Prevalence And Pattern Of Pterygium
K K Krishnaram

Citation

Abstract
PURPOSE:
To study the prevalence and pattern of Pterygium in rural south Indian population in present time

METHODOLOGY:
Pterygium cases from a semi-urban area were examined for pattern & prevalence

RESULTS:
Out of ‘115’ cases of pterygium all were nasal in location. ‘78’ were progressive type; 37 were atrophic; 68 were in Right Eye (one patient had undergone pterygium excision in the Left Eye a year ago); 36 were in Left Eye; 11 were bilateral. Age wise 51-60 age group was the most (48 pterygium) followed by 41-50 age group. There were in the 61-70 age group 11 patients; surprisingly there were 12 patients in the 31-40 age group. 1 pterygium was only 28 years age. Gender wise 66 were male; 49 were female patients. Exposure to intense UV rays from arc welding was obtained in 5 cases(3); one patient was a gas welder.

CONCLUSION:
The prevalence of nasal pterygium has now changed from those reported in literature; incidence differs from place to place; considerable number of persons are in the 41-50 age group. Youngest in this study was 28 years of age. Temporal type was conspicuously absent in this study progressive pterygium was more common than atrophic pterygium in the ratio of 2:1.

Nasal pterygium is a worldwide condition commonly seen in the tropical belt located between 37 North to 37 South of the equator. Pterygium is a fibro vascular and wing shaped encroachment of degenerated bulbar conjunctiva onto cornea. UV light induced damage to the limbal stem cell barrier with a subsequent conjunctivalization of the cornea is the currently accepted aetiology.(1,2,4) The recognition of its progressive or atrophic type assumes great importance when one considers surgical treatment; atrophic pterygium requires surgery only for cosmetic purposes.

The incidence and pattern of pterygium varies from region to region. Persons exposed to high UV doses, usually from sunlight, as in agricultural laborers and people exposed to arc welding without proper protection glass develop progressive type of pterygium(5,6,7). Other groups in whom a high prevalence of pterygium included surfers, sailors(8,9), such individuals are exposed to high levels of UV albedo-reflected, scattered light. Lord Nelson was troubled by bilateral pterygia and a green eye shade was fixed to his admiral’s cocked hat(10).

Following is a report of the incidence and pattern of pterygium in a semi urban area of south India.

MATERIALS & METHODS
The cases were from those who attended the outpatient section of the opthalmology department of CHEENAI MEDICAL COLLEGE HOSPITAL & RESEARCH CENTRE, at IRUNGALUR, a semi urban area 20kms from the center of TRICHY CITY. The study period was from 2nd Jan, 2012 to 28th Jan, 2012.

All cases of pterygium were taken up for study. Detailed history was gone into the occupation if exposed to sunlight for long time or arc welder’s light. The eyes were examine
under slit lamp biomicroscope to find out the pattern—
progressive or not; special attention was laid on detecting
the semi lunar infiltrative cap in front of the apex of the
pterygium in the cornea. Vertical Stocker’s line also was
noted.

Treatment included excision of the progressive pterygium
with conjunctival autograft and artificial tears for atrophic
pterygium.

OBERVATION & COMMENTS:

Reports about nasal pterygium puts the pattern – progressive
to atrophic 3:2 ratio. Our study shows it to be about 2:1 (78
cases progressive to 37 cases atrophic). Other reports
showed almost equal laterality; but our study shows the right
eye (RE) to be affected almost twice than left eye (LE).
Bilateral pterygium is only 11 compared to contents to high
proposal in the study.

Irungalur in central Tamilnadu at the at a longitude of 77
East and latitude 13 N. The main occupation in the area is
agriculture. Most inhabitants belong to poor to lower middle
income group.

FREQUENCY:

Nasal pterygium has been reported from early scientific
ophthalmological period from tropical areas; ancient
paintings from medieval periods show some of the persons
having pterygium in their eyes. Progressive type to atrophic
type ratio is 3:2 as per literature; but now it (progressive )has
increased ; Progressive type to atrophic type ratio is almost
2:1.

In this study, 115 cases of nasal pterygium were study. Out
of them 78 were progressive & 37 were atrophic. Progressive
pterygium was diagnosed with slit lamp biomicroscope
clearly depicting semi lunar infiltrative cap.

Few other authors have observed such a high incidence of
progressive pterygium.

Among the 115 cases males were outnumbering females-66
males to 49 females. Earlier reports indicated equal to
slightly female dominated statistics; probably females went
to agricultural jobs more than males in those area of study.
In this study males outnumbered females, even though
female folks in Irungalur go to agricultural operations than
men, which is difficult to be explained on excessive
exposure to UV radiation alone.

The common age group in the series was the sixth decade
(51–60), followed by the fifth decade (41-50). The oldest
patient was 69 years of age the youngest was 28.

Causes: 16 were agricultural labourers; 13 were other
laborers. (coolies) 6 were welders-5 arc welders & 1 gas
welder. Majority of female, 28, were housewives.

FEATURES: The main symptoms in progressive in
progressive pterygium was a feeling of fleshy growth and
diminution of vision; atrophic was incidentally noted in
most. SL exam revealed semilunar infiltrative cap in front of
the apex of pterygium in the cornea in all progressive cases.
The growth was also fleshy. The atrophic did not show the
cap and it was looking pale.

In this study the one single thing that stood out was the
increased frequency of progressive pterygium in the 6th &
5th decades; RE was predominantly affected.

SUMMARY

Prevalence & pattern of nasal pterygium, 115 cases, are
presented. The frequency of progressive pterygium has
definitely increased in males with a predilection to Right
eye. It is observed that this may be due to increased UV
exposure. The absence of temporal pterygium in the 115
cases/230 eyes is a fact which has to be further investigated.

Tables 1 & 2
Table 3

<table>
<thead>
<tr>
<th>Causes (Occupation Based)</th>
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<tbody>
<tr>
<td>Agricultural labourers - uv-16</td>
</tr>
<tr>
<td>Arc welders - uv-5</td>
</tr>
<tr>
<td>Gas welding - heat/dust-1</td>
</tr>
<tr>
<td>Other labourers - heat/drying - 28</td>
</tr>
<tr>
<td>Housewives - heat from oven/drying - 28</td>
</tr>
<tr>
<td>Officials/retd. officials/others - 52</td>
</tr>
<tr>
<td>Drying from</td>
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<td>fan/air conditioners/Genetic/idiopathic</td>
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</tbody>
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Figure 1

References

Author Information
Kuppusamy Krishnaram, M.S., D.O., Associate Professor & HOD
Department Of Ophthalmology, Chennai Medical College Hospital & Research Centre
Irungalur, Trichy District.