In Treating DED, Success Means Considering All Factors

Why looking for systemic disease benefits patients with dry eyes.

BY BRANDON D. AYRES, MD

Eye care professionals often think of Sjögren syndrome solely as a possible cause of their patient's dry eye disease (DED). They may fail to realize the implications of what a diagnosis of Sjögren means for a patient. In primary Sjögren syndrome, dry eyes and dry mouth are the most common complaints, but even more life altering are the many other serious complications that occur throughout the patient's body. Therefore, any patient presenting with complaints of dry eyes, ocular irritation, or foreign body sensation should be questioned to determine if he or she is experiencing other immune system disorders. These patients may benefit from being screened for Sjögren syndrome.

THE IMPORTANCE OF EARLY DIAGNOSIS

When patients are diagnosed with early-stage Sjögren syndrome, they can begin systemic treatment, thereby lessening the severity of future ocular surface disease. There is evidence that, if a Sjögren patient is diagnosed early, before the lacrimal glands are destroyed by the autoimmune system, treatment can prevent future severe DED and reduce the chance of severe systemic illness.[1] Like other systemic diseases, if Sjögren syndrome goes undiagnosed and is allowed to progress into late-stage disease, only the symptoms can be treated.

eyetube.net
eyetube.net/video/sjo-finger-stick-test/

TESTING FOR SJÖGREN SYNDROME

The American College of Rheumatology recommends testing patients for biomarkers (Sjögren-specific antibody A, Sjögren-specific antibody B, rheumatoid factor, and antinuclear antibody), along with performing a lip biopsy and ocular staining, to diagnose Sjögren syndrome. These biomarkers independently have low sensitivity and specificity.

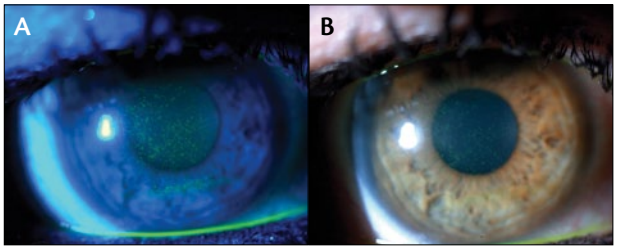

Figure. Two photographs from a patient very similar to the one discussed herein. The first was taken using cobalt blue light (A), and the second is a standard color photograph (B). These images highlight the inferior and central punctate keratopathy associated with dry eye (and Sjögren syndrome). This patient is at stage III in the dry eye scale.

This is because patients with Sjögren syndrome may not test positive for these autoantibodies, and antinuclear antibody and rheumatoid factor are suggestive of autoimmune disease in general, not Sjögren syndrome specifically.[2]

For an accurate diagnosis, I use a laboratory screening test (Sjö; Nicox). The test combines traditional markers with three novel, proprietary biomarkers, allowing earlier detection of the disease. The test is easy to use, takes less than 5 minutes to administer, and requires a simple finger stick for the extraction of blood. I mail the kit to a laboratory and receive the results within 2 to 3 days. Patients who test positive for Sjögren syndrome are grateful to know the reason for their chronic discomfort. When I can confirm they have an autoimmune disease that is destroying their tear glands, they are relieved to have an answer and move forward with targeted treatment.

CASE STUDY

A 54-year-old white woman was referred to me for chronic ocular surface disease. She had tried topical cyclo-

sporine and artificial tears with unsatisfactory results (Figure). After being under my care for 9 months, I added the use of an autologous serum to her treatment regimen. In the office, I drew her blood, centrifuged it, and diluted the serum to 20% with the tears. The patient used the serum with her medication. It is telling that the patient was so frustrated with her ocular surface disease that she was willing to allow me to draw her blood every 3 months for the autologous serum. During one of her visits, I informed her that we had adopted a new screening test and that I could screen her for Sjögren syndrome during her office visit. When I said this, I noticed she was holding a water bottle; I asked her if she had dry mouth. She replied that although she was always drinking, she perpetually felt parched. She also informed me she had been tested previously for Sjögren syndrome, likely using the American College of Rheumatology recommendations, but that her test results had come back negative. She was one of my first patients whose results came back positive. Immediately, I wrote a letter to her primary care physician, who in turn referred her to a rheumatologist. Ultimately, I hope her rheumatologist will add systemic medications to her treatment protocol, preventing further worsening of her systemic condition and DED.

The earlier physicians can identify patients with Sjögren syndrome, the more likely the course of their disease can truly be altered. I have seen hundreds of patients in my practice with stories similar to hers, and I am now screening all of them for Sjögren.

CONCLUSION

It is our responsibility as medical practitioners to think deeply about common complaints of DED and to consider systemic etiologies. Sjögren syndrome in particular is more common than we ever thought; the Sjögren's Syndrome Foundation estimates that there are 4 million patients with the condition in the United States.[3] As physicians, we treat patients, not just eyes, and screening for systemic disease can play a large part in improving public health. ■

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