

THE ART OF SOFT PROSTHETIC CONTACT LENSES

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Abstract

Case report of a patient with significant corneal opacity who was successfully fit with soft prosthetic contact lenses to deliver therapeutic and cosmetic improvement.

Case Report

This is a case study of a monocular patient who was previously unsuccessful with a soft lens fit as a result of redness, dry eye and discomfort. She presented to the clinic with an old contact lens in her right eye. The patient had a history of trauma with a belt in the right eye and developed glaucoma after being lost to follow up visits which eventually left her blind and cosmetically frustrated. Due to these factors, she was unhappy with her redness and cosmesis and wanted a contact lens to provide therapeutic and cosmetic improvement.

Introduction

Soft prosthetic contact lenses provide cosmetic, therapeutic and psychological benefits for patients, particularly for those who have scarred corneas, irregular irises, and disfigured eyes resulting from trauma, glaucoma, infections, surgical complications and congenital abnormalities. Along with improvements in cosmetic appearance, the lenses can help block light and reduce visual disturbances that can cause pain, photophobia, double vision, and discomfort.



Methods & Materials

The patient's right eye is a non-seeing eye, to which pupil occlusion was requested. The patient's cornea was highly irregular, and was up to 70D steep. An image of OS (normal cornea) was included for color matching trials. Due to the steepness of her cornea, a few different base curve lenses were trialed on her.

**Her keratometry values were:
OD 62.40D @ 88 ; 73.82 @ 178
HVID of normal cornea to match: 12.2 mm
Ideal pupil size: 4 mm**

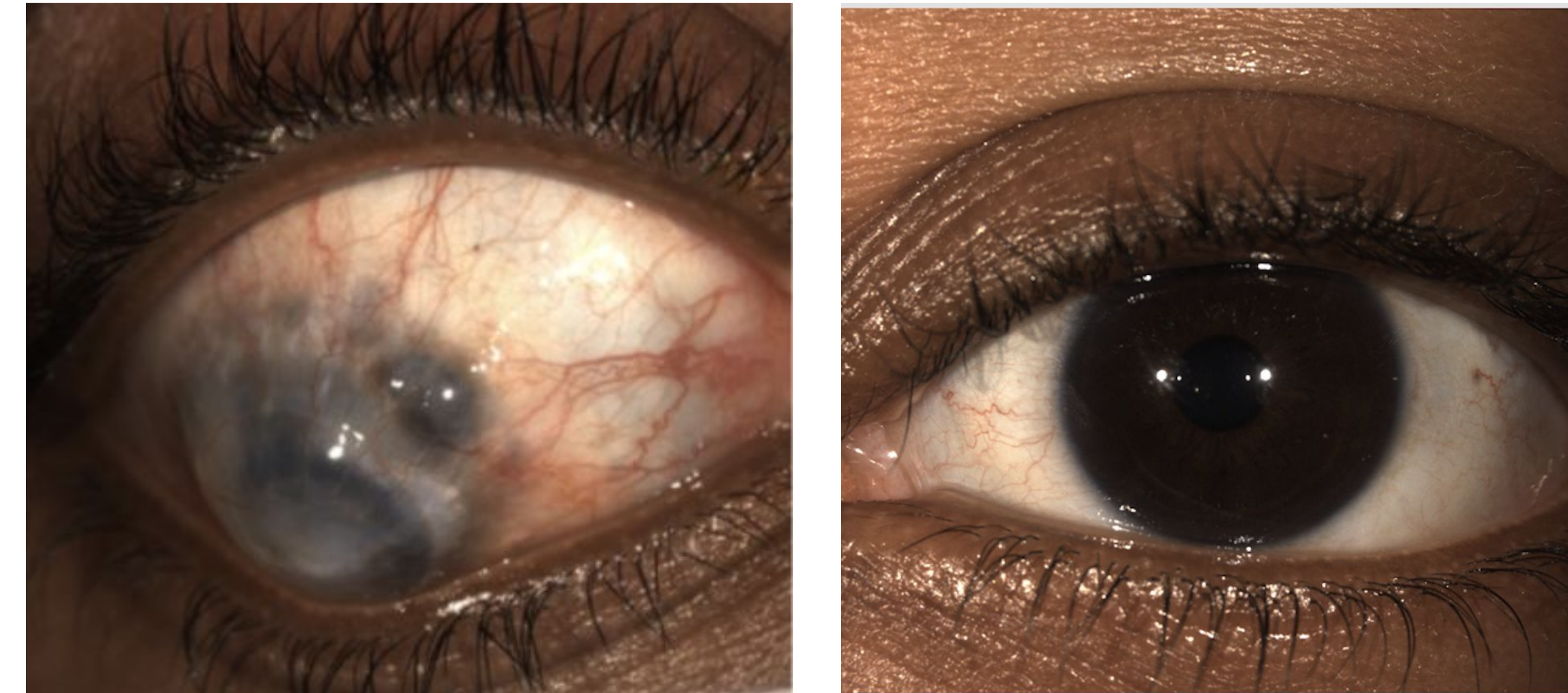
Methods & Materials cont.



Her right eye had moderate conjunctival injection, total corneal opacification with neovascularization 360 degrees with a deep localized central scar, and scleral thinning 360 degrees.

Several different kinds of lens options are available such as transparent tinting, standard opaque designs, and custom hand-painted depending on therapeutic and cosmetic expectations.

Results



Her OS pupil size, HVID of normal cornea, along with photos were used to select a hand-painted soft prosthetic contact lens for her right eye with pupil occlusion and clear and color match trials, which was evaluated over a couple of visits and dispensed successfully.

Discussion

The soft prosthetic contact lens was effective in improving patient cosmesis and quality of life post ocular trauma. It is imperative to be mindful of patient expectations when it comes to cosmesis as a primary goal. With current improved technology, hand-painted soft prosthetic colored contact lenses may be similar in color enough from a distance but may not be an exact match up close. Soft prosthetic contact lenses can help relieve the emotional trauma and impact while providing therapeutic care for patients with multitude of ocular complications. By fitting patients with custom-made soft prosthetic contact lenses, we can provide a solution that offers comfort and a long list of significant benefits by managing patient expectations.

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References

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