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# PTERYGIUM & ITS MANAGEMENT IN AGRICULTURAL LABOURERS

Ophthalmology

**Dr.Nageshwar Sharma** D.o (pat), Ms (eye), Ph.d (ophthal), Assisstant Professor, Eye Deptt. P.m.c.h. Patna

KEYWORDS

## INTRODUCTION

Eyes are the prettiest gift of god, so the importance of vision is next to life. As a matter of fact life without sight is meaningless, if blind's life is not properly oriented. Pterygium one of the major ocular problms of the world, was known as: "NAKHUNA" in the antient hindu and tibbi literature.

Pterygia (greek for wings), defined as a degenerative & hyperplastic process in which this is an encroachment of conjunctiva to either side of the cornea in the horizontal meridian, in the inter-palpebral fissure or from both the sides. Clinically it represents an encroachment in the form of a fold of conjunctiva, triangular in shape with conical apex of the head progressing towards the cornea and & in the either canthus of the eye (Duke Elder 1965) it presents four problems to the patients.: 1)Cosmetically 2)Visual disablity 3)Occationally diplopia 4) Recurrences

Pterygium is not a disease of childhood, but it occurs in age group varying from 20 to 70 yrs. Aetiology of the disease remains a mystery upto date. But inflammatory, degenerative, neoplastic metabolic & deficiency factors. Exposure to sunlight, infrared by thermal action, UV rays by abiotic effect. Pinguecula is said to be precursor of Pterygium but nothing hs been proved. The only tretment is excision of the pterygium is still not efficient as recurrence is the main features.

## MATERIALAND METHODS

In the present study cases were selected from agricultural labourers suffering from pterigium attending the eye O.P.D in a tertiary care teaching hospital from nothern India. Each patient was subject to routine general & detailed ophthalmologic examination. The duration, number and site of pterigium was noted. The patients were divided into three groups. Different techniques were planned for each group separately. These were:-

**Technique 1 –** D'ombrains excision with bare scleral technique
**Technique 2 –** D'ombrains excision followed by carbolisation of the bare cornea & sclera
**Technique 3 --** D'ombrains excision followed by 5 hourly instillation of mitomycin-C in strength of 0.4mg/sq.metre for 2 weeks post operative follow up was made weekly upto one month and ten once monthly for atleast 6 months.
**Mitomycin-C –** This is an oncostatic autibiotic isolated from streptomyces & it acts by interfering with DNA/RNA synthesis and thus inhibiting rapidly proliferating cells of normal and neoplastic origin. It also supress granulation tissue formation.

## OBSERVATION

Perygium with special refference to its management in agricultural labourers, 120 cases were observed in 1 year period. Out of 120 cases 86 were observed during summer season (i.e, arpil- september) and 34 were during winter (october- march). The percentage being 71.6% and 28.4% respectively.

**Table 1 Age and Sex Distribution**

| Age(year) | 11-20 | 21-30 | 31-40 | 41-50 | 51-60 | >61 | Total |
|---|---|---|---|---|---|---|---|
| Male | 4 | 22 | 35 | 26 | 7 | 2 | 96 |
| Female | Nil | 5 | 9 | 6 | 3 | 1 | 24 |
| Total | 4 | 27 | 44 | 32 | 10 | 3 | 120 |

The above table shows that incidence of pterygium was more in males and females both, between age group of 21-50 years. Males were more prone to develop pterygium than females, most probably their outdoor activities.

**Table 2 Distribution of occupation**

| Occupation | No. Of cases | Percentage |
|---|---|---|
| Labourer | 39 | 32.5 |
| Farmer | 27 | 22.5 |
| Service holder | 17 | 14.1 |
| House wife | 16 | 13.3 |
| Student | 10 | 8.3 |
| Saw mill worker | 06 | 5.0 |
| Rancher | 03 | 2.5 |
| Fisherman | 02 | 1.6 |
| TOTAL | 120 | |

The above table shows that the incidence of pterygium was more among people who were engeged in outdoor activities like agricultural work.

**Table 3 Results of different techniques of management**

| Technique | Good (n; %) | Satisfactory (n; %) | Poor (n; %) |
|---|---|---|---|
| Technique 1 | 19 (47.5) | 11 (27.5) | 10 (25.0) |
| Technique 2 | 20 (50.0) | 12 (30.0) | 8 (20.0) |
| Technique 3 | 30 ( 75.0) | 8 (20.0) | 2 (5.0) |

Good- No recurrence and good cosmetic result

**Satisfactory-** No recurrence but with a cosmetically undesirable prominent conjunctival scar

Poor- Recurrence of the pterygium

## DISCUSSION

Gerundo (1951) observed highest incidence of pterygium between 30 to 60 years of age. His observation is in quite confirmity with the present study. The higher incidence of pterygium n male in present series (table 1) can be readily explained by the fact that male population is most engages in wage earning i.e; actually they are mostly the agricultural labourers, they exposing their eyes more to obnoxious atmospheric irritants than the female who mostly remain indoors. So far as evaluation of result of different operating techniques in management of pterygium was conserved in Technique-1 Recurrence rate is 525% this is less due short period of followup. The Technique 2 recurrence rate 20% as compared to that of Das & Biparai 1986. In technique 3 recurrence rate only 5% and the result was good in 75% case and satisfactory in 20% of the cases observed during the follow up period 6-12 months (table 3)

It is therfore gratifying to recommend this combined procedure in the treatment of pterygium to avoid recurrence and mental agony and economic loss.

## SUMMARY & CONCLUSION:

**The study highlights the following facts:-**

Patients with pterigium should consult the eye specialist with initial stage of the disease so that if required patient could be kept under consultant survillance. In progressive tipe treatment should be given at the earliest to avoid the interference with vision. The agricultural labourers should use protective glasses for the protection from sunlight, dust and other predisposing factors for pterygium. It is very safe in recommending surgery with mitomycin as a routine treatment for all cases of progressive pterygia to avoid higher rate of recurrence after surgery and thereby minimising the physical and economical discomfort of the labourers as well as saving working days for the nation.

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