Review Article

Ophthalmic manifestations of psoriasis

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Abstract

Psoriasis is a common chronic inflammatory and proliferative condition of the skin associated with systemic manifestations. The relationship between the eye and psoriasis has been recognized for decades, but the precise eye manifestations in patients with psoriasis and psoriatic arthritis are only recently coming to light. Ocular involvement occurs in 10% of patients with psoriasis. Ophthalmic manifestations include blepharitis, dry eye , meibomian gland dysfunction, nonspecific conjunctivitis, punctate keratitis, corneal recurrent erosions, vascularisation, ulceration, scarring and even melting . Anterior uveitis is another psoriasis associated manifestation involving 7% to 25% of patients with psoriatic arthritis. Retinal vasculitis, cystoid macular edema, and papillitis are other uncommon changes seen. Various topical and systemic therapies used to treat psoriasis too can affect eyes,which includes conjunctiva hyperaemia, dry eye, blepharitis, blepharoconjunctivitis, keratitis, corneal opacities, cataract, and deceased night vision.

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Introduction

Psoriasis is a common chronic inflammatory and proliferative condition of the skin associated with systemic manifestations in many organ systems. The reported prevalence of psoriasis in countries ranges between 0.09% and 11.4% among all ages, both genders and all populations making psoriasis a serious global problem.[1,2] Approximately 75% patients present before the age of 40 years (peak at 20-30 years) and the other peak occurs at 57-60 years. The prevalence is between 1.5 and 5% in most developed countries.[3] In India, the reported prevalence is between 0.44 and 2.8%.[4] Clinically, cutaneous disease presents in non-pustular or pustular forms with each having its own variants (Table 1).

Well-demarcated erythematous and indurated papulo-plaques with loose silvery scales are hallmark clinical features of chronic plaque psoriasis or psoriasis vulgaris, the commonest variant. Mucosal changes are rare and nail involvement occurs in 25%–50% of all cases while

Table 1: Clinical variants of psoriasis

Non pustular psoriasis	*Pustular psoriasis*
Psoriasis vulgaris-early or late	*Localised pustular psoriasis*
onset	*Palmoplanterpustulosis*
Guttate psoriasis	*Acrodermatitis continua of hallopeau*
Rupoid psoriasis	*Generalised pustular psoriasis*
Elephantine and ostraceuous psoriasis	*Acute pustular psoriasis of von-Zumbusch*
Unstable psoriasis	*Impetigo herpetiformis*
Psoriatic erythroderma	*Infantile and juvenile forms Circinate form*

the prevalence of inflammatory arthritis among psoriasis patients varies between 7% and 26% and in about 15% of them arthritis remains undiagnosed.[5]

Ocular involvement occurs in 10% of patients with psoriasis especially in presence of psoriatic arthritis and may even precede articular changes.[6,7] Psoriasis can affect eyes directly or as complication of treatment for psoriasis. Blepharitis and dry eye are the commonest ocular finding.[8] It is thought to be triggered by Meibomian duct occlusion by psoriatic scale, as well as an underlying lower tear film break-up time in patients with psoriasis.[9] Erythema, edema, and psoriatic plaques around the eyes can result in madarosis, cicatricial ectropion, trichiasis, loss of lid tissue and obstructive type of meibomian gland dysfunction.[10] It can be difficult to discern from non-specific eyelid dermatitis, which has been reported in up to 7% of psoriasis patients. Patients with pustular psoriasis may have sterile pustules and lid swelling.[11] Psoriatic plaques over lids can extend to involve conjunctiva. A chronic nonspecific conjunctivitis may occur which can lead to symblepharon and keratoconjunctivitis sicca. An older study suggests that it may occur in up to 64.5% patients with skin disease.[12] Dry eye has been reported in up to 18.75% of patients with psoriasis [13] and 2.7% of psoriatic arthritis patients.[14] Demarcated, yellowish-red plaques on the palpebral conjunctiva, limbal lesions resembling phlyctenules and episcleritis can occur.[15,16] Corneal involvement may include punctate keratitis, filaments, epithelial thickening, recurrent erosions, vascularisation, ulceration, scarring and even melting can occur especially in the periphery. Involvement tends to be bilateral and close to the limbus. Histologic evaluation of the thickened corneal opacities reveals parakeratosis analogous to the findings noted in skin psoriasis.[17]

Anterior uveitis is another psoriasis associated manifestation involving 7% to 25% of patients with psoriatic arthritis. It seems that psoriasis without arthropathy is not a risk factor for the development of uveitis. Uveitis tends to develop more frequently in patients with arthropathy or pustular

psoriasis than in patients with other forms of psoriasis.[18] Although uveitis has been reported in psoriatic patients without arthritis, it tends to be bilateral, prolonged and more severe in patients with psoriatic arthritis. Retinal vasculitis, cystoid macular edema, and papillitis are other uncommon changes seen.

Various topical and systemic therapies used to treat psoriasis too can affect eyes in these patients. While corticosteroids and phototherapy, with or without psoralens, the commonly used treatment modalities in psoriasis, can cause conjunctiva hyperaemia, dry eye and early cataract, treatment with oral retinoids may lead to blepharitis, blepharoconjunctivitis, keratitis, corneal opacities, dry eyes, cataract, and decrease dnight vision. [19,20,21]

Conclusion

Ocular manifestations in psoriasis are often considered less common as they largely remain under reported in the literature and surveys for the quality of life implications of psoriasis generally do not address ocular symptoms. Another possible reason could be that ocular manifestations of psoriasis are too subtle and missed for want of a dedicated ophthalmic examination.

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