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Original research article

Prevalence of ocular manifestations in the various types of common skin disorders

[1]Sachin Manohar Shetty, [2]Vaishakha S Shetty

[1]Assistant Professor, Department of Dermatology, G.R Medical College Hospital & Research Centre, Mangalore, Karnataka, India

[2]Senior Resident, Department of Ophthalmology, Justice K.S. Hegde Charitable Hospital, Deralakatte, Mangaluru, Karnataka, India

Corresponding Author:
Vaishakha S Shetty

Abstract

Common skin conditions can sometimes present with mild to severe ocular manifestations, which can lead to damage to the eye or even vision loss in extreme cases. Ocular symptoms can range from mild to severe. Long-term drugs, such as steroids, hydroxychloroquine, retinoic acid, and immunosuppressive agents, are often recommended to dermatology patients. These treatments can have indirect side effects on the eyes and are one of the primary causes of ocular manifestations in dermatology patients. Steroids are another common long-term medication prescribed to dermatology patients. Therefore, it is of the utmost importance for dermatological patients to undergo comprehensive examinations, be referred to ophthalmologists and be followed up on for an extended period of time. The purpose of this article is to investigate the prevalence of the many types of common skin illnesses as well as their effects on the eye.

Keywords: Prevalence, ocular manifestations, common skin disorders

Introduction

Common skin conditions can sometimes present with mild to severe ocular manifestations, which can lead to damage to the eye or even vision loss in extreme cases. Ocular symptoms can range from mild to severe. Long-term drugs, such as steroids, hydroxychloroquine, retinoic acid, and immunosuppressive agents, are often recommended to dermatology patients. These treatments can have indirect side effects on the eyes and are one of the primary causes of ocular manifestations in dermatology patients. Corticosteroids are another common long-term medication prescribed to dermatology patients. Therefore, it is of the utmost importance for dermatological patients to undergo comprehensive examinations, be referred to ophthalmologists, and be followed up on for an extended period of time. The early discovery of the clinical relationship between ocular manifestations and dermatological disease is vital for the care of the patient since many dermatological disorders might appear initially with ocular findings. This is why early detection of the clinical relationship between ocular manifestations and dermatological disease is important. In our research, we focused on the ocular manifestations of major dermatological illnesses that are most frequently seen and have the most impact. These are the types of symptoms that need to be investigated and analysed so that doctors may better treat their patients [1, 2, 3].

Materials and Methods

Our study is an observational retrospective study that was conducted on patients with dermatological illnesses who were presented to the ophthalmology department in a tertiary hospital between September 2022 and December 2022. The study took place throughout that time period. Patients received comprehensive care that was coupled with the services provided by the dermatology department. We obtained written consent from each of the sixty patients who suffered from dermatological conditions that manifested themselves ocularly. Patients who did not want to take part in the study and patients who were suffering from any mental, neurological, or debilitating ailment that made it difficult to examine them were not included in the research. Age, gender, and the specific skin illness were all taken into account. Patients who were diagnosed with a skin disease underwent clinical testing to rule out the possibility of an associated eye issue. Following a discussion with the dermatology department, a complete record of all dermatological findings and treatments was compiled. The patient's medical history was documented, including the duration of each illness as well as any medications they had taken in the past to treat skin conditions. Snellen's chart was utilised in order to determine the patient's best-corrected visual acuity. All of the indicated patients had their intraocular pressure measured, and both of their eyes were examined. The use of fluorescein strips containing 2% was required in order to perform corneal staining in situations with corneal epithelial defects or corneal erosions. We performed

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Schirmer's test for a total of five minutes on each patient with dry eyes, using filter paper with the Whatman® number 41 designation.

Investigations such as perimetry and optical coherence tomography were performed on patients who exhibited symptoms that were consistent with glaucoma suspicion. Radiological examinations such as X-ray orbits, magnetic resonance imaging scans, and computed tomography scans were carried out if they were deemed necessary. The number of individuals diagnosed with a certain disease who exhibited a given set of ocular manifestations was counted, and the results of that analysis were analysed.

Results

Table 1: Eye Findings

Eyelid finding	Acne	Atopic dermatitis	Steven johnson'S syndrome (SJS)	Pemphigoid	Sjogren's syndrome	(HZO)	(HIV)
Blepharitis	22	1	0	0	0	2	0
Chalazion	2	0	0	0	0	0	0
Crusting	0	0	4	0	0	0	0
Ectropion	0	0	0	0	0	0	0
Lagophthalmos	0	0	0	0	0	0	0
MGD	4	0	0	0	0	0	0
Plexiform NF	0	0	0	0	0	0	0
Scarring	0	0	0	0	0	10	0
Stye	5	0	0	5	0	2	0
Vesicles	0	0	0	0	0	91	0
Normal	24	10	1	7	3	6	34
Total	57	11	5	12	3	111	34

Table 2: Conjunctival Findings

Eyelid finding	Acne	Atopic dermatitis	Steven johnson'S syndrome (SJS)	Pemphigoid	Sjogren's syndrome	(HZO)	(HIV)
Allergic keratoconjuctivitis	0	0	0	0	0	0	0
Conjunctival xerosis	0	0	0	0	2	0	0
Conjunctivitis	0	0	1	6	0	34	12
Papillary conjunctivitis	0	5	0	0	0	0	0
Seudo membrane	0	0	3	0	0	0	0
Normal	57	6	1	6	1	77	22
Total	57	11	5	12	3	111	34

Discussion

A chronic inflammatory illness that affects the skin and oil glands, ocular rosacea can also damage the eyes. Rosacea causes inflammation of the meibomian glands of the eyelid, which are responsible for producing the oily component of the tear film. Ocular manifestations include severe photophobia, persistent red eyes, and chalazia as well as sties. Scarring of the cornea and infiltrative marginal keratitis are also possible complications for patients. It affects more than fifty percent of people who are diagnosed with dermatological illnesses [4]. Neurofibromatosis (NF) is a form of phacomatosis that is caused by a genetic aberration. This genetic abnormality has an effect on the growth of neural tissue, which in turn has an effect on the nervous system, skin, eyes, and other organs. Genetic abnormalities can be inherited from one's parents or develop on their own during the process of conception. The most common forms of neurofibromatosis are known as type 1 (NF1) peripheral neurofibromatosis and type 2 (NF2) central neurofibromatosis. Eyelid neurofibroma is a form of phacomatosis in which a gradually fast-growing lid tumour has a tendency to develop early in younger age groups. This tumour typically obscures the visual axis and finally has an effect on the patient's eyesight.

Leprosy, also known as Hansen's disease, is a chronic infectious disease that affects the skin, nasal mucosa, peripheral nerves, and the anterior region of the eye [5]. Leprosy is caused by an intracellular rod-shaped acid-fast bacilli called Mycobacterium leprae. Cataracts, lagophthalmos, diminished corneal sensations, exposure keratopathy, and uveitis are some of the ocular signs that might occur. An ulcer on the cornea can be the result of either an acute microbial infection or a secondary infection that develops as a result of exposure keratitis. Psoriasis is a very uncommon illness that frequently manifests in the eye. Both males and females are equally susceptible to its effects [6, 7]. A persistent scaly plaque, peeling, itching, and soreness can all be symptoms of psoriasis on the skin. Conjunctivitis, chronic blepharitis, keratitis, trichiasis, symblepharon, anterior uveitis, and retinal vasculitis are the visual symptoms of this condition. In people with psoriasis, uveitis is a chronic disorder that affects both eyes and is more common in older age groups. On the other hand, human leukocyte antigen B27 (HLA B27) anterior uveitis affects just one eye but can lead to posterior ocular involvement. Cataracts in the posterior

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subcapsular lens may develop in patients who have been treated for psoriasis with systemic corticosteroids for an extended period of time.
The purpose of this article is to investigate the frequency of ocular symptoms among the various subspecialties of dermatology.

Conclusion

As the majority of dermatological diseases are associated with ocular features, complete ocular evaluation is necessary for every patient with dermatological disease.

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