

Case Series: Complications of Lagophthalmos Resolved with Scleral Lenses

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INTRODUCTION

Lagophthalmos is a condition characterized by the inability of the eyelid to completely close. Prolonged lagophthalmos causes exposure keratopathy, leading to severe desiccation of the ocular surface. It occurs secondary to numerous conditions including, but not limited to cranial nerve palsies, trauma, infection and iatrogenic diseases.¹

CASE #1

A 41-year-old Caucasian female presents with severe redness and irritation in both of her eyes (OU). The patient's ocular history reveals Sjogren's disease. Her medical history is remarkable for myotonic dystrophy. Her ocular medications include Restasis two times a day (BID) OU and Lumify BID OU. Slit-lamp examination reveals lagophthalmos, mucous discharge and 2+ diffuse injection OU. Her right eye has a trace posterior subcapsular cataract (PSC) while her left eye has a 2+ PSC. She was scheduled to have cataract surgery OS followed by a scleral fit OU for improved comfort. She was fit in the Onefit Med scleral OU and on subsequent follow-ups, she reported improved comfort with decreased redness and irritation.

CASE #2

A 61-year-old Caucasian female presents with exposure keratopathy OU. The patient's ocular history reveals lagophthalmos secondary to a blepharoplasty OU. Her medical history is remarkable for depression for which she takes Prozac. Her ocular medications include Oasis Tears four times a day OU. Slit-lamp examination revealed lagophthalmos and 1+ diffuse inferior superficial punctate keratitis OU. She has inferior neovascularization and large dense mucoid plaques OS>OD. She was fit in the Zenlens RC scleral OU and reported immediate relief.

FIGURE 1
Scleral lens OD completely vaulting the cornea providing 247um of tear fluid reservoir.

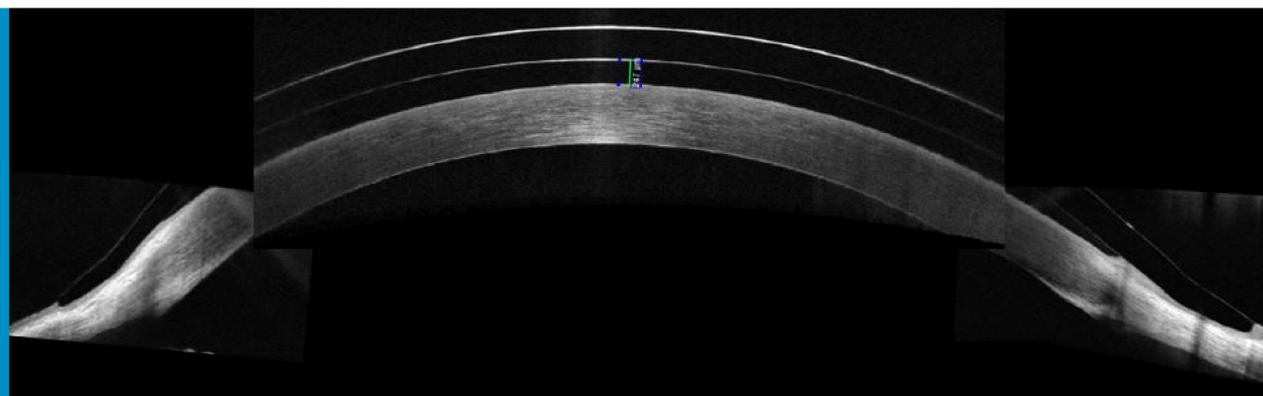


FIGURE 2
Incomplete closure of the lid OS causing inferior corneal show.



FIGURE 3
Dense linear build-up of mucoid plaques inferior OS where the lids don't fully close.



DISCUSSION

Prolonged lagophthalmos can quickly cause serious ocular surface desiccation that requires intervention.² Treatment begins with the least invasive options, but for severe ocular surface disease, patients may ultimately be faced with more involved surgical solutions like tarsorrhaphy.³ Scleral lenses is an excellent option that provides lasting coverage of the ocular surface and is often underutilized. By completely vaulting the cornea, scleral lenses provide a tear layer that constantly bathes the cornea in fluid preventing dryness and associated symptoms while preventing the need for surgical intervention.³

CONCLUSIONS

Although there are many unique presentations of lagophthalmos, associated signs and symptoms are similar. Scleral lenses provided an effective non-invasive management option that is often forgotten.² They provide clear vision with all-day comfort that many patients with severe ocular surface disease due to lagophthalmos haven't experienced in years.

REFERENCES

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