CASE STUDY

Autoimmune-Related Dry Eye Disease

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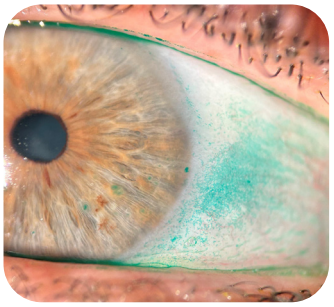
INITIAL PRESENTATION

A 70-year-old Caucasian female reported to the clinic with dry eye symptoms for more than 10 years that had been worsening over the last four months. Her chief complaint was a sand like feeling in her eyes and decreased vision.

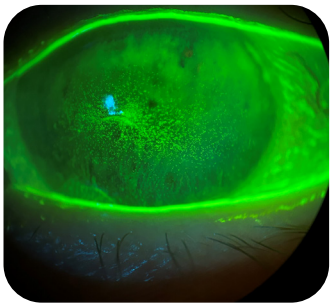
She had a history of rheumatoid arthritis and Sjogren's syndrome. Her ocular history included uneventful cataract surgery.

She had tried a number of dry eye therapies, all of which had been unsuccessful. Cyclosporine was not tolerated due to a burning sensation. Lifitegrast and punctal occlusion had produced an inadequate response. Amniotic membranes resulted in an inadequate duration of improvement, and she had been unable to insert and remove scleral lenses due to her arthritis and poor visual acuity.

She was currently using preservative-free artificial tears every one to two hours, steroid pulses to manage flare-ups, and had undergone inferior punctal cautery.



ENTRANCE EXAM
Severe conjunctival staining



ENTRANCE EXAM
Persistent, unresponsive corneal staining that is starting to coalesce

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Slit lamp examination showed unresponsive corneal staining that was beginning to coalesce and could lead to a persistent epithelial defect. Severe conjunctival staining was also observed. Osmolarity testing revealed elevated osmolarity of 378 in the right eye and 365 in the left. InflammaDry® testing was mild positive, meibography showed mild gland atrophy, and non-invasive tear break-up time was less than two seconds.

TREATMENT PLAN

I prescribed autologous serum tears at 30% concentration every 2 hours while awake. Over the following months the patient's signs and symptoms improved, and the patient was able to taper to less frequent dosing.

TAKE HOME POINTS

Patients with autoimmune-related dry eye may be good candidates for serum tear therapy. Serum tears may also be valuable in treating persistent, unresponsive corneal staining before an epithelial defect occurs.

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