



Sociodemographic Profile Of Pterygium Patients Attending Government Medical College Doda

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Abstract

Background: A pterygium is a triangular fibrovascular subepithelial growth of bulbar conjunctival tissue that has invaded the superficial cornea, causing visual impairment. It is a degenerative condition.

Materials and Methods: A descriptive cross sectional study was done for a period of 2 years, in the outpatient department of ophthalmology. Among all the patients visiting the OPD in the given duration, a total of 100 patients having Pterygium were selected for the study. Detailed history of the all the patients were taken and required examination was done. Data collected was analysed with Microsoft excel software.

Results: The results depict that males (62%) were more affected than the females (38%) and nasal pterygium was more common than the temporal pterygium. It was also found that unilateral pterygium (75%) is more common than bilateral pterygium (25%) and progressive pterygium (83%) is more common than atrophic or recurrent types. Analysis also revealed that the incidence was found to be maximum among farmers 35% followed by labourers 32%.

Conclusion: People living in high altitude regions and people who work outdoors are subjected to involuntary U.V. B exposure, dust. Workers must be aware of this and they must take appropriate precautions like wearing protective photochromatic glasses, caps etc.

Keywords: NIL

Introduction

A Pterygium, a wing-shaped fibrovascular growth of the bulbar conjunctiva, is a common chronic ophthalmic condition [1]. Pterygium is triangular fibrovascular subepithelial growth of bulbar conjunctival tissue which arises due to chronic exposure to UV B rays, dust, dryness chronic irritation and abnormal blinking patterns. It is organised into head, neck and body. The pterygium causes anatomical and physiological changes in the tear film, corneal distortion can lead to induced astigmatism, visual impairment occurs due to interference with visual axis, it can cause double vision and it also causes obvious cosmetic problems. Progressive pterygium is thick, fleshy and vascularised whereas an atrophic pterygium is less vascular and thin. Type I pterygium shows <2 mm encroachment into the cornea. Type II between 2 to

4mm and type III - >4 mm encroachment on to the cornea. (2,3)

Among the several risk factors reported, exposure to UV rays is perhaps the most common risk factor for the occurrence of pterygium [4]. Meanwhile, other confirmed risk factors include dry, warm, dusty climates; high winds; age; and sex [5]. Several modes of inheritance have also been reported such as autosomal-dominant, autosomal-recessive, sex-linked, and non-Mendelian modes of inheritance [6]. It is a common external ocular disease with prevalence ranging between 0.3% and 36.6% globally (Anbesse DH et al) (7). Treatment for pterygium has been improved in recent years. The recurrence rate after pterygium excision with limbal

conjunctival autograft was lower than that of bare sclera. (8)

This study was done to evaluate the prevalence of pterygium and its various modifiable and non-modifiable risk factors so that this recurrent, potentially blinding disease can be prevented. A cross-sectional study was conducted from July 2019 to July 2021 in the outpatient department of Ophthalmology of Govt. Medical College Doda, Jammu and Kashmir, India.

Inclusion Criteria

Among all the patients visiting the OPD for different ocular ailments in the given period, a total of 100 patients having pterygium were selected for the study, irrespective of age and gender, eye involved and position of pterygium.

Exclusion Criteria

1. The patients having history of surgical intervention
2. The patients not willing to participate.

A verbal consent from all the patients willing to participate was taken in their local language. As per ICMR and CDSCO guidelines for good clinical practice, all principles of bioethics were followed. The patients were thoroughly examined with torch, slit lamp and direct ophthalmoscope. UCVA and BCVA in either eye was noted in all patients.

All the necessary data regarding age, sex, occupation, educational status, eye involved, chief complaint, nature of pterygium, position of pterygium as well as grading of pterygium were collected and entered into MS Excel (Microsoft Corporation, Redmond, WA, USA) to review in the form of percentages and proportions.

Results

In this study, among the 100 patients taken into consideration, 62 (62%) were males and 38 (38%) were females (Table 1). Among the 100 patients 40% patients were in the age group of 31-40 years, followed by 24% in 41-50 years, 17% in 21-30 years, 10% in 51-60 years, 6% in 61-70 years and 3% in >71 years. The data collected regarding the occupation shows that majority of patients were outdoor workers (67%), followed by office workers (9%). the condition was maximum in farmers (35%) followed by labourers (32%). Majority of the people had their right eye affected with pterygium (42%), while 25% of the patients were seen to have their both eyes affected with pterygium.

A huge majority presented with nasal pterygium 97 (97%), temporal pterygia were seen in 3%. Progressive pterygium was seen in 83 (83%) people while 17 (17%) people presented with atrophic type

All the results are shown in the table 1:

Table 1:

Age in years	Number of patients	percentage
21-30	17	17%
31-40	40	40%
41-50	24	24%
51-60	10	10%
61-70	6	6%
>71	3	3%
sex	Number of patients	percentage
Male	62	62%
female	38	38%
Occupation	No. of patients	Percentage

Farmers	35	35%
Labourers	32	32%
Office staff	9	9%
Students	5	5%
Housewives	11	11%
Others	8	8%
Eye involved	No of patients	Percentage
Right	42	42%
Left both	33	33%
	25	25%
Position of pterygium	No. of patients	Percentage
Nasal	97	97%
Temporal	3	3%
Nature of pterygium	No. of patients	Percentage
Progressive	83	83%
Atrophic	17	17%

Discussion:

In the present study males (62%) were affected more than females (38%) well in accordance with studies conducted by , Saleem M et al (9) Khan N et al and Rahman A et,(10,11). Ganeshpuri As et al had also reported that pterygium is more common in males than females(12). In his study on 62 pterygium patients, he found pterygium patients , he found that 58.06% were males and 41.94% patients were female. In India, it is a common practice that the male member of the family is exposed to the outdoor activities for earning livelihood, thus being more exposed to dust and sunlight. This could well be the reason for higher no. of males in present study too.

As shown in Table 1, a total of 40 patients (40% of the total study population) were seen in the age group 31-40 years. Ganeshpuri AS et al in a study on 62

pterygium patients found that maximum patients i.e. 22 were in age group of 31-40 years followed by 17 in the age group of 41-50.(12) Osahon et al in their study in Benin city found the peak prevalence rate to

be in the age group 31-40 years.(13) Sharma A et al in his study on 80 years.(13) Sharma A et al in his study on 80 eyes with primary nasal pterygium found that maximum number of patients i.e. 26 are in age group (31-40 number of patients i.e. 26 are in age group (31-40) followed by 21 in age group (21-30).(14) Rohatgi S found that maximum number of pterygium patients in his study were in the age group 30-39 years (32%).(15)

In present study a total of 67 patients (67%) were outdoor worker consistent with the study conducted by Beki-bele CO et al, wherein he stated that outdoor occupation is an independent risk factor for the development of pterygium.(16) In the present study, out of 90, the maximum number of

patients were farmers 35%. Rohatgi S had also found that maximum number of patients 40% affected with pterygium were farmers (15). Maharjan MI et al and Chavan WM et al had also made similar observations (17,18). In present study right eye was involved in 42(42%) whereas left eye was involved in 33(33%) patients and both eyes in 25(25%) patients. Maharjan

MI and Krishnaram K et al had also found that right eye was predominantly affected then the left eye.(17,19)

Nasal pterygium (97patients) followed by temporal pterygium (3patients) was the most common position of the pterygium seen in our study population. Similar observations were made both by Chavan WM and Krishnaram K et al(18,19). Rohatgi S et al and Prabhakar SK et al found that all cases of pterygium were nasal in presentation(15,20).

In present study progressive pterygium was seen in 83 patients (83%) and atrophic pterygium seen in 17patients (17%), . Chavan WM et al, in their study found progressive pterygium in 72.4% eyes and atrophic in 27.6% eyes.(18) Krishnaram K et al, in a study on 115 pterygium patients found that in 78 patients, pterygium was progressive in nature type while in 37 patients it was atrophic.(19) Manhas A et al, in their study stated that progressive pterygium was present in 80% of patients whereas atrophic was seen in 20% of patients.(21)

Conclusion: It can be concluded that pterygium is a degenerative condition which is a significant visual problem. From present study we may conclude that most of the cases of pterygium were seen in the middle aged people. Pterygium is more common in patients who do outdoor work which can be decreased by wearing photo protective goggles while working(22). Sunlight exposure and outdoor activities were the only modifiable risk factors

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