

# Prevalence And Pattern Of Pterygium

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## 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 1 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 fibrovascular 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 aetiopathogenesis. (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 sun light, as in agricultural laborers and people exposed to arc welding without proper protection glasses 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 ophthalmology department of CHEENAI MEDICAL COLLEGE HOSPITAL & RESEARCH CENTRE, at IRUNGALUR, a semi urban area 20 kms 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 examined

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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&37were 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.

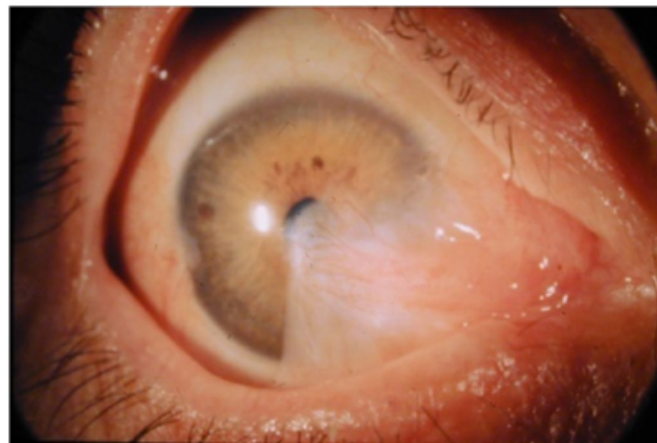
**Tables 1 & 2**

Table 1			Table 2	
AGE&GENDER INCIDENCE			CLIN ICAL TYPE&LATERALITY	
Age	Gender	Anatomical type	MALE	RE:29 LE:31 BE:6
21-30	M:0	-	FEMALE	RE:19 LE:25 BE:5
	F:1	NASAL	MALE	PROGRESSIVE:42
31-40	M:10	NASAL		ATROPHIC:12
	F:2	NASAL	FEMALE	PROGRESSIVE:36 ATROPHIC: 25
41-50	M:23	NASAL	In bilateral cases, the more prominent eye was taken into consideration for preparing this table.	
	F:20	NASAL		
51-60	M:25	NASAL		
	F:23	NASAL		
61-70	M:7	NASAL		
	F:4	NASAL		

Table 3

Table 3
CAUSES(OCCUPATION BASED)
Agricultural labourers-uv-16
Arc welders-uv-5
Gaswelding-heat/dust-1
Other labourers-dust/drying -13
Housewives-heat from oven/drying-28
Officials/ret'd officials/others-52
Drying from
fan/air conditioners/Genetic/idiopathic

Figure 1



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