



ORIGINAL ARTICLE

Common symptoms of Nepalese soft contact lens wearers: A pilot study



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Received 9 August 2014; accepted 27 December 2014

Available online 7 February 2015

KEYWORDS

Soft contact lens;
Discomfort;
Dry eye;
Contact lens
discontinuation;
Nepal

Abstract

Aim: To determine the common symptoms in current soft contact lens (CL) wearers and their association with other factors among Nepalese population.

Methods: All the current CL wearers who started to wear soft CL in Nepal Eye Hospital between July 2007 and June 2012 were invited for the participation. Frequency of the ten most common symptoms, divided into never, occasionally, frequently and consistent were recorded. Association between degree of symptoms with other factors, e.g. age, gender, profession, cigarette smoking, ethnicity, level of education and duration and wearing modality of CL wear were analyzed.

Results: Out of 129 subjects participated in this study, 67% were female; the mean age of the subjects was 23.9 ± 4.3 years. Ninety seven percent of them had at least one symptom occasionally or frequently or consistently. Discomfort was found in 88.4% of the total subjects. Other common symptoms were foreign body sensation in 73.6%, redness in 65.9%, reduced wearing time in 63.6% and dryness in 62.8%. Symptoms were found occasionally in the majority of subjects. Degree of symptoms was not associated with age, gender, profession, education status, ethnicity of subjects and duration or modality of lens wear ($p > 0.05$) but was positively associated with passive cigarette smoking ($p < 0.001$).

Conclusion: Almost all of the Nepalese soft CL wearers had some types of symptoms at least occasionally. Discomfort was the most common symptom. Degree of symptoms was associated with the passive smoking but not with other factors like age, sex, profession and duration of lens wear.

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PALABRAS CLAVE

Lentes de contacto blandas;
 Malestar;
 Ojo seco;
 Supresión de las lentes de contacto;
 Nepal

Síntomas comunes en los usuarios nepalís de lentes de contacto blandas: un estudio piloto

Resumen

Objetivo: Determinar los síntomas comunes en los usuarios actuales de lentes de contacto blandas (LC), así como su asociación a otros factores, entre la población nepalí.

Métodos: Se solicitó la participación de los usuarios actuales de LC, que habían comenzado a utilizar dichas lentes en el Hospital Ocular de Nepal entre julio de 2007 y junio de 2012. Se registró la frecuencia de los diez síntomas más comunes, divididos entre: nunca, ocasionalmente, frecuentemente y consistentemente. También se analizó la asociación entre el grado de los síntomas y otros factores tales como edad, sexo, profesión, consumo de cigarrillos, etnia, nivel de educación, duración y modalidad de uso de LC.

Resultados: De los 129 sujetos participantes en este estudio, el 67% eran mujeres; la edad media de los sujetos fue de $23,9 \pm 4,3$ años. El noventa y siete por ciento de ellos tenía al menos un síntoma de manera ocasional, frecuente, o consistente. El 88,4% de los sujetos reflejó malestar. Otros síntomas comunes fueron la sensación de cuerpo extraño en el 73,6% de los casos, el enrojecimiento en el 65,9%, la reducción del tiempo de uso en el 63,6%, y la sequedad en el 62,8%. Los síntomas fueron ocasionales en la mayoría de los sujetos. El grado de los síntomas no estuvo asociado a la edad, sexo, profesión, situación educativa, casta de los sujetos y duración o modalidad de uso de las lentes ($p > 0,05$), aunque se asoció de modo positivo a la exposición pasiva al humo del tabaco ($p < 0,001$).

Conclusión: Casi todos los usuarios nepalís de LC blandas reflejaron algún tipo de síntoma, al menos ocasionalmente. El malestar fue el síntoma más común. El grado de los síntomas se asoció a la exposición pasiva al humo de tabaco, pero no a otros factores tales como edad, sexo, profesión y duración del uso de las lentes.

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Introduction

Contact lens (CL) is one of the biomedical devices primarily used for refractive error correction. CL wearers may have significantly better quality of life in comparison to that of spectacle wearers.¹ There are estimated 140 million people in the world wearing CL for the refractive purpose.² And this number is increasing every year³ including in Nepal.⁴

Many of the soft CL wearers encounter clinically significant signs and/or symptoms with their lenses.^{5,6} Ocular symptoms may depend upon the ocular surface health of the CL wearers, lens design, materials and environmental factors. Symptoms associated with CL were found to increase throughout the day in some type of lenses.⁷ Ocular symptoms are the main causes of CL dissatisfaction and discontinuation.⁸ The primary reasons of CL discontinuation were found to be discomfort, dryness and red eyes.⁹ Refitting with new-generation of silicone hydrogel lenses can alleviate some of the common symptoms.⁵ In Nepal the majority of the CL wearers use conventional lenses.^{4,10} Moreover the pollution in city areas, where the majority of CL wearers live, is high.¹¹ Therefore, higher rate of ocular symptoms in Nepalese CL wearers is expected. Such symptoms should be addressed in time for continuous efficient CL wear. Nepalese soft CL wearers, especially with low compliance rate, were found at high risk of developing ocular complications due to high CL case and solution contamination.¹² In a large sample size study recently

conducted in Nepal, we found ocular complications in about 5% of the total soft CL wearers including microbial keratitis in 3% eyes.¹⁰

There is not any standard protocol regarding ocular symptoms of CL wearers. Some researchers considered few symptoms while others included a large number of symptoms in their studies.^{13,14} Some researchers have graded each symptom into four grades depending upon the frequency of symptoms.¹³

To the authors' knowledge, no study has been conducted in Nepal regarding symptoms associated with CL wear. The purpose of this pilot study was to find the common ocular symptoms in Nepalese soft CL wearers. The results of this study may be helpful to address the causes of CL discontinuation and to improve quality of life of Nepalese CL wearers. Also the findings of this study might be helpful in future studies in symptoms in soft CL wearers in this region.

Methods

A cross-sectional study was conducted including all the current soft CL wearers who started to wear CL from Nepal Eye Hospital (NEH) between July 2007 and June 2012 (five year period). NEH is one of the four tertiary eye hospitals located in Kathmandu which is the most populated and polluted city of Nepal.¹¹ Besides the general patients, people wishing to wear CL as well as patients referred by other eye care practitioners for specialty CL (e.g. keratoconus, scleral) visit

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