based on older publications,^{3, 4, 5, 6} although these figures likely underestimate the true prevalence because ocular complications often have not been as readily recognized by clinicians. In fact, more recent studies show higher rates of ocular complications; one report found ocular manifestations in 58% of patients with psoriasis compared with 25% of controls,⁷ whereas another study found 67% had one ophthalmic abnormality and 20% had more than one.⁸

Ocular manifestations of psoriasis can involve almost any structure of the eye, including the lid, conjunctiva, cornea, lacrimal gland, and uvea. The most common clinical manifestations of ocular psoriasis include keratoconjunctivitis sicca (dry eye syndrome) and blepharitis, although other complications, such as chronic conjunctivitis, uveitis, corneal lesions, and cataracts, can also occur. Early detection and treatment of these ocular complications is important given their associated morbidity, including risk of vision loss. Eye involvement may be subtle and thus easily missed without a thorough examination and attention to signs and symptoms of ocular complications in these patients. Appreciation of the ocular complications of psoriasis is especially important for dermatologists and ophthalmologists who may be closely involved with treating patients with psoriasis. This review discusses the various clinical manifestations and treatment options for ocular complications in patients with psoriasis.

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Section snippets

Pathogenesis and clinical manifestations

Psoriasis is an immune-mediated inflammatory disease with unknown etiology that may be related to a defect in proliferation of keratinocytes associated with inflammatory cell infiltration, including T-lymphocytes, macrophages, and neutrophils.⁹ Although the pathogenesis of ocular involvement in psoriasis is unknown, proposed mechanisms include direct involvement of psoriatic plaques, psoriasis-associated immune processes, and/or complications of psoriasis treatments.¹⁰ ...

Eyelids

Clinical findings of eyelid involvement include ocular discomfort, crusting, or flaking on the eyelashes, swelling of the eyelids, redness of the eyes, visual disturbances, or psoriatic lesions found on the lids or lid margins.¹⁰ Patients may also describe an itching or burning sensation along with tearing.^{1,10,11}

Blepharitis has been found to be the most prevalent ocular disease in patients with psoriasis. It is an inflammatory condition whose mechanism is unknown in psoriasis. The proposed ...

Conjunctiva

Chronic nonspecific conjunctivitis is the most common form of conjunctivitis among patients with psoriasis,^{4,18} and it can occur with or without lesions on the margin of the eyelid. The prevalence of conjunctivitis in patients with psoriasis may be as high as 65%.^{1,19} Clinical manifestations of conjunctivitis include redness, tearing, or thick yellow discharge.^{6,20} Conjunctival lesions include well-demarcated, yellowish-red lesions on the palpebral conjunctiva or xerotic-appearing lesions on ...

Cornea

Corneal involvement in psoriasis is rare and likely secondary to eyelid or conjunctival complications including dry eye disease and trichiasis.^{3,21} The incidence of dry eye in patients with psoriasis has been variably reported in the literature. This symptom is important because it can be the initial presenting symptom of ocular psoriasis.²² Dry eye has been reported in approximately 1 in 5 patients with psoriasis (about 18% to 20%).^{20,23} In patients with psoriasis who have corneal involvement, ...

Uvea

Although rare, uveitis is a potentially serious ocular complication that can occur in patients with psoriasis. Psoriasis and uveitis share common components in their pathogenesis, with a significant role for several cytokines including tumor necrosis factor α (TNF- α), interleukin 17 (IL-17), IL-23, and IL-6. Anterior uveitis, which affects the iris and/or ciliary body, may occur in 7% to 25% of patients with psoriasis. Clinical manifestations of anterior uveitis include progressive periocular ...

Lens

Lens involvement in patients with psoriasis is thought to be an incidental finding, although some studies suggest that patients with psoriasis may be at increased risk of

developing cataracts.^{10,27,28} Signs and symptoms of cataract formation include a gradual decline in vision, decreased contrast sensitivity, glare or halos around lights (particularly at night), absent or diminished red reflexes, and cloudy lenses visualized on ophthalmic examination. Additionally, treatment for psoriasis ...

Management and treatment of ocular involvement in psoriasis

Early detection and treatment of ocular manifestations in patients with psoriasis can limit morbidity and improve quality of life and overall management of this systemic disease. Therapy is often directed at symptomatic management and control. Because almost any portion of the eye can be affected, the following sections will discuss treatment options for each site. ...

Eyelids

Treatment of blepharitis is generally supportive with emphasis on lid hygiene. This treatment includes warm compresses, eyelid massages, and lid scrubs with specific eyelid cleansers as important mainstays of therapy. Emulsion lubricant eye drops are used to stabilize the tear film. There are also treatments that may be performed in the ophthalmologist's office based on the type of blepharitis and diagnostic findings, slit lamp biomicroscopy, and meibomian gland imaging. These treatments ...

Conjunctiva

For nonspecific bilateral conjunctivitis that presents without symptoms of photophobia or discharge, symptomatic treatment with artificial tears and ophthalmic lubricant ointment (over-the-counter eye lubricant or erythromycin ophthalmic ointment) can be beneficial. For chronic cases, a non-urgent ophthalmology consultation will be helpful, especially if there is evidence of xerosis, symblepharon, trichiasis, or corneal/conjunctival lesions.¹⁰ Prompt diagnosis will also help to avoid “a futile ...

Cornea

As discussed previously, corneal involvement in psoriasis is rare and generally secondary to processes such as xerosis or trichiasis.¹⁰ If the cornea is involved, symptoms including pain, photophobia, and vision changes may be present, which requires urgent ophthalmic consultation. Dry eye disease and trichiasis may lead to epithelial erosions of the cornea. The cornea is an avascular tissue, and with the loss of the corneal epithelial barrier, corneal infection can occur. This infection can ...

Uvea

When the uvea is affected in psoriatic patients, an immediate referral to ophthalmology is warranted given the complexity of treatment and potential for complications. Ophthalmologists generally use a stepwise approach in the treatment of uveitis depending on the location of the inflammation. For those with anterior uveitis, topical corticosteroids are the first-line therapy with close followup and slow taper of the medication to prevent recurrence. Some patients with anterior involvement may ...

Lens

For patients on long-term high-dose corticosteroids for eye or cutaneous involvement, routine referral to the ophthalmologist for evaluation of cataract formation is recommended. Many of the intraocular psoriatic conditions treated with topical steroids carry low risk of cataract development, especially when used only in the acute setting. Coordination of care with the ophthalmologist is of critical importance in patients with ocular psoriasis to provide the most optimal of care and to help ...

Conclusions

Psoriasis has known extracutaneous manifestations including the nails and joints, but ophthalmic complications of psoriasis have remained less appreciated because they can be clinically subtle. Psoriasis can affect almost any structure of the eye; however, the most common manifestations include conjunctivitis, keratoconjunctivitis sicca, and blepharitis. Uveitis is less common among this population, but it is a potentially serious ocular complication that can lead to vision loss. Although some ...

Declaration of Competing Interest

The authors declare no conflicts of interest. ...

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References (32)

F Hamideh *et al.*

[Ophthalmologic manifestations of rheumatic diseases](#)

Semin Arthritis Rheum (2001)