ECLSO 2026 CONGRESS
The European Society of Contact Lenses and Ocular Surface

Scleral Contact Lens Application in a Pseudophakic Patient with Traumatic Corneal Scar and Visual Impairment

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PURPOSE

To present the visual rehabilitation achieved with scleral contact lens (SCL) application in a pseudophakic patient with reduced visual acuity due to traumatic corneal scarring.

CASE

A 24-year-old male presented with decreased vision in the left eye. His history included traumatic corneal laceration repair and subsequent phacoemulsification with intraocular lens implantation.

REPORT

- Best-corrected visual acuity (BCVA) was 1.0 in the right eye and 0.2 in the left.
- Autorefraction could not be obtained in the left eye due to central corneal opacity.
- Corneal tomography demonstrated localized steepening and irregular astigmatism in the left eye (Figure 1).
- Slit-lamp examination revealed a linear corneal scar extending from 10 to 4 o'clock and a well-positioned intraocular lens (Figure 2). Fundus examination was unremarkable.
- Due to the patient's age, active lifestyle, and anticipated poor tolerance of rigid gas permeable contact lenses (RGPCLs), a SCL was trialed (Figure 3-4).
- The lens with the best fit and visual outcome had the following parameters: BC 7.5 mm, diameter 16.3 mm, vault 4600 µm, power -4.50 -1.00×10, stabilization axis 35°. With this SCL, BCVA improved from 0.2 to 0.8 in the affected eye.

CONCLUSION

Traumatic corneal scarring can significantly reduce visual acuity by affecting both the optical axis and inducing irregular astigmatism. SCLs provide a fluid reservoir that masks corneal irregularities and improve visual outcomes. They are a successful option in patients intolerant of RGPCLs, especially those with post-traumatic corneal irregularities.

References:

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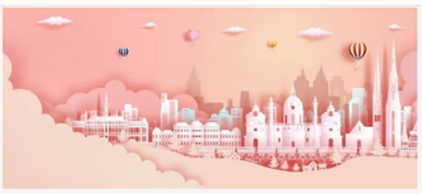

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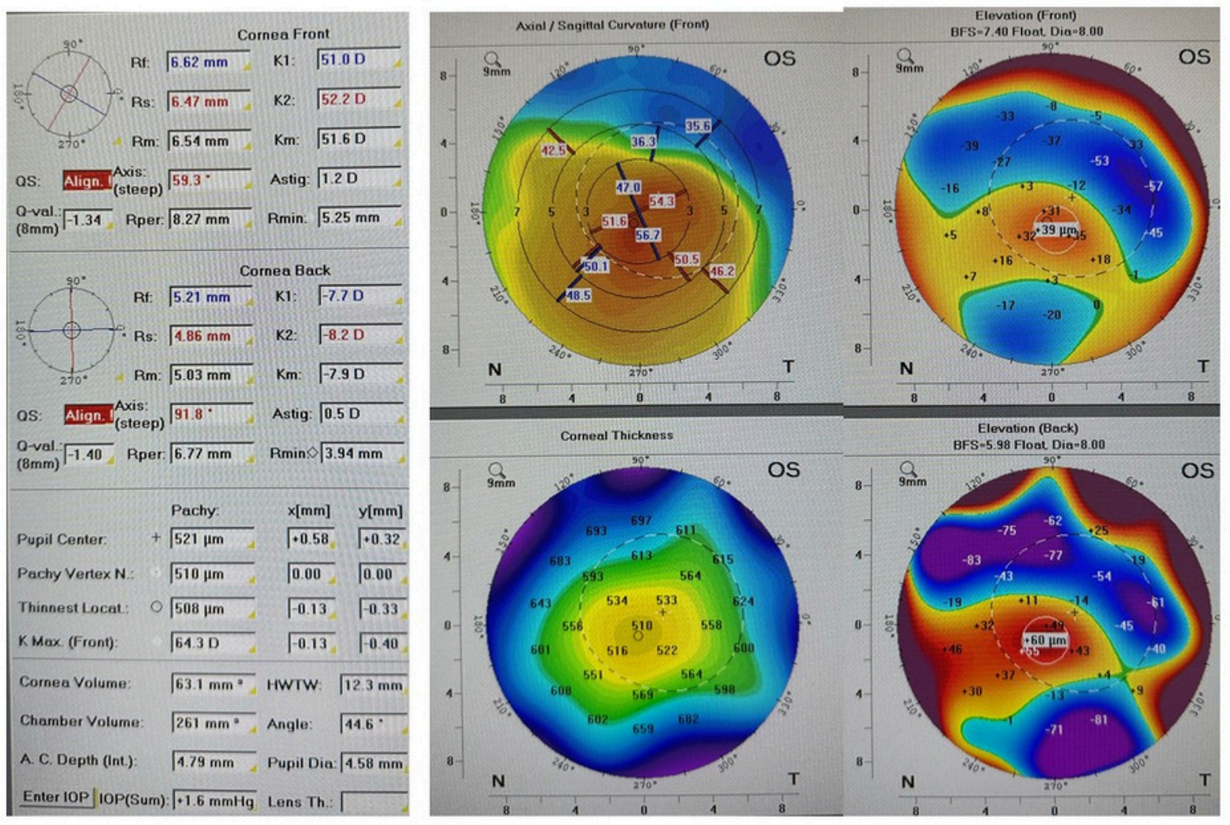

FIGURE 1

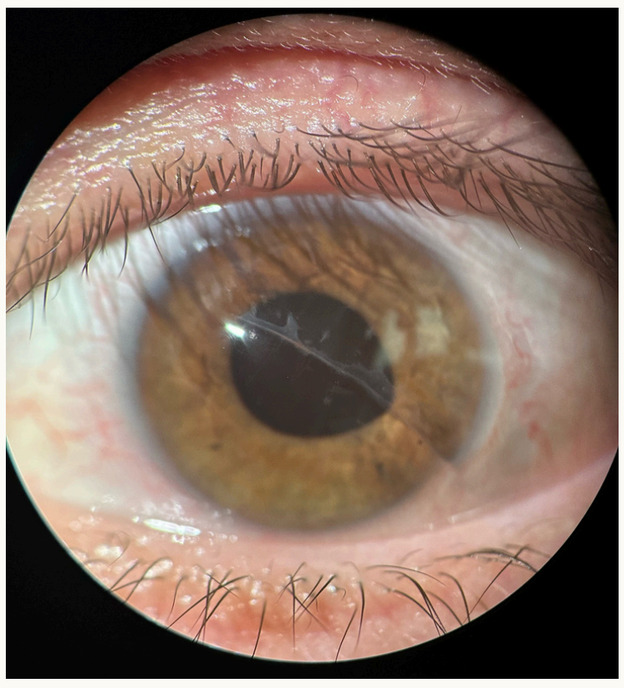

FIGURE 2

FIGURE 3

FIGURE 4