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Original Article

Ocular manifestations in psoriasis of Iraqi patients

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Abstract

Objective This was a cross-sectional study established in Iraq Dhi Qar Governorate, which aimed to determine the prevalence of ocular manifestations in psoriasis among Iraqi patients.

Methods This study was designed according to the frequency of ocular manifestations in psoriasis in Iraq, where reliance was placed on the statistical analysis program SPSS and the Schirmer test. To do a semiquantitative test of tear production that measures the physical tendency of a fluid to travel along a strip of porous material by capillary action due to surface tension, for the diagnosis of dry eye. The statistical analysis program SPSS was relied on to analyse demographic data and information about patients.

Results/Conclusion The mean age of the patients was 45.2±13.5, and results found a statistical correlation between ocular diseases and psoriasis in patients. In addition, other abnormalities in the eye were found, including keratitis and blepharitis. Moreover, the presence of eye diseases affects the degree of disease activity and the cutaneous form of psoriasis. It can affect one or both eyes, as it generally appears with outbreaks of infections that recur over time. About half of uveitis is due to an unknown cause.

Key words
Ocular; Psoriasis.

Introduction

Psoriasis is a chronic disease that affects four percent of the world's population. Through previous studies related to this topic, ocular findings or eye diseases in psoriasis were found in 7% of patients.[1-3]

Ocular psoriasis is not only a skin disease that worsens the quality of vision but also a serious cosmetic defect that can cause real depression in affected people.[4,5]

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Regardless of where the symptoms appear, psoriasis causes not only physical discomfort but also psychological discomfort. This is especially true for women.[6-8] Often, this leads to depression and nervous disorders, which further provoke the disease, and psoriasis on the eyelids is often accompanied by puffiness that can be seen in some photos of the eye.[9-11]

Most often, anterior uveitis occurs in patients with joint damage. Clinical features are similar to HLA-B27-associated uveitis (non-granulomatous uveitis with thin corneal deposits). The main complaints include pain, eye redness, photophobia, and systemic manifestations, include the presence of polyarthritis (characterized by the distal phalanges of the fingers of the upper and lower extremities, as well as the sacroiliac joint) and skin lesions (psoriasis).[12-15]

In another study, 74,129 patients with psoriasis, 13,114 patients presented with uveitis at the age of 18 years.[16,17]

The incidence of uveitis in the general population was 2.02 per 10,000 person-years (95% confidence interval CI 1.99–2.06), 2.88 per 10,000 person-year (95% CI 2.33–3.56) were those diagnosed with moderate psoriasis, 4.23 per 10,000 person-years (95% CI 2.40–7.45) with severe psoriasis, and 5.49 per 10,000 person-years (95% CI 3.36–8.96) with psoriatic arthritis.[18]

Taking into account age, gender, socioeconomic status, and comorbidities, the risk of developing uveitis in patients with moderate psoriasis was 38% (odds ratio (OR) 1.38; P=0.02), with severe psoriasis it was 40% (OR 1.4; P=0.34) and 150% (OR 2.5; P<0.001) in psoriatic arthritis patients.[19,20]

When analyzing data from uveitis patients, there is a 59% increased risk of moderate psoriasis (OR 1.59; P < 0.001), severe psoriasis by twice (OR 2.17; P <0.001), psoriatic arthritis by approximately four times (OR 3.77; P <0.001).

Material and method

This was a survey conducted in different hospitals in Thi-Qar, Iraq, where 80 patients were collected, and demographic information and data were collected after obtaining the ethical approvals for this study by the competent committees in the Iraqi Ministry of Health.

The patients in this study were distributed according to gender (50 female patients and 30 males) and the statistical analysis program IBM SPSS software was used to analyse demographic data, in which the average age of patients ranged from 30 to 60 years.

The initial diagnosis of psoriasis was made by relying on MG for clinical reasons. In addition, an assessment was made absent the extent severity of its validity by relying on a special assessment scale.

As for the classifications of cataracts, they were evaluated and classified according to the degree of six and seven LOSC.

In this study, we collected patients' demographic data and medical history, paying particular attention to their main complaints and any additional visual symptoms. Any prior history of eye disease or injury that might impact their vision, as well as any family history of eye diseases were also noted.

The study period was a full year after obtaining official approvals to collect samples and conduct the study. The duration of the study was from 01-06-202 to 7-5-2021.

Results and discussion

80 patients were collected, the mean age of the patients was 45.2±13.5, and the proportion of females was 50%. Regarding the comorbidities, diabetes was present in 25%, pressure diseases in 55% and ischemic heart disease in 9 patients (11.25%).

The combination of passive inflammatory arthritis and uveitis has been well studied. However, the occurrence of uveitis against the background of only psoriatic skin lesions without arthropathy is less common and rarely studied. However, such clinical cases have been described and are an additional confirmation of the systemic nature of the disease.

In this study, a uveitis was only found in 3% of the psoriasis patients, but this factor cannot be neglected. As psoriasis may be a major cause in the development of uveitis.

The percentage of ocular findings was observed

Table 1 Demographic data.

Characteristic	*Results patient*
Age (Mean± SD)	45.2±13.5
Sex	
Female	40 (50%)
Male	40 (50%)
Comorbidities of 80 patients	
Diabetes	20 (25%)
Hypertension	44 (55%)
Ischemic heart disease	9 (11.25%)
Hyperlipidemia	5 (6.25%)
Stroke	2 (2.5%)
Family history	
Yes	60 (75%)
No	20 (25%)
Lattice System Physician's Global Assessment (Mean± SD)	6.1±1.9
Eye symptoms	
Redness	40 (50%)
Painful sensitivity	50 (62.5%)
Lack of clarity	25 (31.25%)
Dry Eye	20 (25%)
Mean duration of disease	10.2±6.4

to be 50% of the patients group, (in both the right and left eye). According to the results, the prevalence of ocular findings in the patient group was statistically very high., In addition, the prevalence of blepharitis, conjunctivitis, and cornea affected in both eyes of the patient group was significantly higher than in the control group. The mean value of the Schirmer test in both eyes in the group of patients was statistically significantly average. The prevalence rate of ocular involvement in psoriasis was 61%, with conjunctival hyperemia being the most common finding. Kharolia 2022, found that the most common ocular pathologies observed in moderate-to-severe psoriasis patients were tarsal hyperemia and anterior blepharitis.

Katoch 2021 reported that ocular involvement occurs in 10% of patients with psoriasis, with blepharitis, dry eye, and meibomian gland dysfunction being the most common manifestations. Anitha 2020 found that the prevalence of ocular manifestations and complications was 55%, with conjunctivitis, dry eye, and meibomitis being the most common manifestations.

Ocular manifestations of psoriasis in patients have been reported in several studies. One study found that ocular involvement occurs in approximately 7-10% of patients with psoriasis, where another study reported that ocular manifestations were more common in patients with severe psoriasis and psoriatic arthritis.

Conclusion

Psoriasis is a chronic inflammatory disease of unknown etiology, characterized by well-defined red scaly plaques, affecting approximately 4% of the world's population. It can affect the eyes as well as the skin. Several studies and case reports have indicated that psoriasis can cause inflammatory damage to the eye.

We conclude from this study that psoriasis can be associated with cataracts and ocular surface

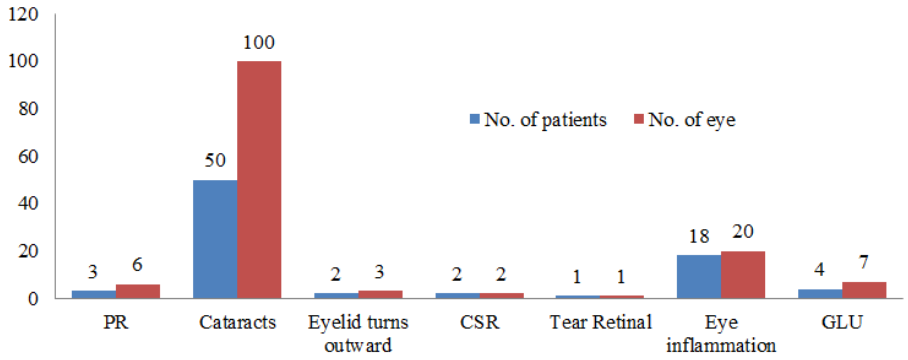

Figure 1 Results of patients according to Ocular abnormalities.

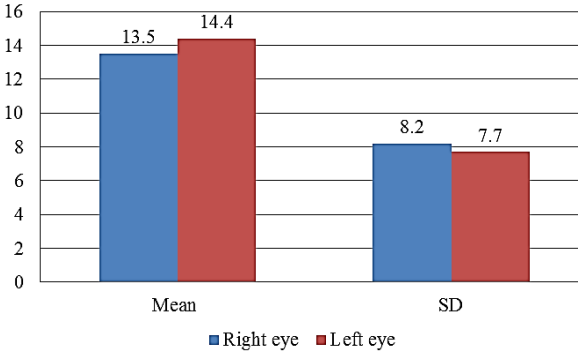

Figure 2 The mean of Schirmer values of patient.

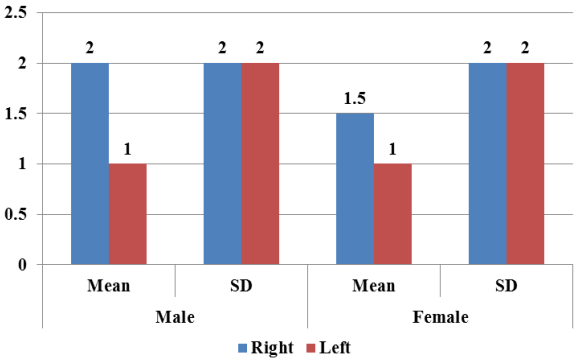

Figure 3 Results of the patient according to Rose Bengal.

diseases, in addition to the presence of inflammation in the eyelid.

Recommendation

Topical preparations are the main treatment for psoriasis on the eyelids. The most common are weak hormonal drugs (hydrocortisone-based). Non-hormonal anti-inflammatory drugs can also be used. These include products containing D-panthenol, zinc, urea, and salicylic acid, as well as drugs from the groups of vitamins D3 analogues and calcineurin inhibitors.

Currently, it is impossible to completely cure ocular psoriasis. However, you can extend the remission period. Modern medicine offers a number of proven remedies that eliminate symptoms and improve the general condition of the patient. The main thing is to go to the hospital in time and not delay treatment. The earlier the symptoms are detected, the more effective and faster the treatment.

It is important for dermatologists and ophthalmologists to be aware of these ocular manifestations and to collaborate in the management of patients with psoriasis to ensure proper diagnosis and treatment.

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