



PREVALENCE OF OCULAR DISORDERS WITH SEASONAL VARIATIONS IN TERTIARY CARE HOSPITAL IN SOUTH PUNJAB.

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ABSTRACT... Objectives: To observe the Prevalence of Ocular Disorders with seasonal variations in South Punjab. **Study Design:** Observational descriptive study. **Setting:** Ophthalmology Department of Shahida Islam Teaching Hospital affiliated with Shahida Islam Medical College Lodhran, a tertiary care Hospital in south Punjab. **Period:** January 2018 to December 2018. **Material & Method:** The case records of all consecutive patients seen at the outpatient department (OPD) of Shahida Islam Teaching Hospital, Lodhran from January 2018 to December 2018 were retrieved. The demographic data such as age and sex of the patients were noted. The patient data were collected from the OPD registers at the clinics and analyzed retrospectively. **Results:** A total of 14398 patients were examined out of which male were 46.3% and female were 53.7%. Ocular examination revealed that out of 14398 patients most common ocular morbidity is refractory errors followed by conjunctiva diseases and then lenticular disorders. **Conclusion:** Majority of ocular morbidity were either preventable or treatable. If detection is early in the course, prevalence of ocular morbidity can be greatly reduced.

Key words: Conjunctival Disease, Lenticular Disorder, Ocular Morbidities, Refractory Errors.

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INTRODUCTION

The eye is a unique special sensory organ which exhibits diverse histological structures. The knowledge of normal ocular anatomy and spectrum of pathologic changes that involve these structures is very important for ophthalmologist. The rarity at which these lesions occur complicates the recognition of their presentation. Furthermore, clinical sign and symptoms of ocular malignancies stimulate more commonly occurring benign conditions which pose great difficulties both for treating ophthalmologist and even pathologist. Also there exists variation in pattern and frequency on the basis of geographical locations.¹ A pattern of eye diseases differs in developed and developing countries. The study of pattern of ocular disease is very important because some eye conditions are just causes of ocular morbidity and some may lead to total visual loss.²

There are about 1.5 million children in the world

and more than one million children in Asia alone.^{3,4} Specific diseases are common in certain age brackets, races and occupations.⁵⁻⁷ Cataract is the leading cause of preventable blindness.^{8,9}

Vision is essential for daily activities and any visual impairment is serious and debilitating disability.¹⁰ The prevalence of visual impairment is expected to be higher in the developing countries due to the low level of healthcare services in many of the countries.¹¹ Currently there is very little data on the prevalence of eye diseases in the south part of Pakistan. The purpose of this research was to discover the pattern of eye ailments in ophthalmology department of ophthalmology in Shahida Islam Teaching Hospital.

MATERIAL & METHODS

The case records of all consecutive patients seen at the outpatient department (OPD) of Shahida Islam Teaching Hospital, Lodhran from January 2018 to December 2018 were retrieved.

The demographic data such as age and sex of the patients were noted. The patient data were collected from the OPD registers at the clinics and analyzed retrospectively. A total of 14398 patients attended the OPD, which constituted the sample size of the study. The patients were first seen by optometrist for refraction and visual acuities before turn into the general OPD.

Every patient was examined by a consultant ophthalmologist, who examine the anterior segment with slit lamp and measure measures the intra ocular pressure. The posterior segment examine by direct ophthalmoscope or by 90 D lens after dilating the pupils. Treatment was offered following or the patient may be referred to subspecialty clinics.

RESULTS

The investigation revealed that out of the 14,398 patients 46.3% were male and 53.7% were female (Table-I). Majority of the patients had morbidity in terms of refractive errors which were 44.24%. 12.8% of the patients suffered from Conjunctival diseases, 10.8% patients suffered from cataract, 0.47% suffered from Strabismus, 1.2% patients suffered from Glaucoma and 17.7% suffered from various other diseases (Table-II) (Figure-1).

f=1,m=2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	7,732	53.7	53.7	53.7
	2.00	6,666	46.3	46.3	100.0
	Total	14,398	100.0	100.0	

Table-I.

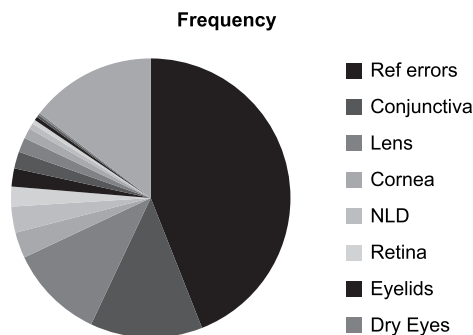


Figure-1.

Diseases of Eyes	14398
Refractive Errors	6370 (44.24%)
Conjunctiva	1844 (12.8%)
Lens	1555 (10.8%)
Cornea	420 (2.92%)
Lacrimal Apparatus	419 (2.9%)
Retina	324 (2.25%)
Eyelids	300 (2.1%)
Trauma	244 (1.7%)
Glaucoma	168 (1.2%)
Uveal Tract	96 (0.67%)
Squint	68 (0.47%)
Optic Nerve	36 (0.26%)
Miscellaneous	2544 (17.7%)

Table-II.

DISCUSSION

Majority of ocular morbidity were either preventable or treatable. Cataract (1555 patients out of 14398) being the second common amongst ocular conditions after refractive errors (6370 patients out of 14398). The first common being conjunctivitis affected by warm climatic conditions (1844 patients out of 14398). If detection is early in the course, prevalence of ocular morbidity can be greatly reduced. A large number of OPD patients were constituted by follow up of cataract surgeries, conjunctivitis and amblyopia as these being leading causes of ocular morbidity.

Children should receive proper eye care in order to avoid vision problems, which could affect their learning ability, personality, and adjustment in school. The complaints related to these eye morbidities may originate from children their parents or even teachers.¹² Errors of reflection are the major cause of blindness in our study because of the fact that people living here are uneducated and belong to labor class and wearing glasses uncomfortable or unsuitable for their work.

There was less hypermetropia (30%) recorded as children less than 5 years were usual ignored until they were sent to school. Presbyopia has also large number of patients in our study 306 out of 6370 because of the professional needs of females who are mostly stitching and sewing

for earning at home (Table-III). This percentage can be compared to other studies carried out with similar data.¹³

Refractive Errors	6370(100%)
Myopia	4077(64%)
Hypermetropia	1911(30%)
Astigmatism	63(1%)
Presbyopia	306(5%)

Table-III.

The commonest ocular disorder after refractive errors in our study is allergic conjunctivitis (Table-IV) vernal keratoconjunctivitis is a seasonally recurrent, bilateral inflammation of the cornea and conjunctiva that occur mostly in young males who most of the time have family history of atopy. The immunopathogenesis may involve both type 1 and type IV hypersensitivity reactions.¹⁴

Treatment should be based on severity of disease and sign on ocular surface. Mild cases may be successfully managed with topical antihistamines. Climatotherapy, such as the use of home air-conditioning and relocation to a cooler environment, can be helpful in many patients. Patients with mild to moderated disease may show a very good respond to topical mast-cell stabilizers. During these exacerbations, intermittent therapy is very effective. Topical corticosteroids can be used relative frequently for 5-7 days and then rapidly tapered off. Steroid-sparing agents have been shown to be effective in many cases, for example; topical cyclosporin. Treatment should be based on severity of disease and sign on ocular surface. Treatment should be based on severity of disease and sign on ocular surface.¹⁵

Conjunctiva	1844
Allergic conjunctivitis/VKC	1272
Infected conjunctivitis	384
Pterygium/pinguecula	188

Table-IV.

A pterygium is a wing shaped growth of conjunctiva and fibro vascular tissue on the superficial cornea. As with pingueculae, the

pathogenesis of pterygia is strongly correlated with UV light exposure, although environmental insults such as exposure to dust, wind or other irritants causing chronic ocular inflammation may also be factor.

Treatment with artificial tears can alleviate associated ocular irritation, but as with pingueculae, long term use of tropical corticosteroids is contraindicated.¹⁶ In or setup treatment offered is pterygium transposition and pterygium excision with conjunctival autograft to reduce the incidence of recurrence.

Cataract is the leading cause of loss of vision and blindness worldwide and is prevalent in both developed and developing countries.¹⁷ We have 1555 patients with lenticular diseases out of which cataract were 1303 (84%).(Table-V).

LENS	1555
Cataract	1303
Aphakia/Pseudophakia	246
Ectopia lentis	06

Table-V.

Globally, the second leading cause of blindness is Glaucoma. It is difficult to define glaucoma precisely, partly because the term amalgamates a wide array of diseases. All types of glaucoma have a characteristic optic neuropathy that is associated with visual field loss as harm advances, and in which intraocular pressure is a key factor that can be modified.^{18,19} The ratio of glaucoma in this study was low because of the noncompliance in therapy and failure of follow up (Table-VI).

Glaucoma	168
Primary	145
Open angle glaucoma	124
Closed angle glaucoma	21
Secondary	23
Lens induced glaucoma	15
Neovascular glaucoma	08

Table-VI.

Corneal infections are 4th common cause of monocular blindness in this study. Corneal ulcer

being 70% of all corneal infections (Table-VII).

Cornea and External Diseases	420
Corneal ulcer	251
Corneal opacity	64
Keratitis	61
Bullous keratopathy	21
Spheroidal degeneration	18
Corneal ectasias	05

Table-VII.

Cornea evaluation was carried out using a slit lamp, microscope and findings were recorded. Detailed documentation of the ulcer was done and recorded on a daily basis. Associated other ocular conditions like hypopyon and impending perforation were noted. After a detailed ocular examination, corneal scraping was performed under aseptic measures from each ulcer using a sterile BardParker blade (No. 15). Common corneal ulcer of fungal origin as trauma with vegetative matter is a serious issue in this part of the tertiary. Treatment was started according to clinical condition.

CONCLUSION

The most common morbidity was found to be refractive errors followed by conjunctival diseases. Warm climate being the reason for aggravation of allergic conjunctivitis which stays year long and incidence of pterygium also is more in this part of the province. So awareness for prevention of these conditions is necessary. Sun glasses caps, ice packs should be distributed amongst the population.

RECOMMENDATIONS

So awareness for prevention of these conditions is necessary. Awareness campaigns advocating the use of Sun glasses, caps and ice pack by the population should be launched and people should be encouraged to use Sun glasses caps and ice packs.




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AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author(s) Full Name	Contribution to the paper	Author(s) Signature
1	Jamila Anwar	Data collection, Analysis and interpretation of data, Drafting of article.	
2	M. Luqman Ali Bahoo	Concept and design of study.	
3	Faisal Ali	Drafting of article.	
4	Kanwal Ijaz	Critical review of article.	