

Changing Trends of Demographic Profile in Patients of Pterygium-A Hospital Based Study

DrSujata padhy¹, DrRutayani Dash², PROF.Suchitra Dash³

¹Assistant professor, Dept. Of ophthalmology, MKCGMCH, Berhampur

²3rd year PG, Dept. Of Ophthalmology, MKCGMCH, Berhampur

³HOD & professor, Dept of ophthalmology, MKCG MCH, Berhampur

Background -Pterygium is a degenerative condition of subconjunctival tissue which proliferate as vascularised granular tissue to invade the cornea destroying the superficial layer of stroma and bowmans membrane and whole covered by granulation tissue.the prevalence of pterygium in india vary widely from 0.75% to 10.42%there are numerous studies showing demographic profile and prevalence of pterygium.

Aim -The study was performed to provide information about the changing demographic profile and prevalence of pterygium in southern odisha.it helps us to create awareness about pterygium among the general population.

Material and methods-A retrospective study was conducted in department of ophthalmology from sept.2017 to feb. 2018 for a period of 6months.all the patients having pterygium without any ocular morbidity were included in the studythe demographic rate laterality and site of pterygium recorded.

Observation and result-A total of 354[381eyes]were taken.among them male 34.74% and female 65.25%.55.64% from rural population and 44.35% from urban population were affected age group[>50yrs]were found to be highest47.74%,followed by 30-39 age group28.24%.85.89% were outdoor workers.labourers were found to be affected mostly[43.75%] followed by farmers[29%]. 78.53% having nasal pterygium while 4.80% have double pterygium.

Conclusion -We found that pterygium is is more common in females and outdoor workers and most of them are from urban area.the changing trends of demographic profile might help to create a public awareness and also change the approach towards pterygium patients.

Date of Submission: 17-12-2019

Date of Acceptance: 31-12-2019

I. Introduction

Pterygium is a degenerative condition of the subconjunctival tissues which proliferate as vascularised granulation tissue to invade the cornea,destroying the superficial layers of the stroma and bowman's membrane and whole being covered by conjunctival epithelium[1].The prevalence of pterygium in india vary widely from 0.75% to 10.42% and an overall average in prevalence is 5.2%.[2].It is more common in males ,more common in people living in hot climates.prolong effect of environmental factors such as exposure to sun[ultraviolet rays]dry heat,high wind and abundance of dust,considered as the important cause of pterygium.

Pterygium is associated with factors like age,sex,ethnicity and environmental conditions like outdoor occupations.it is more common in rural population due to environmental conditions and lifestyle,poverity and limited access to health service.Now a days there is changing of trends in demographic profile of pterygium;though it affects in rural population more,the females now suffer this disease more than male.

There are various studies showing the demographic profile and prevalence of pterygium,this study was performed to provide information about the changing demographic profile and prevalence of pterygium in southern odisha.it helps to create awareness about pterygium among the general population.

II. Materials And Methods

A facility –based retrospective study was done in the ophthalmology dept.of MKCG MCH between september2017 to February 2018.out of total 7435 patients with various ocular morbidity who attended opd ;354[4.7%]patients were diagnosed to have pterygium.the demographic data,laterality,site of pterygium were recorded.

All the patients having pterygium were included in this study.patient with pseudopterygium were excluded.

Data were collected from the records in the case file of the patients.the information was collected-age of the patient,gender,demographic area,occupation. The site ,laterality,type of pterygium were also recorded.All the data were tabulated in ms office excel sheet and analysed.

III. Results

Male	Female
123[34.74%]	231[65.25%]
Rural	Urban
197[55.4%]	157[44.35%]

Table 1

Out of 354 patients, 65.25% female and 34.74% males were affected. It shows that the female were affected than males. On a comparison of age group 47.74% of the patients of age group >50 years were affected followed by 30-39 year group [28.24%]. The prevalence was low in <20 year age group [1.69%].

Age [in years]	No.
<20	06[1.69%]
20-29	36[10.16%]
30-39	100[28.24%]
40-49	43[12.14%]
>50	169[47.74%]

Table 2

Pterygium mostly affects the outdoor workers. The study showed 85.87% [both female and males] outdoor workers affected which include labour [43.75%] being the highest; farmers [29.93%], street vendors [20.06%] and others [6.25%]. In other category we have included the people who work in indoor but use public transport; or two wheeler. Though pterygium affects rural population more than urban area; in our study the prevalence is slightly higher [55.64%] in rural area than urban area [44.35%].

Indoor	Outdoor
50[14.12%]	304[85.87%]
Farmer	91[29.93%]
Labour	133[43.75%]
Street vendors	61[20.06%]
Other	19[6.25%]

Table 3

Most of the patients had unilateral pterygium i.e. 92% [327 pts.] and in few cases there was bilateral pterygium [7.62%]. There was no significant difference in the rates of pterygium by side. We found right eye pterygium slightly higher [51.97%] than left side [40.39%]. Nasal pterygium was much more common [78.53%] than temporal [16.66%] and double pterygium [4.80%].

Right eye	Left eye	Both eye
184[51.97%]	43[40.39%]	27[7.62%]
Nasal	temporal	Double
278[78.53%]	59[16.66%]	17[4.80%]

Table 4

IV. Discussion

In India the prevalence of pterygium vary widely from 0.75% to 10.42%; in our study it came 4.7%. The study showed that females were more commonly affected than male. A study by T. Vijay priya et al and Lu et al [5] also reported female at higher risk in comparison to men. In our study female were more because of outdoor activity as most of the female work here as a labour. Most of the women cook by chulah's which might be the explanation of dust exposure and occurrence of the pterygium. In various study it is showed that male have higher prevalence than female [6-8] and a few study showed that there is no difference between male and female. [9] Though various study showed that pterygium is highly prevalent in rural area [10-11]; in our study it is common in urban areas. Most of the people from the rural area are migrating to urban area for searching of work and they are implemented in outdoor activity due to low educational level; that's why there is increasing the prevalence of pterygium in urban area also. Prevalence of pterygium increased with age [>50 years] in our study but now it is changing. The age group between 30-39, which was found to be 28.24%, being the second most common age group to be affected. It is due to various outdoor activities by young workers. The labours at the construction site in urban area mostly belongs to this particular age group. The outdoor workers affected more due to UV exposure, dust, dryness and hot climate [12-17]. Labours, farmers, street vendors affected more in comparison to indoor workers. Vijay priya et al showed that 44% were farmers, Maharajan et al showed that 64.66% of the outdoor workers had pterygium respectively. In our study showed that labour are more affected

than farmers and it mostly due to most of the people of low educational level or illiterate performed to live in urban area and work as a labour at construction site.

In our study unilateral pterygium found to be 92%,and most of them being nasal pterygium.Rohatgi s et al[16]also found most of cases of pterygium belongs to nasal side,similar observation by Krishnaram[18] showed 99% cases are unilateral and nasal. Pterygiums are more common in nasal side due to flow of tear and dust particle move towards nasal side. In our cases double pterygium found to be 4.8%;which was found to be similar in various study.[17]

V. Conclusion

From this study we may conclude that pterygium more common in females,outdoorworkers i.e labourers. Now-a-days urban area is also at risk.The young and middle age people also prone to develop pterygium as compared to older age group.So the changing trends of demographic profile might help to create a public awareness and also change the approach towards pterygium patients.

References

- [1]. Parson's disease of the eye,21st edition;chapter 14;p-
- [2]. MM singh;GV murthy,k venkatram.Astudy of ocular morbidity among elderly population in rural central india,IJO1997,45[1],61-65
- [3]. H.Hanemi et al/journal of current ophthalmology xx[2016]1-5
- [4]. T Vijaypriya et al,IJCEO,April-june 2018,4[2]245-248
- [5]. Lup,chenx,kangy et al.clin experiment ophthalmology2007 828-33
- [6]. ploslone,v.Nangiaet.al.dec2013,volume 8/issue121e82439.
- [7]. Liul.wv.jgenjet al/BMJ.open 2013;3:e003787;DOI10-1136/bmj.open 2013-003787
- [8]. T.y.wong,P.T.foster,American journal of ophthalmology,vol.131,no.2pp176-183,2001
- [9]. S maramula;R.C.khana ,G.N Rao investigative ophthalmology and visual science.vol 54 no8 pp-5359-5366,2013
- [10]. International j.of health care and biomedical research ,vol1,issue 4,july 2013,p297-301
- [11]. Al vuhtani;the prevalence of pterygium Al-khobar;journal of family and community medicine dec-2013/vol20/issue 3
- [12]. LutheraR,Leske MC,et.al frequency and risk factors for pterygium in the Barbados Eye study.Arch ophthalmology 2001;119;1827-1832
- [13]. Maharajan IM,sreshth E,gurung B,kamachariya S.prevalance of and associated risk factors for pterygium in high altitude community of upper mustang,Nepal j ophthalmol.2014;6[11];65-70
- [14]. Durkin SR,Abhary s,Newland HS,Selva D,Aung T,Casson RJ.The prevalence ,severity and risk factors for pterygium in central Myanmar;the meikitila eye study.Br j ophthal,2008;25-9
- [15]. K Krishnaram .prevalence and pattern of pterygium;the international journal of visual ophthalmology and visual science2013;10[1]
- [16]. chavan WM,kambelMG,Giri PA.study of prevalence and socio-demographic determinants of pterygium patients attending at a tertiary care teaching hospital of western maharashtra,India.Int J Res Med Sci 2015;3;846-848.
- [17]. Rohatgi s.pterygium:an epidemiological study in india.Int J healthcare biomed Res.2013;1[4];297-301.

Dr.Rutayani Dash. "Changing Trends of Demographic Profile in Patients of Pterygium-A Hospital Based Study." IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 18, no. 12, 2019, pp 55-57.