

Prevalence of Pterygium in a Tertiary Care Hospital, Hyderabad

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ABSTRACT

Introduction: Pterygium is a common condition in the general population. Geographical variations are common with pterygium. It can affect any age group. It is a fleshy and vascular growth that originates from conjunctiva, gradually approaching the cornea and causing impairment of vision. Clinical picture varies from asymptomatic stage to astigmatism. The present study is to know the prevalence of pterygium in a tertiary care hospital with relation to demographic and other variables. It is also to assess the mode of treatment and recurrence rate.

Material and methods: The study was conducted in Malla Reddy Institute of Medical Sciences, Hyderabad for one year. All the patients attending to Ophthalmic Department OP were screened for the study. In the exclusion criteria, children below 3 years were taken. The pterygium cases that needed treatment for their impaired vision were admitted to the hospital and provided treatment. The details of the cases were collected through a pre-designed questionnaire and compiled in excel. Data of patients who reported to hospital during July 2014 to June 2015 were included in the study.

Results: Total 398 cases registered during the study period. Out of reported cases 279 were treated medically in the outpatient department. 68 cases were admitted for surgical treatment. Simple excision was done in three cases. Excision and limbal conjunctival autograft was done in 65 cases. Recurrence of pterygium was observed in 3 cases.

Conclusion: Low recurrence rate was observed with conjunctival autograft transplantation.

Keywords: Pterygium, Astigmatism, Geographical variations

INTRODUCTION

Pterygium (Surfer's eye) is a common ophthalmic condition seen in day to day practice.^{1,6} It is fleshy and vascular growth originating from conjunctiva. It commonly grows from the nasal side of the conjunctiva. In the initial phase, it is asymptomatic and as it grows it causes blurred vision by inducing astigmatism till it crosses the pupillary area completely obstructing light and causing loss of vision. The fleshy growth has distinctive areas of cap, head and body. Exposure to sunlight, low humid conditions and dust are the precipitating factors for pterygium.²⁻⁴ The aetiology of the condition is multiple ranging from geographical variations to genetic involvement.^{5,6} Positive immunohistochemical staining is observed in epithelial cells of pterygium.

The underlying pathology of pterygium is elastotic degeneration of collagen and fibrovascular proliferation.

Majority of pterygium cases are asymptomatic and do not require any treatment. The cases approach ophthalmologist mainly for cosmetic purpose. The patients may have dryness of conjunctiva and as the pterygium increases, induced astigmatism with blurred vision.

The treatment varies from conservative treatment to surgical

treatment with adjunctive therapy like strontium plaque therapy or mitomycin-c.

The present study was to assess the magnitude of the problem in attending hospital cases and percentage of cases with defective vision. The study was also to estimate the relationship of pterygium with demographic and other variables. Types of treatment modalities in this hospital and their outcomes were analysed.

MATERIAL AND METHODS

The study was conducted in Malla Reddy Institute of Medical Sciences, Hyderabad. Total duration of study was one year. During one year period, the number of patients attending OP of Ophthalmic Department were taken for study i.e 398, excluding children below three years of age. Obtaining prior ethical approval and consent from patients they were screened for the study. The patients with visual impairment were admitted to the hospital for further treatment. The IP patients were examined and further investigations were done for managing the cases. Demographic and other data were obtained through a pre-designed format.

STATISTICAL ANALYSIS

All the data was compiled in Microsoft office excel sheet and tables were generated. Descriptive statistics were used to infer results.

RESULTS

During the study period, total number of patients with pterygium who attended OP were 398. 68 of the total cases were admitted to the hospital for surgical treatment.

Table 1 shows the distribution of pterygium cases as according to sex. 131 (38%) males and 215 (62%) females attended hospital for pterygium treatment.

Table 2 shows the distribution of cases as per their age. The age groups who attended hospital for pterygium treatment were from 10 years to 80 years but the common age group of cases with pterygium was in the 30-60 years (74%). 87% of the study group have defective vision. 9 out of 68 cases seeking surgical treatment were with normal visual acuity.

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How to cite this article: Sangeeta Das, D. Babu Rao, C. Bala Krishna. Prevalence of pterygium in a tertiary care hospital, Hyderabad. International Journal of Contemporary Medical Research 2016;3(4):1116-1118.

Table 3 shows the distribution of cases as per age wise. 62% of cases reported were in the age group of 40-60 years. 2 cases of recurrence were observed in 30-40 years age group and one in 50-60 years age group.

DISCUSSION

The study was conducted in a tertiary care hospital. Total number of cases who attended for pterygium was 398 during 2014 to 2015. 279 cases were treated medically. 68 cases were admitted for surgical treatment. Among the patients 26 were males and 42 females. Three fourth of the cases were in the age group of 30 years to 60 years. 13% of the cases attending OP for consultation did not have any defective vision.

Among the cases admitted for surgery, simple excision was done in three cases and in the remaining 65 cases limbal conjunctival autograft was done. The common mode of treatment for symptomatic pterygia was excision with limbal conjunctival autografting.^{7,8} The cases were followed up for one year from the day of operation. In the simple excision cases, all the three cases recurred subsequently whereas in limbal conjunctival autograft cases none of them reported with recurrence.⁹⁻¹² In the present study, none of them developed neither intraoperative nor post operative complications. Development of infection, defective vision due to astigmatism can be expected in surgical procedures with delayed wound healing.¹³⁻¹⁵

B.D. Allan et al, conducted a cross sectional study in 85 patients and in 93 eyes followed up over 6 months period post operatively and found 6 recurrences (6.5%) and 4 of them with minor recurrences. Main complications found in their study were wound dehiscence, Tenon’s granuloma and conjunctival cyst. In the present study no recurrences were found with limbal conjunctival autograft.

Karalezile A. et al observed that conjunctival autografting after pterygium excision had very low rates of recurrence compared with other techniques. The surgeon’s skill and experience affect the recurrence rate, which varies between 2-39% with this technique.

D de Wit et al, studied in 12 patients and in 15 eyes; cosmesis was excellent in all the cases. Visual acuity improved and no intra-operative and post-operative complications were observed. Similar findings were observed in the present study.¹⁶ Kenneth R et al in their study found that limbal conjunctival autograft is with minimum recurrence rate compared to other methods and more cost effective. Present study has also confirmed the similar type of results. With simple excision the recurrence was very high hence, limbal conjunctival autograft is found to be a better alternative.

CONCLUSION

The excision of pterygium with conjunctival autograft transplant is highly efficient in terms of low recurrence rate. In the present study more number of females compared to males attended hospital with pterygium. Health seeking behavior of females could be one of the reasons for high in number.

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Sex	Defective vision no.	Normal vision no.
Male	131	20
Female	215	32
Total	346	52

Table-1: Sex wise distribution of pterygium cases with defective vision

Age	Defective vision no.	Defective vision %	Normal vision no.	Normal vision %
10-19	1	0.29	0	0
20-29	5	1.45	3	5.77
30-39	41	11.85	7	13.46
40-49	152	43.93	25	48
50-59	87	25.14	7	13.46
60-69	36	10.40	5	9.62
70-79	25	7.23	4	7.69
Total	346	100	52	100

Table-2: Age wise distribution of pterygium cases with defective vision

Age	Medical no	Medical %	Surgical no	Surgical %	Recurrence No	Recurrence %
<10 Years	0	0	0	0	0	0
10-19	0	0	1	1.47	0	0
20-29	0	0	5	7.35	0	0
30-39	33	11.83	8	11.76	2	66.66
40-49	126	45.16	26	38.24	0	0
50-59	71	25.45	16	23.53	1	33.33
60-69	29	10.39	7	10.29	0	0
70-79	20	7.17	5	7.35	0	0
Total	279	100	68	100	3	100

Table-3: Distribution of treated cases as per age group wise

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Source of Support: Nil; **Conflict of Interest:** None

Submitted: 22-02-2016; **Published online:** 21-03-2016