INTRODUCTION

Microcornea is a rare condition where either unilateral or bilateral corneal diameter is less than 10mm, due to arrested growth of the cornea during development. This condition is associated with many systemic and ocular conditions inclusive of Ehlers-Danlos, Marfan’s, Rieger’s, Turner’s syndromes, nanophthalmos, glaucoma, cataracts, and cornea plana. In the contact lens patient with microcornea, a cornea plana poses a greater challenge, as K readings are commonly very flat, in the range of 30-35D.

DISCUSSION

The challenges of fitting a microcornea can be overcome with multiple variations of lenses, including a reverse curve geometry hard lens. We utilized Blanchard’s Refractive Surgery Specific (RSS) lens design which has a flatter central base curve and a steeper mid-peripheral curve. This lens is indicated for an oblate corneas, which are typical after refractive surgery. Due to the irregularity present in this case, proceeding with this lens design was a creative solution for this patient.

CONCLUSION

Microcorneas pose a difficult challenge for the contact lens practitioner, which can be overcome using reverse geometry lens designs. In our patient, the aim was to improve the fit of the current GP lenses to reduce the chance of further corneal compromise. Although the final fit is not aligned with a textbook worthy result, we determine our end result provided adequate fit, comfort and vision for our patient.

REFERENCES