Pattern of Eye Disease in Patients Attending the Jordanian Field Hospital in Gaza Strip

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ABSTRACT

Objectives: The purpose of this study was to describe the pattern of ocular disease among patients who attended the eye clinic of the Jordanian Field Hospital in Gaza Strip.

Methods: This is a retrospective review on patients who attended the above clinic from October 2010 to January 2011. The needed information were taken from the patients' medical records. The following data were analyzed: age, gender, ophthalmic history, visual acuity, examination of eye movements, and anterior and posterior ocular segments.

Results: A total number of 1675 patients were included, out of which 973(58.1%) were females and 702(41.9%) were males. All age groups were seen and showed that females are more predominant than males (male to female ratio of 1:1.4). Ophthalmic examinations revealed the following: refractive errors (19%), lens related disorders (16%), conjunctival disorders (Pterygium/Pinguecula and conjunctivitis) (13%), corneal disorders (opacities, degenerations, keratitis, and keratoconus) (12%), posterior segment diseases (diabetic retinopathy, retinal detachment, and age related macular degenerations) (10.1%), trauma- related conditions (7.1%), Glaucoma (8.1%), lid disorders (5.2%), squint (2.8%), and miscellaneous (6.3%).

Conclusion: This study revealed that refractive error (spectacle requirement) was the commonest presenting disorder in young patients. Cataract (clouding of the natural lens) was the most frequent disorder seen in elderly patients. More female than male patients attended the clinic.

Key words: Pattern, Gaza, Jordanian field hospital, Ocular diseases.

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Introduction

The Jordanian Field Hospital in the Gaza Strip was established in 2009 upon order of His Majesty King Abdullah Bin Al-Hussein. The aim was to support Palestinians under military siege. The hospital provides free medical services including eye care to all people in the Gaza Strip. Over the last two years, the ophthalmic clinic has treated more than 20,000 patients from all age groups. There is a daily outpatient eye clinic which treats more than 40 patients per day over two sessions. This equates to more than 250 patients per week distributed over 10 sessions. This clinic provides a free medical and surgical ophthalmic services by the Royal Medical Services of Jordan.

Many people have eye disorders that result in visual loss. Routine examinations are useful in detecting diseases in which symptoms are few or absent. Knowledge of common eye conditions

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Table I: Pattern of ocular diseases at the Jordanian field hospital in the Gaza Strip.

Disease	No. of pt.	%
Refractive errors	311	18.6
Cataract	263	15.7
Trauma related conditions	119	7.1
Posterior segment diseases	169	10.1
Glaucoma	137	8.1
Corneal disorders	197	11.7
Lid disorders	87	5.2
Squint	48	2.8
Conjunctival disorders	202	12
Miscellaneous	106	6.33
Total	1675	100

Table II: Age and gender distribution of patients having ocular diseases

Age(yr)	Male		Female	
	No.	%	No.	%
<10	69	9.83	96	9.86
10-20	79	11.25	117	12.02
21-30	97	13.81	129	13.25
31-40	106	15.11	145	14.94
41-50	121	17.23	176	18.09
51-60	137	19.51	189	19.52
>=61	93	13.25	121	12.43
Total	702		973	

encourages patients to undergo routine examinations. Increased awareness through education can reduces the burden of eye diseases in a population.[1]

Obvious eye abnormalities that can be seen without the aid of special instruments are known as gross eye disorders. Some gross eye disorders appear serious but do not threaten vision. Other gross eye disorders can lead to permanent vision loss or blindness without appropriate intervention. Early diagnosis and treatment can often preserve sight and correct vision-threatening gross eye disorders.[2] Many eye conditions cause changes in the eye. Though the average person may have a difficult time keeping track of the numerous eye diseases and associated symptoms, a person may focus on a few of the more common signs of eye problems. Knowing some of the symptoms of common eye conditions may encourage you to seek an eye evaluation if you exhibit signs of eye deterioration or disease.

This retrospective review was conducted to identify the pattern of eye disease in the Gaza Strip. This essential concept was to characterize the frequency of ocular diseases in a region which suffers from economic, social, political, and medical problems.

Methods

This is a retrospective review on patients who attended the eye clinic of the Jordanian Field Hospital in Gaza Strip from October 2010 to January 2011. The needed information were taken from the patients' medical records. The following data were analyzed: age, gender, ophthalmic history, visual acuity, examination of eye movements, and anterior and posterior ocular segments

Results

A total number of 1,675 patients were included in our study, out of which 973(58.1%) were females and 702 (41.9%) were males with a male to female ration of (1:1.4).

Table I, shows pattern of ocular diseases at the Jordanian field hospital in Gaza strip, and showed that refractive errors were the most common ocular morbidity among patients attended the eye clinic followed by lens-related disorders.

Table II, shows age and gender distribution of patients having ocular diseases and it showed that females were more predominant and concerned about their eyes than males in all studied age groups.

Table III to Table V, present gender distribution

Table III: Gender distribution of patients having lid- related disorders

Lid related disorders	Male	Female	Total	%
Stye/chalazion	10	15	25	28.7
Entropion	7	12	19	21.8
Ptosis	2	7	9	10.3
Ectropion	4	6	10	11.5
Tumors	5	4	9	10.3
Others*	6	9	15	17.24

* Includes: blepharitis, infectious and allergic disorders

Table IV: Gender distribution of patients having trauma-related disorders

Trauma related disorders	Male	Female	Total	%
Lid injuries	13	16	29	24.4
Ocular foreign bodies	9	14	23	19.3
Rupture globe	10	11	21	17.6
Traumatic cataract	7	10	17	14.3
Traumatic glaucoma	6	7	13	10.9
Others*	11	5	16	13.4

* Includes: chemical injuries and orbital fractures

Table V: Gender distribution of patients having posterior segment diseases

Posterior segment diseases	Male	Female	Total	%
Retinal vascular diseases	34	40	74	43.8
Age related macular degeneration	19	24	43	25.4
Retinal detachment	12	13	25	14.8
Others*	11	16	27	16

*Includes: dystrophies, drug induced retinopathies and intraocular tumors

of ocular diseases (lid-related disorders, trauma-related disorders, posterior segment diseases, respectively).

Discussion

During the winter of 2008-2009 a military operation was launched against Gaza, civilian targets, police stations and the governmental building in Gaza Strip for a period of three weeks aiming to prevent rocket fire into Israeli territory.

Accordingly, we expected to find trauma as the commonest reason behind the observed pattern of eye disease. However the findings showed a pattern similar to that of other parts of the world.

Our study found refractive error to be the commonest eye disorder among children. The frequency was substantially higher than that reported by a study in Nepal which found refractive error in 2.36% of their cohort. [3] The Nepalese work found conjunctivitis as the second most frequent eye problem (1.71%).[3] In contrast, to our study of 1675 patients where the second most noticeable disorder was cataract.

Another Nepalese[4] study reported refractive error as the commonest disorder (22.5%). This was followed by age-related cataract (17.5%) and extraocular diseases (14.9%). Therefore this study has results comparable to our study in which refractive error was observed in 18.57% and cataract in 15.7%.

These findings are, however, different from findings presented by a study contacted in Eye Clinic at Imam Khomeini Hospital of Urmia, which showed the following results: cataract 104 (20.8%), refractive errors 96 cases (19.2%), conjunctivitis 50 cases (10%), eyelid disease 46 cases (9.2%), pterygium 28 cases (5.6%), glaucoma 13 cases (2.6%), cornea disease 12 cases (2.4%), amblyopia 5 cases (1%), dry eye 4 cases(0.8%), strabismus 2 cases (0.4%).[5] These differences could be explained by younger age groups included in our study.

Another study which examined the frequency of ocular diseases across age-groups discovered the following: 42% fell within the 0-30 age group (35.13% in our study), 44 % fell within the 31-60 age groups (52.51% in our study) and 14% fell between 61-90 (12.43 % in our study).

The frequent of ocular disease within this clinic population was: 32.8 % conjunctivitis; 28.8% cataract; 15.5% glaucoma; 11.5% pterygium; 1.8% optic atrophy; and 9.5% other.[6]

In Saudi Arabia,[7] the main finding was that of cataract, occurring alone or with other ocular

pathology, and responsible for most of the visual impairment and blindness. In the West Bank and Gaza strip of the Middle East, toxoplasmosis, optic atrophy and glaucoma have been reported to be the main causes of blindness.[8]

Trauma-related eye problems were more frequent in females when compared with other areas of the World. The most plausible explanation is the air strikes against civilians undertaken by Israeli forces.

Studies undertaken in the Middle East have shown a poor awareness of eye disease. This characteristic of populations increases the regional burden of visual impairment and blindness. There is much scope for healthcare programmers to improve awareness in the general population. This would result in early diagnosis and treatment of eye disease with a widespread benefit for this region.[9-11]

Conclusion

This study revealed that refractive error (spectacle requirement) was the commonest presenting disorder in young patients. Cataract (clouding of the natural lens) was the most frequent disorder seen in elderly patients. More female than male patients attended the clinic.

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