

Severe Dry Eye Disease with Sjögren's Syndrome

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INITIAL PRESENTATION

A 78-year-old female was referred to the clinic for severe dry eye. Her chief complaints were red, burning, itchy eyes, impaired vision, and light sensitivity. She was an avid reader and had not been able to read for over a year. Her current medications included artificial tears every one to two hours and erythromycin ointment twice daily. She had a history of cataract surgery approximately eight years ago and was diagnosed with rheumatoid arthritis more than 20 years ago.

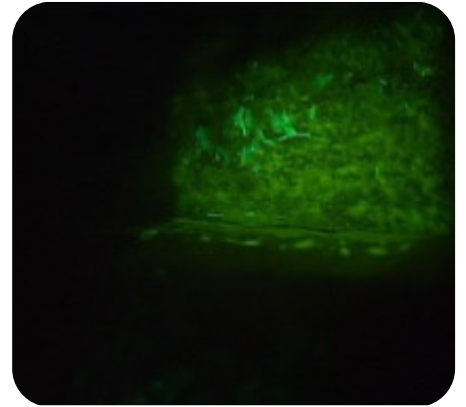
ENTRANCE EXAM

VA was 20/100 OU and with pinhole testing improved to 20/80 OD and 20/60 OS. Osmolarity testing revealed elevated osmolarity of 329 in the right eye and 3336 in the left. Slit lamp examination showed grade 3+ corneal staining and conjunctival staining. In the right eye, grade 2 conjunctival injection and stage 1 MGD were observed. Her tear meniscus height was relatively low.

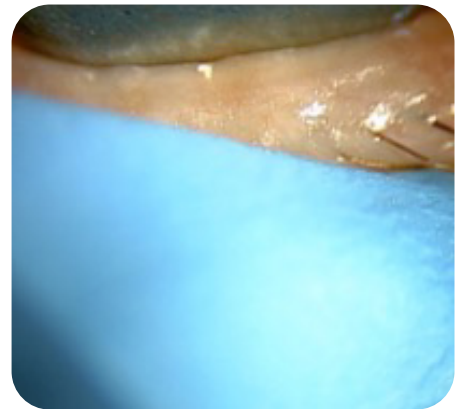
TREATMENT PLAN

The patient was diagnosed with keratoconjunctivitis sicca (KCS) and superficial punctate keratitis (SPK). A lab test for Sjögren's Syndrome was ordered and later returned positive. She was also tested for neurotrophic keratitis (NK) by evaluating corneal sensation with dental floss. Her readings showed diminished sensitivity in most quadrants but not complete NK.

She was prescribed steroid drops four times daily for two weeks and then twice daily for two weeks, an HA-based preservative-free artificial tear as needed, vitamin A ointment two to three times daily, and an omega fatty acid nutritional supplement.



ENTRANCE EXAM
Grade 3+ Conjunctival Staining



ENTRANCE EXAM
Stage 1 MGD in the Right Eye

FOLLOW UP

The patient returned a month later for a follow-up exam. Minimal improvement in symptoms was observed, and VA was still significantly reduced at 20/80-1 OD and 20/60-1 OS. Osmolarity was 323 in the right eye and 328 in the left. Her MGD had worsened to stage 2, corneal and conjunctival staining remained at 3+, and grade 2 inadequate lid seal (ILS) was observed.

I started the patient on serum tears at 20% concentration twice daily. She was also given another round of steroids for four to seven days to control flare-ups and told to continue with the vitamin A ointment every night at bedtime.

Two months later, she felt her eyes were doing better. VA was 20/50-2 OD and 20/60-2 OS. Osmolarity had improved to 313 in the right eye and 322 in the left. Here MGD was still at stage 2, but corneal and conjunctival staining was slightly better (2- and 2+ respectively). A diagnosis of ILS was confirmed. I increased the utilization of serum tears from twice to six times daily, continued the use of vitamin A ointment and steroids for flare-ups. We discussed punctal occlusion with 180-day dissolving punctal plugs given her reduced tear meniscus height.

Six weeks later, she reported a noticeable improvement in symptoms. VA had improved to 20/40+2 OD and 20/60-1 OS. Osmolarity, MGD and corneal and conjunctival staining remained unchanged.

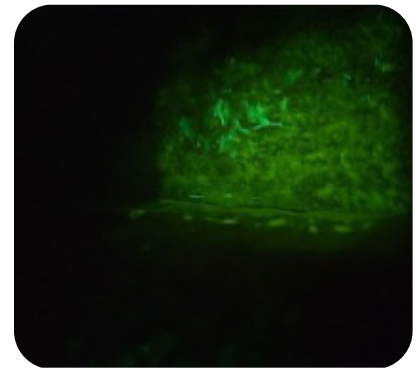
We decided to move forward with punctal occlusion using long-duration, dissolving punctal plugs. After the procedure, she would continue using serum tears every two hours and GLA-based nutritional supplements.

FINAL EXAM

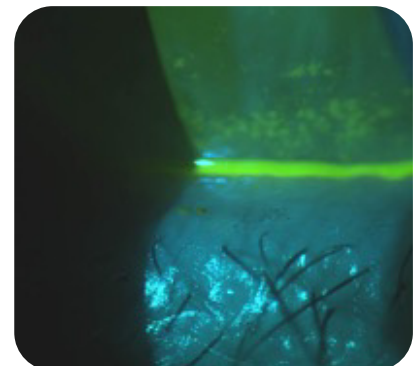
At her most recent visit, she felt her eyes were doing much better, and she was able to read for the first time in over a year.

VA had improved to 20/30-1 OD and 20/30-2 OS, osmolarity readings were 309 in the right eye and 314 in the left, MGD had improved to grade 1-/2+, and grade 1- conjunctival staining and grade 2- corneal staining was observed. Her tear meniscus height was nearing normal.

Overall, the patient was extremely satisfied with her progress and improved quality of life.



FOLLOW UP EXAM
SPK grade 3 noted at the four-week follow-up exam.



FINAL EXAM
Normal Tear Meniscus Height After Punctal Occlusion