Original Article

Review of Outpatient Department Spencer Eye Hospital (A Study of 1900 Patients)

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Pak J Ophthalmol 2013, Vol. 29 No. 1

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Purpose: To determine the pattern of different diseases among the patients attending the OPD.

Material and Methods: The study was carried out at outpatient department Spencer Eye Hospital from March 2011 to July 2011 and included 1,900 patients. Patients were selected from outpatient department Spencer Eye Hospital through non probability consecutive sampling technique. Relevant history was taken. They were examined thoroughly including detailed slit lamp examination, direct and indirect fundoscopy and refraction. Diagnosis was established and data of the patient was recorded and later on compiled.

Results: Nineteen hundred patients were included in the study, 900 (47.3%) were male and 1000 (52.7%) were female. Most commonly presenting age group among male patients was 60 – 69 years, while most common age group among female patients was 40 -49 years. We observed that the main bulk of the OPD consisted of patients who presented with infectious conjunctivitis (mostly trachoma) (24%) and with cataract (23.1%), followed by those who presented with refractive error (17.4%). Presentation of pterygium and corneal ulcer was 11.0% and 3.02% respectively. Cases of glaucoma and strabismus, were 2.8% and 1.28% respectively. Few patients with vitamin A deficiency and albinism also reported.

Conclusion: Infectious diseases and cataract are more prevalent in this area as compared to other ocular disorders especially of posterior segment. So the available funds should be directed in these lines.

Outpatient departments forms the major component of health care systems in national health services. Successful management of OPD services is costly requiring funding for building itself employment of medical and clerical staff and use of paramedical services.[1,2] Even if an organized OPD setup is available people usually do not present to get the eye care facilities until and unless a potentially blinding emergency is faced. A study conducted at Aravind Eye Hospital, South India to evaluate the utilization of eye care services in rural South India. 5150 randomly selected subjects underwent ocular examinations and previous use of eye care services was collected via questionnaire in order to determine utilization of eye care services in a rural population of Southern India. 3,476 (72.7%) of 5,150 subjects examined required eye care examinations. 1,827 (35.5%) people gave a history of previous eye examinations, primarily from a general hospital (n= 1,073, 58.7%).[3] Another study was done in Andhra Pardesh to understand the reasons why people in rural south India with visual impairment arising from various ocular diseases do not seek eye care. Barriers to seeking treatment among those who had not sought treatment despite noticing a decrease in vision over the past five years were personal in 52% of the respondents, economic in 37% and social in 21%.[4] In spite of the fact that modern technical facilities like phacoemulsification and microincision cataract surgery are available in most parts of the world but old traditional treatment methods like couching are still practiced in certain parts of the world like Africa.[6]

Complications of couching like hypheama, glaucoma and panuveitis are prevalent in these parts of the world.[5, 6]

Spencer Eye Hospital was built in 1940 and has such a location that it drains population not only from central parts of Karachi and Lyari and its associated areas (less privileged / low socioeconomic status) but also caters for the population from the coastal areas as Makran and Balochistan. We Conducted an OPD survey with the objective to determine the pattern of different diseases among the patients attending the OPD.

MATERIAL AND METHODS

The study was carried out at outpatient department Spencer Eye Hospital from March 2011 to July 2011 and included 1,900 patients. It was a hospital based descriptive study All patients who attended the OPD during the allocated time period were included. Patients were selected from outpatient department Spencer Eye Hospital through non-probability consecutive sampling technique. Relevant history was taken.

Patients evaluation consisted of slit lamp examination, direct and indirect fundoscopy and refraction. Diagnosis was established and data of the patient was recorded and compiled later on.

RESULTS

Nineteen hundred patients were included in the study. There were 900 (47.3%) male patients and 1000 (52.7%) female patients. Most common presenting age group among male patients was 60-69 years, while most common age group among female patients was 40-49 years (Table 1).

We observed that the main bulk of the OPD consisted of patients who presented with infectious conjunctivitis (mostly trachoma) 24% and cataract 23.1%, followed by those who presented with refractive error were 17.4%. Presentation of pterygium and corneal ulcer was present in 11.0% and 3.02% of patients respectively. Cases of glaucoma and strabismus were 2.8% and 1.28% respectively. Few cases of Vitamin A deficiency and albinism were also reported (Table 2).

DISCUSSION

The status of eye health care has been evaluated from time to time in our country and steps have been taken to improve it further. In 1980 a WHO consultant Dr. Hugh Taylor was invited to assess the eye health status of the country and according to his report estimated prevalence of blindness at that time was 2%. In addition cataract was the major cause of blindness and there was a gross mismatch of human recourses in the country[7].

Table 1: Age distribution male patients

Age in Years	No. of Patients n (%)
1-9	3 (0.33)
10-19	7 (0.77)
20-29	96 (10.66)
30-39	88 (9.77)
40-49	221 (24.55)
50-59	205 (22.77)
60-69	250 (27.77)
70-79	30 (3.33)

Following this national blindness surveys were done at five year intervals and various steps were taken for the development of eye health care system in the country in the light of these surveys. At present a vision 2020 program has been designed to address priority disease like cataract, trachoma and refractive errors[8]. According to 2nd National Blindness Survey all age prevalence of blindness was 0.9%[9].

Spencer eye hospital was built in 1940. Location of Spencer Eye Hospital is such that it drains population not only from central areas of Karachi and Lyari but and its associated areas (less privileged/low socioeconomic status) but also from Hub, Baluchistan and coastal areas of Makran. Poverty, illiteracy and ignorance prevail in these areas. In addition transport facilities are insufficient. Basic infrastructure is poorly developed and facilities for clean drinking water and sanitation are not up to the mark. This leads to the prevalence of infectious diseases in these areas. 54,150 patients present in OPD of Spencer eye Hospital every year on an average. We conducted a survey to determine the pattern of different diseases among the patients attending the OPD in this area. Our aim was to develop a database of the disease pattern of our OPD so that human resources could be redirected towards more common diseases.

Table 2: Percentage of various ocular presentations at spencer eye hospital outpatient department over a period of 6 months.

Ocular presentaiton	No. of Patients n (%)
Cataract	451 (23.1)
Infectious conjunctivitis (Trachoma 70%, acute bacterial conjunctivitis 30%)	485 (24.8)
Allergic conjunctivitis	50 (2.56)
Glaucoma	55 (2.8)
Trauma	80 (4.1)
Retinal detachment	4 (0.2)
Squint	25 (1.28)
Chalazion	15 (0.76)
Stye	40 (2.05)
Pterygium	215 (11.0)
Corneal Ulcer	70 (3.58)
Chronic Dacrycystitis	30 (1.53)
Endophthalmitis	10 (0.51)
Pthysis bulbi	11 (0.56)
Vitamin A deficiency	6 (0.30)
Diabetic retinopathy	20 (1.02)
Albinism	2 (0.1)
Refractive error (Myopia, Hypermetropia, Astigmatism, Aphakia, Pseudophakia)	331 (17.4)

In our study, the bulk of the OPD (24.8%) consisted of patients who presented with infectious conjunctivitis (mostly trachoma 70% and acute bacterial conjunctivitis 30%). This could be the result of unhygienic living conditions in the locality. The area is lacking in proper sanitation and there is not only deficiency of clean drinking water but also unavailability of water for cleaning purposes. This may lead to high rate of infections.

Different studies have proven that people belonging to lower socioeconomic groups share greater burden of blindness than those belonging to higher socioeconomic groups. Eye disease like trachoma is mostly prevalent in lower socioeconomic strata.[10, 11]

In late 1990 Pakistan was recognized a one of those countries having endemic trachoma, one of the leading cause of blindness in country. It was included in the list of 47 countries that needed priority intervention. Thus Pakistan became the member of global elimination of trachoma program (GET 2020) 2015 has been fixed as the last date for declaring the country free from blinding trachoma.[8]

Second most common presenting disease in our study was cataract in 23.1% patients. Most of the patients presented with mature and hypermature cataracts. Quite a number of patients presented with their vision threatening complications as phacomorphic and phacolytic glaucoma. The cause for this late presentation could be lack of awareness, poverty and lack of transport facilities. According to the results of Second National Survey for blindness all age prevalence of blindness was 0.9%, and cataract was identified as leading cause of blindness. The burden of blindness due to cataract is high (51.5%) and avoidable blindness being 85.4%.[9] Anjum et al found the overall prevalence of bilateral cataract blindness 4.8% in a study of 1,549 patients[12]. Most of them presented with mild complains of itching irritation and watering which just required symptomatic treatment, while others had posterior capsular opacification which was managed by yag laser capsultomy. According to Pakistan National Blindness and Visual impairment survey avoidable blindness due to posterior capsular opacification was 3.6%.[13] 11% patients presented with pterygium. As most of the population in the surrounding areas is engaged in outdoor activities and most of the patients were labourers and field workers, this large presentation of pterygium could be due to excessive exposure to ultraviolet radiations of sun. Ultraviolet radiation UVR-A and UVR-B play most important role in its pathogenesis[14]. Studies have proven that ptreygium is fairly common in Pakistan especially in hot regions of the country[15]. 4.1% patients presented with ocular trauma. Major presentation was of industrial trauma as the hospital is surrounded by an industrial zone. Most of the patients had uniocular injuries and potentially preventable injuries as they were caused by lack of or ignorance towards safety measures.

Ocular injuries are potentially preventable cause of ocular morbidity.[16] More than half million blinding

eye injuries occur every year. There are approximately 1.6 million people blind from eye injuries, 2.3 million with bilateral visual loss and 19 million with unilateral visual loss. Ocular trauma is the commonest cause of unilateral blindness.[17]

Khan et al study shows that negligent attitudes, lack of protective devices and severe aggression were the cause of most of the ocular trauma.[18]

3.58% patients presented with corneal ulcers. Majority of these were acute bacterial ulcers and were the direct consequence of unattended corneal injuries and corneal foreign bodies. Poverty and poor hygienic conditions were additional factors to aggravate the condition.

17.4% patients attended the OPD for refractive errors. These were newly reported cases of refractive errors including myopia, hypermetropia astigmatism in addition to aphakia and pseudophakia. Refraction was done and spectacles were prescribed accordingly. According to Pakistan National Blindness and Visual impairment survey avoidable blindness due to uncorrected refractive errors was 2.7% in our country.[13] Presentation of various types of glaucoma was 2.8%. A portion of this group comprised of those patients who presented with phacomorphic or phacolytic glaucoma while a majority had open angle glaucoma. Few cases of angle closure and pseudoexfoliative glaucoma were also reported.

Allergic conjunctivitis was reported in 2.56% patients vernal catarrh being the most common form. 2.05% patients presented with stye and 0.76% presented with Chalazion. These were either the result of poor hygienic conditions or presented as complication of chronic Blephritis. 1.53% patients presented with chronic Dacryocystitis. Majority of these patients belonged to such remote areas where they could not get treatment. 1.28% presented with various types of squints. Most of these patients were children who required proper evaluation and refraction. 1.02 % patients presented with diabetic retinopathy. According to Pakistan National Blindness and Visual impairment survey avoidable blindness due to diabetic retinopathy was 0.2%[13]. Awareness about proper diabetic control and timely treatment of diabetic retinopathy should be emphasized.

Presentation of endophthalmitis was 0.56% and pthisis bulbi 0.51% respectively. Pthisis bulbi formed 2.7% of unavoidable blindness in Pakistan National Blindness and Visual impairment survey[13].

0.3% patients presented with vitamin A deficiency a fact directly related to poverty and malnutrition. Vitamin A deficiency was recognized as an important cause of blindness among children[19].

Vitamin A distribution program was added to the national immunization program. Patients presenting with retinal detachment were 0.2%. Presentation of albinism was 0.1%. In the light of above statistics it is required that funds and resources should be directed towards more prevalent ocular conditions as infections and cataract and they should be given their due priority.

CONCLUSION

Our study shows that infectious disease and cataract are more prevalent in this area as compared to other ocular disorders especially those of posterior segment. This fact may be the direct result of poor hygienic and sanitary conditions prevalent in this area and poverty. Illitracy and ignorance are additional factors. So the available funds and resources should be directed in these lines. Although less common diseases cannot be ignored since this hospital is a referral center for Lyari and Baluchistan areas.

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