

Original Research

Evaluation of Ocular Manifestations of Psoriasis Patients

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Abstract

Background: This study was conducted to assess ocular manifestations of psoriasis patients

Material and methods: This study comprised of 20 subjects who had psoriasis. The aim of this study was to assess the ocular findings in these subjects. The subjects had been explained about the procedure and were asked for consent. All the subjects gave consent and were included in this study. The demographic details, the incidence of ocular findings and the type of ocular manifestation had been investigated and the results were tabulated. Statistical analysis had been performed using SPSS software.

Results: In this study, out of 20 subjects with psoriasis, 11 subjects showed ocular manifestations. Among the 11 subjects with ocular manifestations, 4 were males and 7 were females. The most common ocular finding in subjects with psoriasis was dry eyes accounting for 5 cases. Other findings were anterior blepharitis, accounting for 1 case; blurred vision, accounting for 3 instances and tarsal hyperemia accounting for 2 cases.

Conclusion: From the findings of this study, it can be concluded that out of 20 cases with psoriasis, 11 subjects showed ocular manifestations, of which the most common finding was dry eyes. Other findings included blurred vision, anterior blepharitis and tarsal hyperemia.

Keywords: Psoriasis, Ocular manifestations

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Introduction

Psoriasis is a chronic inflammatory condition driven by immune mechanisms, primarily affecting the skin. The lesions typically manifest as erythematous plaques resulting from the excessive proliferation of the epidermis.^{1,2}

Ocular disorders associated with psoriasis are often nonspecific and asymptomatic, frequently identified at a later stage, which poses a risk of considerable ocular morbidity. The reported incidence of ocular involvement ranges from 10% to 58%, according to various studies.³

Ocular features may arise from direct involvement of the eyes by psoriatic plaques, immune-mediated inflammatory processes related to psoriasis, or complications stemming from psoriasis treatments.^{4,5} Common ocular manifestations include uveitis, dry eyes, blepharitis, conjunctivitis, keratitis, ultraviolet (UV)-induced cataracts, and retinal pathologies.

Among these, blepharitis is noted as the most prevalent ocular condition in patients with psoriasis. Additional findings include dry eye, conjunctivitis, hyperemic conjunctiva, cicatricial entropion, and ectropion resulting from chronic blepharitis. Instances of bilateral cataracts not associated with prior steroid use have also been documented. Uveitis is particularly prevalent in individuals with psoriatic arthritis, with acute anterior uveitis being the most frequently observed presentation.^{5,6}

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Material and methods

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included in this study. The demographic details, the incidence of ocular findings and the type of ocular manifestation had been investigated and the results

were tabulated. Statistical analysis had been performed using SPSS software.

Results

Table 1: Prevalence of ocular findings in patients with psoriasis

Prevalence	Number of cases	Percentage
Absent	09	45
Present	11	55
Total	20	100

In this study, out of 20 subjects with psoriasis, 11 subjects showed ocular manifestations.

Table 2: Gender-wise distribution of subjects with ocular manifestations

Gender	Number of cases	Percentage
Males	04	36.36
Females	07	63.64
Total	11	100

Among the 11 subjects with ocular manifestations, 4 were males and 7 were females.

Table 3: Type of ocular manifestation

Type of ocular manifestation	Number of cases	Percentage
Anterior Blepharitis	01	9.09
Blurred vision	03	27.28
Dry eye	05	45.45
Tarsal Hyperemia	02	18.18
Total	11	100

The most common ocular finding in subjects with psoriasis was dry eyes accounting for 5 cases. Other findings were anterior blepharitis, accounting for 1 case; blurred vision, accounting for 3 instances and tarsal hyperemia accounting for 2 cases.

Discussion

Ocular alterations in individuals with psoriasis are regarded as a result of systemic inflammation and heightened cytokine production; nevertheless, these changes are frequently neglected, despite the potential for progression leading to visual impairment. Alterations in the tear film, conjunctival surface, or disruption of the meibomian glands are prevalent among psoriasis patients.^{7,8}

Furthermore, while psoriasis itself is a primary causative factor, existing treatment modalities, such as methotrexate and acitretin (the sole licensed medication for generalized pustular psoriasis), may inflict ocular harm.⁹ During phototherapy, a valuable and economical treatment for psoriasis, UVA radiation can penetrate the ocular lens, possibly leading to cataract formation.¹⁰

Additionally, biological treatments, including anti-TNF α agents, may provoke ocular symptoms, particularly uveitis, in those afflicted with psoriasis. Since 1988, it has been established that retinoid treatments, such as isotretinoin, impact nearly all anatomical components of the eye, with significant damage often noted in the optic nerve, retina, or lens.¹⁰

This study was conducted to assess ocular manifestations of psoriasis patients

In this study, out of 20 subjects with psoriasis, 11 subjects showed ocular manifestations. Among the 11 subjects with ocular manifestations, 4 were males and 7 were females. The most common ocular finding in subjects with psoriasis was dry eyes accounting for 5 cases. Other findings were anterior blepharitis, accounting for 1 case; blurred vision, accounting for 3 instances and tarsal hyperemia accounting for 2 cases. Kharolia A et al¹¹ evaluated various ocular changes associated with moderate-to-severe psoriasis. In this prospective cohort study, treatment-naïve psoriasis patients with Psoriasis Area Severity Index (PASI) score of more than 10 were included. The Ocular Surface Disease Index (OSDI) score, Schirmer's score, tear film breakup time (TBUT), corneal and conjunctival staining score, and meibomian gland dysfunction score were noted. All these parameters were re-evaluated at 8 weeks of follow-up after systemic treatment. Sixty-eight patients were enrolled in the study. The most common ocular pathologies observed in this study were tarsal hyperemia and anterior blepharitis in 128 (94.1%) and 64 (47%) eyes, respectively. Mild, moderate, and severe dry eyes were seen in 26 (19.1%), 14 (10.2%), and 34 (25%) eyes, respectively. Thirty-nine (57.3%) patients complained of significant difficulty watching television or digital screen. In 21 patients evaluated on follow-up at 8 weeks, cornea and conjunctiva's ocular surface staining score increased and TBUT decreased significantly. The most common ocular pathologies observed in this study were anterior blepharitis and moderate dry eye, which significantly affected most patients' daily routines. Screening patients with

greater severity of psoriasis would help in early management of such problems.

Maitray A et al¹² assessed the frequency of ocular manifestations in patients with psoriasis. Complete ophthalmic examination was performed in 75 patients >18 years of age, diagnosed with Psoriasis, Attending M.S. Ramaiah Hospital Bangalore, between November 2012 - May 2014. Among 75 cases of Psoriasis 53 patients had ocular manifestations. 29(39%) patients had cataract/ pseudophakia. 28(39%) patients had dry eyes, 18(24%) patients had blepharitis. Chronic conjunctivitis was seen in 6(8%) patients and acute anterior uveitis in 2(2.6%) patients. Ocular manifestations were more common in patients with PASI score >10 when compared to patients with PASI score ≤10 (p value is 0.009). There is no statistical significance between duration of disease and ocular manifestations of psoriasis (p value is 0.19). The prevalence of dry eyes was higher among the patients with higher PASI score (p value is 0.001). Ocular manifestations are a significant part of the Psoriasis manifestations. Therefore, routine eye examinations are recommended in psoriasis patients of all types, to screen for common associated ophthalmic conditions including dry eyes, blepharitis, conjunctivitis and uveitis during their regular follow-up visits with their dermatologist.

Conclusion

From the findings of this study, it can be concluded that out of 20 cases with psoriasis, 11 subjects showed ocular manifestations, of which the most common finding was dry eyes. Other findings included blurred vision, anterior blepharitis and tarsal hyperemia.

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