

OCULAR MANIFESTATIONS IN PSORIASIS

Ophthalmology

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Abstract:

Background-psoriasis is a chronic remittent and relapsing illness, almost 10% of the psoriatic population are affected with one or other ocular manifestations, which occur much later than skin involvement, hence they are not given due importance.

Aims and objective: To assess the frequency of ocular manifestations in patients with psoriasis, study the various clinical presentations of psoriasis in the eye and to investigate possible relationships between the frequency of ocular involvement and patient age, sex, duration of illness since diagnosis, type of psoriasis and severity of the disease, and treatment received for psoriasis.

Methodology: Complete ophthalmic examination was performed in 75 patients >18 years of age, diagnosed with psoriasis, attending the Katuri medical college, Guntur between November 2013- May 2015.

Results: Among 75 cases psoriasis 53 patients had ocular manifestations. 29(39%) patients had cataract/psuedophakia, 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 <(p-value is 0.009). there is no statistical significance between duration of disease and ocular manifestations of psoriasis(p-value-0.19). the prevalence of dry eyes was higher among the patients with higher PASI score(p=0.001).

Conclusion: 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.

Keywords: Blepharitis, cataracts, dry eyes, PASI score, psoriasis, vulgaris, uveitis.

Introduction

Psoriasis affects 1-3% of the adult population with various extra cutaneous manifestations. Around 10 % of psoriasis patients have ocular manifestations.¹

Ophthalmic complications of psoriasis

are numerous and can affect almost any part of the eye. The ocular manifestations occur much later after the skin involvement. Consequences of ocular manifestations of psoriasis are often neglected in the general dermatological literature. Surveys into the quality of life implications of psoriasis mostly do not give importance to ocular

manifestations.²

The ocular manifestations of psoriasis are subtle, they can be overlooked without a dedicated examination or review of ocular system. So, if ophthalmic examinations could be carried out at regular intervals, and patients with psoriasis would be benefited. Commonest ocular manifestations are dry eyes and blepharitis. Others include pinguecula, pterygium, punctate keratitis, cataract, uveitis, glaucoma and retinal microvascular abnormalities.² The occurrence of uveitis in psoriasis and psoriatic arthritis has been quoted in multiple studies, in which one study quotes uveitis in three of seven patients with psoriasis.³⁻⁶

Studies and surveys relating to the dermatological quality of life implications of psoriasis generally do not directly address ocular symptoms. since there are not many studies relating psoriasis with ocular manifestations; we plan to undertake this study to address these issues.

Materials and Methods

This was a hospital based descriptive study .the study group consisted of 75 patients of psoriasis who presented to the outpatient department of dermatology in Katuri medical college from Nov 2013 to may 2015.the sample size was estimated by using the standard formula for estimating the proportion with absolute precision. The minimal sample size estimated for the study (seventy five) was based on the estimated percentage of prevalence of ocular manifestations in psoriasis. The minimal sample was estimated for 5% precision and 5% level of significance. Prior ethics committee clearance was obtained.

Patients more than 18 years of age with diagnosis of psoriasis and patients who have given valid consent were included in the study and the patient with diabetes mellitus and renal disease and the patients using contact lenses were excluded.

Procedure

Patient characteristics, age, gender, address, occupation, duration of disease, type of psoriasis area of skin involvement, past and current treatment, ocular symptoms were noted. Schirmer's-I, tear break up time and intraocular pressure were measured. PASI score calculated for every patient.

Results

75 psoriasis patients attending the psoriasis clinic in the department of dermatology, Katuri medical college between November 2013 to May 2015 confirming to the inclusion and exclusion criteria were included in the study and evaluated for ocular manifestations. Patient characteristics such as duration of disease, type of psoriasis, body surface area, disease severity as assessed by PASI score treatment, ocular symptoms, Schirmer's test, tear break up time, intraocular pressure and fundoscopy were studied.

Out of the psoriasis patients included in the study, 53 had ocular manifestations.

Patient characteristics

Age distribution

The mean age of the patients was 46.8 years, ranging from 18-68 years. Majority of the patients in the study were in the age group of 41-60 years.

Age Group	No of Patients with ocular manifestations	No of Patients without ocular manifestations	Total No of patients
(in years)			
0-20	1	1	2
21-40	10	9	19
41-60	30	10	40
61-80	12	2	14
>80	0	0	0

Disease characteristics

Duration of psoriasis

The mean duration of psoriasis in our study was 5.5. Majority of patients had disease duration of less than 5 years.

Duration Of Disease	Total No Of Patients with psoriasis	No Of Psoriasis Patients with ocular manifestations
(in years)		
<5 years	50	36(72%)
6-10 years	17	11(65%)
>10 years	8	6(75%)

Type of Psoriasis

Type Of Psoriasis	No of Psoriasis Patients	No of Psoriasis Patients With Ocular Manifestations
Plaque	65	47
Guttate	2	1
Erythrodermic	2	2
Pustular	2	1
psoriatic arthritis	4	2

Severity Of Psoriasis And Ocular Manifestations

PASI Score	Ocular Manifestations Present	Ocular Manifestations Absent	Total
<5	4	4	8
05-10	26	10	36
>10	23	8	31
Total	53	22	75

About 50% with less than 5 PASI score, 72% with 5-10 PASI score and 74% patients with more than 10 PASI score developed ocular manifestations. Ocular manifestations were more common in patients with PASI score >10 when compared to patients with PASI score <10 and this difference was statistically significant (p-value is 0.009) by fisher exact test).

Ocular manifestations

Out of 75 patients with psoriasis, 53 patients had ocular manifestations. Ocular manifestations such as cataract/psuedophakia (n=29), dryness (n=28), blepharitis (n=18), conjunctivitis (n=6) and uveitis (n=2) were observed in the study group, with the overlap of manifestations.

Ocular Manifestations	No. of Psoriasis Patients with Ocular Manifestation
Cataract/psuedophakia	29 (39%)
Dry eyes	28 (37%)
Blepharitis	18 (24%)
Chronic conjunctivitis	6 (8%)
Uveitis	2 (2.6%)

Cataract

Twenty six (51 eyes) of 75 psoriasis patients had cataract and 4 psoriasis patients (7 eyes) had psuedophakia.

Dry eyes

Twenty eight of 75 patients had dryness of eyes (schirmer's test - 1 <10mm or TBUT <10S), with the prevalence being higher among the patients with higher PASI score (>10) which was statistically significant (p-value-0.001 by fisher exact test).

Discussion

Psoriasis is a chronic inflammatory disorder which commonly manifests with various extra cutaneous manifestations of which eye involvement is important.

Studies done by Chandran et al² and Erbagci et al⁷ in Turkey had found prevalence of ocular manifestations in psoriasis to be 67% and 65% respectively, which were in congruence with the present study, which showed prevalence of 70%.

Wanscher et al⁸, in their study of 266 patients with mean age of 24.7 years, found that the incidence of cataract among psoriasis patients does not exceed the normal population; hence concluded saying routine eye examinations for cataract are not necessary for such patients. In our study, in the age group less than 40 years, 5.26% of patients with psoriasis had cataract. In the age group 40-60 years, 35% of patients had cataract. Hence it is essential to examine every patient with psoriasis with history of diminution of vision for presence of cataract.

Erbagci et al⁷ showed 65% prevalence of blepharitis in psoriasis patients, whereas in our study, it was found only in 24% of cases. The lesser prevalence of blepharitis in our study may be attributed to the immunosuppressive drugs.

Okamoto et al⁹ showed that the flare value was higher in the patients with PASI scores greater than 10, and in those older than 40 years in another study conducted by Okamoto et al¹⁰ in Japan, it was found that the aqueous flare value was higher in patients with longer duration of disease and higher in the patients with severe psoriasis (PASI score >10).

In our study we had observed that the ocular manifestations were more likely to occur among patients with higher disease severity. Increase in the prevalence of dry eyes was noted in patients with higher PASI score.

Conclusions

In this study we concluded that Ocular manifestations are a significant part of the psoriasis process. Cataract, dry eye and blepharitis are the most common ocular manifestations seen in our study. There was a significant association between the PASI score and ocular manifestations. Small sample size and the patients attending the hospital were taken into the study were the limitations of the study hence results cannot be generalized.

Implications

Routine eye examinations are recommended in psoriasis patients, to screen for common associated ophthalmic conditions during their regular follow-up visits with their dermatologist.

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