A STUDY ON PREVALENCE OF PTERYGIUM IN A TERTIARY PRIVATE TEACHING HOSPITAL

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Abstract

Introduction: Exact etiology and pathogenesis of pterygium remains unclear, but it is more common in people with excessive outdoor exposure to sunlight and wind, such as those who work outdoors.

Materials & Methods: To analyze the epidemiology and prevalence of pterygium in a hospital-based study in Department of Ophthalmology, Fathima Institute of Medical Sciences, Kadapa. The study period was from May 2017 to April 2018. 50 study subjects with pterygium were studied.

Results: A cross-section hospital-based, observational study was conducted. Among the study subjects the maximum prevalence were from ≥ 60 year age group (36%), followed by 40-60 year age group (34%).

Keywords: Prevalence, Pterygium, Kadapa

Introduction:

Pterygium is a wing-shaped, fleshy growth, and invasive extraocular lesion located most commonly in the nasal part of the limbus extending onto the cornea. This disease occurs throughout the world, and the prevalence rates vary widely from 1.2% to 33%. [1,2] Recent reports have also indicated an association of pterygium with dry, warm, and dusty climates, and high winds and genetic predisposition.[3,4]

Studies in rural areas of India and China have shown high prevalence of pterygium, which highlights the importance of the evaluation of these diseases in rural places.[5-7] The risk of pterygium is higher in rural areas due to environmental conditions and lifestyle, poverty, and limited access to health services.

Pterygium is commonly seen in India, which is a part of the "Pterygium belt" which was described by Cameron [8]. In northern climates, Pterygium is almost exclusively confined to fishermen and rural workers [9].

Objectives:

To analyze the epidemiology of pterygium in a hospital-based study.

Materials and methods

The study period was from May 2017 to April 2018. Among the total out patients, 50 study subjects were enrolled using consecutive sampling in Department of Ophthalmology, Fathima Institute of Medical Sciences, Kadapa.

Inclusion criteria

1. People of age group >18 years
2. True Pterygium
3. Patients with known dry eye syndrome

Exclusion criteria

1. Pediatric patients
2. Patients with fundus pathology
3. Glaucoma patients
4. Bilateral cases of pterygium
5. Injuries

The data of categorical and ordinal variable were represented as frequencies and percentages. The data of continuous variable was represented as mean $\pm$ SD.

Results:

Table 1: Pterygium in relation to age distribution

Age (years)	Frequency	Percentage
18-40	15	30
40-60	17	34
≥ 60	18	36
Total	50	100

Among the study subjects the maximum prevalence were from ≥ 60 year age group (36%), followed by 40-60 year age group (34%).

Table 2: Pterygium in relation to sex distribution

Sex	Frequency	Percentage
Females	30	60
Males	20	40
Total	50	100

Among the study subjects the maximum prevalence was seen in females – 60%, male to female ratio was 1:1.5.

Table 3: Pterygium in relation to occupation

Occupation	Frequency	Percentage
Indoor	8	16
Outdoor	42	84
Total	50	100

Among the study subjects, majority were working outdoor (84%) when compared to indoor (16%).

Table 4: Characteristics of pterygium

	Number of patients(n)	Percentage
Laterality		
Unilateral	26	52
Bilateral	24	48
Location		
Nasal	46	92
Temporal	2	4
Double pterygium	2	4
Total	45	100

Among the study subjects, prevalence of pterygium was unilateral in 52% and 48% bilateral cases were seen. 92% of the pterygium were located nasally and 4% each were located in Temporal and double.

Discussion

Among the total out patients, 50 study subjects were enrolled using consecutive sampling in Department of Ophthalmology, Fathima Institute of Medical Sciences, Kadapa. Among the study subjects the maximum were from ≥ 60 year age group (36%), followed by 40-60 year age group (34%) and 18-40 year age group (30%). The mean age of the patients in this study was 48.5 years. A study done by Bhardwaj Veena *et al* [10] shows us a high incidence of pterygium in the age groups of 21–40 years and 41–60 years. A study done by Sanjeev *et al* [11] shows a maximum percentage i.e 64% was noticed in age group 30-39 yrs. A study done by Alqahtani [12], demonstrated an increase in the prevalence of

pterygium with increasing age. We found that the prevalence of pterygium was 19% in those ≥ 30 y, but 81% for those ≥ 30 -82 years.

Among the study subjects the maximum were females – 60%, male to female ratio was 1:1.5. A study done by Bhardwaj Veena *et al* [10] shows us a high prevalence of pterygium 54% among females. A study done by Sanjeev *et al* [11] reported a male preponderance of 60%. A study done by Alqahtani [12], reported that rates for men and women were 74% (95% CI: 0.66 to 0.82) and 26% (95% CI: 0.17 to 0.34), respectively, also demonstrating no statistically significant difference; $p > 0.05$.

Among the study subjects, majority were working outdoor (84%) when compared to indoor (16%). Among the study subjects, pterygium was unilateral in 52% and 48% bilateral cases were seen. 92% of the pterygium were located nasally and 4% each were located in Temporal and double. A study done by Alqahtani [12], reported that prevalence for laterality was not significant, whereas regarding location, nasal pterygium was more significant than both temporal and double pterygium. Similar results were found by Viso *et al.* in Spain,[13] Gazzard *et al.* in Indonesia,[14] Forsius *et al.* in Rwanda,[15] Sarac *et al.* in Turkey.[16]

Conclusion:

In conclusion, this study demonstrates the prevalence of pterygium according to age and gender in this hospital based study.

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