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Original Article

Awareness of contact lens wear in the students of University of Baluchistan

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Purpose: To check the level of awareness in university students regarding precautionary measures in order to use contact lens (CL) to avoid complications and to formulate recommendations about safe CL use in students of Baluchistan University.

Method: A descriptive cross-sectional study was done among the students of University of Baluchistan. A sample of 59 students of University of Baluchistan were included in the study. Examination was done through self-made questionnaire

Results: Total 59 contact lens users were involved in the study. Out of 59 contact lens users 27 (45.8%) use contact lens on daily basis, same percentage wash their hand regularly before using contact lens, 33 out of 59 (55.9%) rub or rinse their case with solution after each use, while 26/59 (44.1%) do not. 52 out of 59 (88.1%) use contact lens solution for cleaning case and contact lens. Out of 59 (88.1%) use contact lens while sleeping, eight out of 59 (13.6%) use contact lens while taking bath. Thirty two out of 59 (54.2%) use contact lens for cosmetic purposes, replace contact lens regularly with new contact lenses. Twenty two out of 59 (37.3%) knew about contact lens use from doctors, while 37/59 (62.7%) knew it from their friends and 29 out of 59 (49.2%) knew about complication of contact lens. Thirty one out of 59 (52.5%) subjects check their lens periodically for presence of scratches, 31 out of 59 (52.5%) were informed about the lifespan of their contact lens at the time of prescription. Out of 59 (5.1%) visited ophthalmologist many times after using contact lens, visited only once and 64.4% (38/59) never visited.

Conclusion: Almost half the students used contact lens on daily basis. A good proportion (almost half) did not wash their hand regularly before using contact lens or rub or rinse their case with solution after each use. A good majority uses contact lens solution for cleaning case and contact lens and similar proportion uses them while sleeping as well. However, very few use them while taking a bath, to avoid glasses, or visited ophthalmologist regularly after using contact lens. Almost half were informed about the lifespan of their contact lens at the time of prescription or knew about complication of contact lens.

Keywords: Contact lens, Awareness

Introduction

Nowadays we are witnesses of significant development of contact lens practice and an increase in the number of patients wearing contact lenses.[1] Myopia is the leading cause of refractive error and can be corrected by refractive surgery, wearing eyeglasses, or using a soft contact lens (SCL) or rigid gas permeable contact lens (RGP).[2] The soft contact lens has gradually become one of the most common approaches employed to correct refractive errors since its initial breakthrough in the early.[3] In 1990s, multifocal and diffraction contact lens were made in an effort for correcting presbyopia.[4] In 2004, it was estimated that 38 million people use contact lenses (CL) in the United States, which has increased to 40.9 million in 2015. Soft contact lenses are more comfortable to use than RGPs as they are made of conventional or silicone hydrogels. Another option is orthokeratology lenses (OKL), a type of RGP, which temporarily flatten the central corneal curvature to reduce myopic refractive error, while compressing the lens, eyelids, and tear film. Usage of OKL effectively controls juvenile myopia development.[5] As contact lenses make direct contact with the ocular surface; they impose shear stress as well as exposure to chemical stress and increase vulnerability to bacterial infection.[6] The frequency of microbial contamination of contact lens storage cases ranges from 30% to 85% during asymptomatic contact lens wear despite the use of contact lens disinfecting solutions.[7]

Materials and Methods

A descriptive cross-sectional study was done among the students of University of Baluchistan. Examination was done through self-design Questionnaire, Data were entered on the computer using the SPSS 20.0 software. The results were analyzed and tabulated using the same software.

Results

Total 59 contact lens users were involved in the study. Out of 59 contact lens users, 27 (45.8%) use contact lens on daily basis, same proportion wash their hand regularly before using contact lens, 33 out of 59 (55.9%) rub or rinse their case with solution after each use, while 26/59 (44.1%) do not. Fifty two out of 59 (88.1%) use contact lens solution for cleaning case and contact lens. Out of 59 (88.1%) use contact lens while sleeping, 8 out of 59 (13.6%) use contact lens while taking bath. Thirty two Out of 59 (54.2%) use contact lens for cosmetic purposes, replace contact lens regularly with new contact lenses. About 53 out of 59 (89.8%) use hard contact lens. About 22 out of 59 (37.3%) knew about contact lens use from doctors, while 62.7% (37/59) knew it from their friends and 29 out of 59 (49.2%) knew about complication of contact lens.

Thirty one out of 59 (52.5%) subjects check their lens periodically for presence of scratches, 31 out of 59 (52.5%) were informed about the lifespan of their contact lens at the time of prescription. Only three out of 59 (5.1%) visited ophthalmologist many times after using contact lens, 18 (30.5%) visited only once and 38/59 (64.4%) never visited after using. Sixteen out of 59 (27.1%) use contact lens to avoid glasses.

Table 1

Do you wear contact lens on daily basis?		
	Frequency	**Percentage**
Yes	27	45.8%
No	32	54.2%

Table 1 shows that about 27 out of 59 (45.8%) subjects of University of Baluchistan use contact lens on daily basis, while 54.2% (32/59) do not.

Table 2

What do use for cleaning o f your case and CL?		
	Frequency	**Percentage**
CL Solution	52	88.1%
Water	7	11.9%

Table 2 shows that about 52 out of 59 (88.1%) subjects of University of Baluchistan use contact lens solution for cleaning case and contact lens, while 11.9% (7/59) use water.

Table 3

The purpose of wearing CL		
	Frequency	**Percentage**
Cosmetic	32	54.2%
Refractive	27	45.8%

Table 3 shows that about 32 out of 59 (54.2%) subjects of University of Baluchistan use contact lens for cosmetic purposes, while 45.8% (27/59) do not.

Table 4

How many times have you visited ophthalmologist after using contact lens?		
	Frequency	**Percentage**
Many times	3	5.1%
Only Once	18	30.5%
None	38	64.4

Table 4 shows that about 3 out of 59 (5.1%) subjects of University of Baluchistan visited ophthalmologist many times after using contact lens, 30.5% (18/59) visited only once and 64.4% (38/59) never visited after using.

Table 5

Do you check your lens periodically for presence of scratches?		
	Frequency	**Percentage**
Yes	31	52.5%
No	28	47.5%

Table 5 shows that about 31 out of 59 (52.5%) subjects of University of Baluchistan check their lens periodically for presence of scratches, while 47.5% (28/59) do not.

Table 6

Do you Know about the complication of Contact Lens?		
	Frequency	Percentage
Yes	29	49.2%
No	30	50.8%

Table 6 shows that about 29 out of 59 (49.2%) subjects of University of Baluchistan knew about complication of contact lens, while 50.8% (30/59) do not.

Discussion

Awareness about contact lens usage is important in university students. Students have proper knowledge about types, materials, advantages and disadvantages about contact lenses[8]. In the recent study in Singapore the preponderance of the respondent chosen of applying daily wear contact lenses which is reliable with the conclusion and most similar related to my study.[9]

A cross sectional survey carried out among 121 contact lens medical students in University of Malaya found that among the females 87% of the population were CL users. Period of usage ranged from 6 months to more than 2 years. Forty three percent of the students used them for cosmetic purposes and almost 13% did not remove them before going to sleep at night. Most of them were aware of the complications and adhered to appropriate hygiene and cleanliness of the lens and its case etc. The study concluded that inappropriate practice of contact lens users was a matter of concern especially among knowledgeable users such as university students. This could mean that complications could be much more in rest of the population. Therefore, much more education and training of contact lens users by the practitioners was needed.[11]

Another study whose results are similar to my study, cites convenience, comfort and cosmetic reasons as the major motive for contact lenses users. Keratoconus was also cited as a medical reason by 1.5% of the contact lenses users.[12] All rigid gas permeable lenses user in the research showed that they had thinning of cornea. These conclusions are also reliable when compared with other studies done on awareness of knowledge about contact lens using in university students.[13]

Conclusion

From this study it was concluded that almost half the students (mostly comprising of females) of Baluchistan university used contact lens on daily basis. A good proportion (almost half) do not wash their hand regularly before using contact lens or rub or rinse their case with solution after each use. A good majority uses contact lens solution for cleaning case and contact lens and similar proportion uses them while sleeping as well, However, very few use them while taking a bath, some use them to avoid glasses, and few visited ophthalmologist regularly after using contact lens. Almost half were informed about the lifespan of their contact lens at the time of prescription or knew about complication of contact lens.

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