

Customized Silicone Hydrogel Lens-A Case Study

Pratyush Dhakal* and Amrita Samanta

Advanced College of Optometry and Health Sciences, Navi Mumbai, India

*Corresponding author: Dr Pratyush Dhakal, Department of Optometry, Advanced College of Optometry and Health Sciences, Navi Mumbai, India, E-mail: pratyush001@hotmail.com

Received date: June 03, 2017; Accepted date: October 31, 2017; Published date: November 03, 2017

Copyright: ©2017 Pratyush D, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract:

We report a case in which customized contact lens were fitted in eyes of a high hypermetropic patient. Initially patient was using a readily available contact lens but complained about not being able to tolerate those lenses. In slit lamp examination over the old contact lens revealed those lenses were too loose and was holding when patient blinked. The symptoms resolved after custom made silicon hydrogel lens were given to the patient. These findings indicate that customized contact lens can help in certain high refractive error patient where ready stock contact lens may not be helpful.

Keywords: Contact lens; Silicone hydrogel; Customized contact lens

Introduction

Though not of many years old customized silicone hydrogel is still in its infancy in India. We convinced patient for RGP lens use but she could not tolerate it even after 1 month period [1]. Then we tried with customized Silicone Hydrogel lens which gave a very positive feedback and created new hope.

When there is a high refractive error where few patients don't readily agree to use RGPs and prefer using soft contact lens and as a practitioner you see there is no significant astigmatism to prescribe for RGP then you are bound to use contact lens of limited power [2-4].

A young patient of age 21 came to our clinic for her regular eye checkup and had an enquiry if she could get rid of glasses. After her refraction we found she had High hypermetropia amounting to +11.00/+1.00 x 180 in both eyes with best corrected visual acuity of 20/40 in both eyes as well. She had a history of using contact lenses which she was very uncomfortable using [5]. The patient had no significant ocular history, such as trauma, amblyopia or strabismus and no family history of keratoconus [6]. Patient was earlier using contact lenses which were very much uncomfortable and she wished if her thick glasses could be removed permanently. Owing to her request she was advised to undergo corneal topography, pachymetry and A-scan.

A complete ophthalmologic examination was unremarkable. Placido disc based corneal topography (Alcon) revealed a steep corneal surface. This area appeared suspicious, especially the keratometric diopter average was 49.6 in right eye and 49.3 in left eye. Topography stated the patient has abnormal cornea curvature but no thinning or keratoconus suspect [6]. Corneal pachymetry was 526 and 528 in right and left eye respectively. Her axial length showed just 17.16 mm in right eye and 17.12 mm in the left eye which explains her high hypermetropia. Her anterior chamber (A/C) depth was 3.53 mm in right eye and 3.54 mm in left eye (Figure 1).

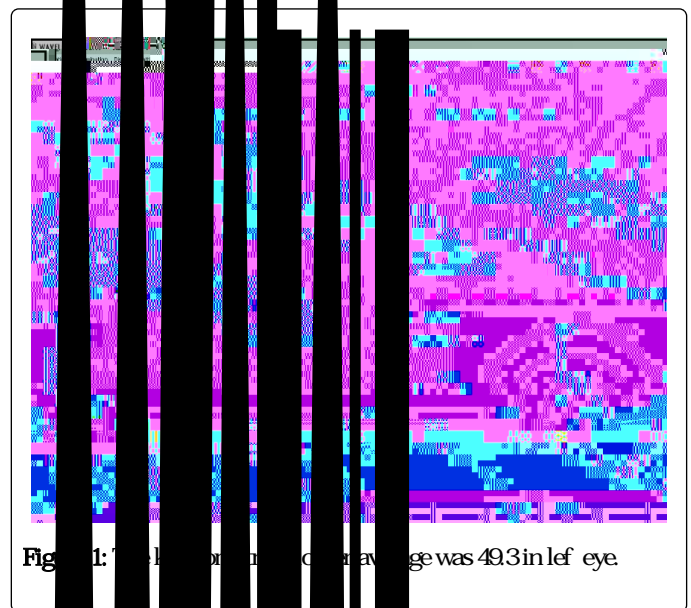


Figure 1: The keratometric diopter average was 49.3 in left eye

After seeing the results, we prescribed various options to the patient.

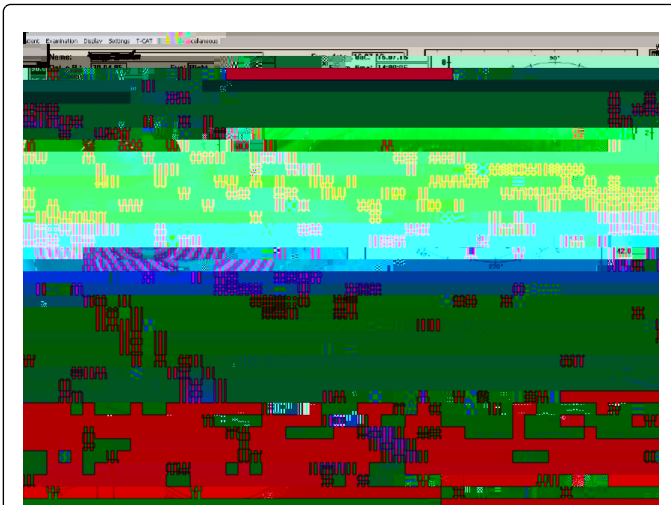


Figure 2 The keratometric diopter average was 49.6 in right eye

A custom made silicon hydrogel contact lens was advised to the patient in detail and she agreed to use it. A customize lens was ordered of following measurement (Table 1).

	Right eye	Left eye
POWER	13.5	13.5
BASE CURVE	7.7 mm	7.7 mm
DIAMETER	14 mm	14 mm

Table 1: The final measurement of the contact lens ordered

After when her new contact lens fitted in her eyes it was very much well fitted and she was very happy with the fit and comfortability of the new lens. Her visual acuity with the contact lens was 20/40 N6 in both eyes. After 1 week of follow-up the patient was happy and satisfied with the new lens [8-14].

Discussion

In case presented the amount of hypermetropia is very high. Thus