

Perception and Scenario of Contact Lens Use in Developing Countries like Nepal

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Contact lenses have been making a huge difference to the life of their wearers, providing a certain level of freedom that traditional glasses are unable to. Their existence has been a boon especially for those living with refractive or cosmetic ramifications, as sometimes with contact lens use it is impossible to judge if a person is visually impaired or has significant cosmetic concerns. Nowadays, beside their therapeutic and refractive use, contact lenses have been sought-after cosmetic enhancement of the eye. Although the use of contact lenses has been preceding ahead of other means of refractive corrections in developed countries, their use has been stigmatized and severely misunderstood in developing countries like Nepal. Could it owe to lack of knowledge on contact lenses among the patients or are we, eye care professionals, failing them due to our ineptitude to provide proper patient education on contact lenses?

Contact lens use is very common. It has been estimated that about 2% of the world's population use contact lenses [1-3]. It's use is much more popular in developed countries than in developing countries. The application of contact lenses is ever growing in Nepalese population; however, no studies till date have been reported to explore contact lens-wearing habits, compliance and issues of hygiene in contact lens wearing population [4]. For over 100 years, contact lenses have been used primarily to neutralize refractive errors around the world. In Nepal, they have achieved reasonable clinical success only in the last few decades, full-fledged benefits are yet to be achieved. Even from an economic point of view, contact lenses constitute a profitable industry here in Nepal.

Contact lenses are prescribed in cases where spectacle cannot address the issue such as in high refractive errors [5,6], anisometropia [5-7], aphakia [8], keratoconus [9,10], corneal irregularities [10,11] and many more. Beside these, contact lenses have also been used for visual rehabilitation. A successful visual rehabilitation using a rigid gas permeable (RGP) contact lens has been reported from Nepal in a nonophthalmic patient presenting with

retinal dystrophy [12]. Contact lenses have improved the quality of life not only by correcting refractive errors but also by providing better appearance and less restriction in activities [13].

If the scenario of contact lens use in Nepal is to be analyzed, their uses are severely stigmatized, full of prejudices. The initial stigma for the wearers are likely to be from their parents themselves, who are unaware of their benefits but readily dictate their potential threats. People mostly believe that contact lenses are more expensive in comparison to traditional glasses. This may be true for some extent, but not always. Also, people tend to seek for contact lenses which cost them less and thus fall in the pit-hole of low grade contact lenses with less oxygen transmissibility. Devoid of proper counselling and instructions, these people are prone to contact lens related complications. Normally, people buy lenses from optical shops without undergoing proper contact lens trial. Many optical shops sell contact lenses without proper prescriptions. Nowadays due to increased demand of "decorative" contact lenses, coloured contacts are even sold in cosmetic shops without any authorizations. Nowadays, contact lenses are even found on online shopping lists with "buy one get one free" offer. Commercialization is making its use more pathetic. Even among the contact lens wearers, they seek lenses that can be worn for maximum hours or even over-night but wish to pay least. Extended wearing of low- grade contact lenses not only cause discomforts [14] but ocular complications like corneal thinning, corneal neovascularizations [15], dry eyes, keratitis [16], papillary conjunctivitis [17] etc. Ill hygiene while handling contact lenses further adds to the complication, resulting in negative attitude towards contact lenses. The wearers barely know about contact lenses they are wearing. Patient education on the material, type, contact lens specification is scarcely found. Moreover, contact lens practice is not much satisfactory. Even few of top-ranked eye hospitals in Nepal don't have fully equipped contact lens clinics, or no contact lens clinics at all! Similarly, experienced contact lens practitioners are scarce, leading contact lens practice in the hands of neophyte practitioners. Our in-

ability to impart proper contact lens care and education may be the cause of poor compliance or dropouts among users. Non-compliance with contact lens wear and care procedures result in wear of unsuitable contaminated contact lenses which may reduce wearing time, reduce the comfort and may compromise the eyes [4].

Contact lens-related problems are common and can result in severe sight-threatening complications or contact lens drop out if not addressed properly. Unfortunately, contact lenses can cause complications that are disappointing for the patients, forcing them to switch from habitual mode of vision correction to other modalities if possible [18], which are not always simple or complication-free. Since contact lens is one of sub-specialties of Optometrists, it is necessary for us to revert the scenario of contact lens practice in Nepal. The mitigation measures should be started right from the practitioners. One of the probable solutions could be proper patient education on contact lens materials, proper hygiene, replacement schedules, and proper therapeutic relationship with users to increase compliance. Apart from theoretical counselling, lens removal and insertion can be practically shown by practitioner in office and the ability to remove and insert the lens properly should be assessed before dispensing contact lens. This not only helps to educate the patient but also minimize the number of ocular traumas that can occur while inserting or removing contact lens from the cornea. Educational videos on contact lens hygiene made available in social medias may help to aware users. Management of the mild contact lenses related complication can be taught, which lessens the frequent hospital visits but for any moderate-severe complications, the patients must be instructed for hospital visits. Even without any contact lens issue, regular follow ups should be mandatory for all users.

To conclude, contact lens practice in Nepal is still not good and satisfactory. Though, the use of contact lens and its availability is increasing with more world leading brands introduced, lack of strong laws and regulations against malpractice, patient's unawareness and hunting for cheaper products, lack of contact lens experts and their services are dragging the flourishing of healthy contact lens practice in developing countries like Nepal. To flourish contact lens practice is our paramount responsibility and that can be done by bridging the gap between the practitioner and the user. More epidemiological studies regarding contact lens use, practice, complications and compliance are needed to analyze the scenario of contact lens practice in Nepal.

Bibliography

1. Fonn D. "Targeting contact lens induced dryness and discomfort: What properties will make lenses more comfortable". *Optometry and Vision Science* 84 (2007): 279-285.
2. Barr J. Annual report. Contact lens spectrum (2004).
3. Science Daily. "Contact Lens" (2020).
4. Pradhan A., et al. "Contact lens compliance among soft contact lens users". *Guoji Yanke Zazhi* 17.5 (2017): 834-840.
5. Tan DTH., et al. "Medical applications of scleral contact lenses: 2. Gas-permeable scleral contact lenses". *Cornea* 14 (1995): 130-137.
6. Tan DTH., et al. "Medical applications of scleral contact lenses: 1.A retrospective analysis of 343 cases". *Cornea* 14 (1995): 121-129.
7. Pullum KW and Buckley RJ. "A study of 530 patients referred for rigid gas permeable scleral contact lens assessment". *Cornea* 16 (1997): 612-622.
8. Aasuri MK., et al. "Management of pediatric aphakia with Silsoft contact lenses". *CLAO Journal* 25 (1999): 209-212.
9. Abdalla YF., et al. "Synergeyes lenses for keratoconus". *Cornea* 29 (2010): 5-8.
10. Arumugam AO., et al. "PROSE for irregular corneas at a tertiary eye care center". *Eye Contact Lens* 40 (2014): 71-73.
11. Lee JC., et al. "Functional and visual improvement with prosthetic replacement of the ocular surface ecosystem scleral lenses for irregular corneas". *Cornea* 32 (2013): 1540-1543.
12. Pradhan., et al. "Contact lenses in BL Nanophthalmos". *Nepalese Journal of Ophthalmology* 8.16 (2016): 178-181.
13. Porisch E. "Football players' contrast sensitivity comparison when wearing amber sport-tinted or clear contact lenses". *Optometry* 78 (2007): 232-235.
14. Dumbleton K., et al. "The TFOS International Workshop on Contact Lens Discomfort: Report of the subcommittee on epidemiology". *Investigative Ophthalmology and Visual Science* 54 (2013): TFOS20-TFOS36.

15. Papas E. "Corneal vascularisation and contact lenses". *Archivos de la Sociedad Espanola de Oftalmologia* 81 (2006): 309-312.
16. Fleiszig SMJ. "The pathogenesis of contact lens-related keratitis". *Optometry and Vision Science* 83 (2006): 866-873.
17. Raju K. "Contact Lens Induced Papillary Conjunctivitis- Review and A Case Report from Nepal". *Journal of Ophthalmology* 4.1 (2019): 000172.
18. Walker MK., et al. "Complications and fitting challenges associated with scleral contact lenses: A review". *Contact Lens and Anterior Eye* 39 (2016): 88-96.

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