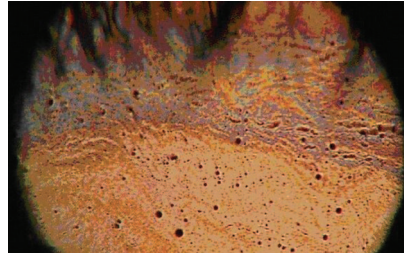


OVS ANNOUNCES

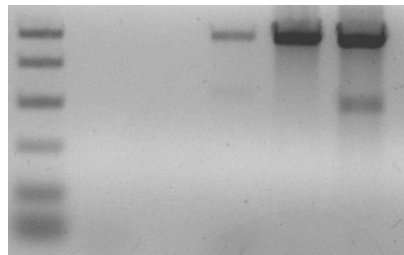
IN THIS “Dry Eye: Clinical and Research Challenges” FEATURE ISSUE:

- Is evaporation fast enough to explain tear film break-up?



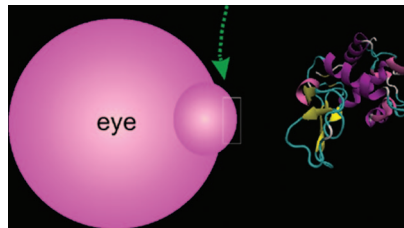
Classical models of tear film break-up were based on the assumption that evaporation is too slow to explain break-up time, but the authors argue that evaporation in natural conditions is often much faster than measured values and can cause extended areas of break-up. (p. 623)

- Mucins may be an important key in dry eye and contact lens wear



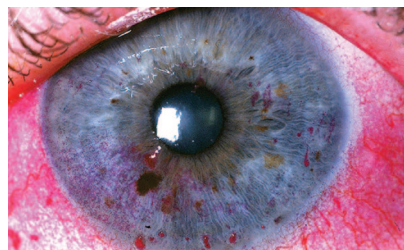
In this review, our authors suggest that ocular mucins hold promise in understanding tear film stability in dry eye and contact lens wear. They believe that understanding them will be important in the treatment of the dry eye syndrome. (p. 631)

- Designer ophthalmics for dry eye?



Tear film protein complexity is far greater than previously appreciated; almost 500 proteins have now been identified. Given that few (only 4 to 5%) were related to dry eye in this preliminary report, our author believes disease-specific “signatures” may be identified and that tear protein rescue may become a personalized approach to ocular surface disease. (p. 643)

- Sjögren’s syndrome patients have increased inflammatory mediators in the tears



With custom-designed microwell antibody protein arrays, the study probed human tear fluid for the presence of several cytokines that modulate immune-mediated processes. It reveals an overall increase in inflammatory mediators in the tears of Sjögren’s syndrome patients. (p. 653)

- Simpler biomarkers for the dry eye Sjögren’s syndrome?



The authors’ pilot study suggests that Sjögren’s syndrome patients can be distinguished from other forms of dry eye through tear analysis by their reduced lipocalin and reduced overall tear protein. If confirmed, the diagnosis of Sjögren’s syndrome may involve less invasive testing. (p. 661)

- Dry eye in an older population



In a well-studied elderly population, this article reports a 10-year incidence of dry eye (21.6%) with an important impact on quality of life. The authors call for more epidemiological research that can identify modifiable risk factors. (p. 668)

- Optimizing warm compress therapy for meibomian gland dysfunction



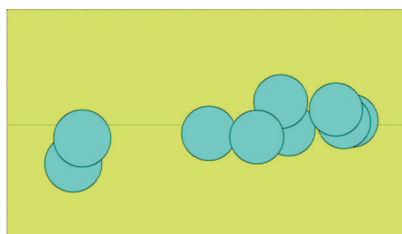
The authors present a method to optimize the critically needed heat transfer from the outer to the inner lid with warm compress therapy for the treatment of meibomian gland dysfunction. (p. 675)

- Sleeping with new eye masks to treat meibomian gland dysfunction



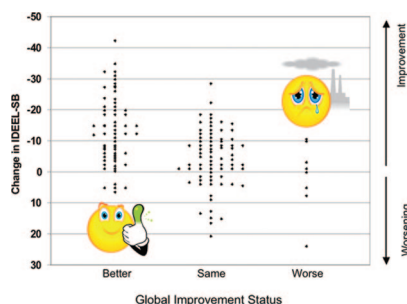
For Sjögren's patients, the new masks, made of natural carbon fiber (Orgahexa fiber) that releases far-infrared radiation indefinitely when exposed to body heat, improved both tear function and ocular surface status without complications, while decreasing symptoms significantly. (p. 684)

- How well do dryness questionnaires relate to each other?



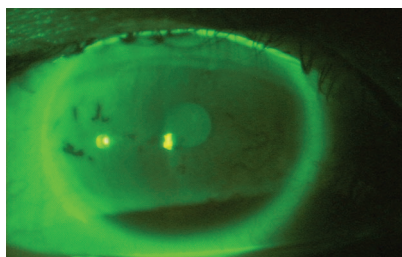
There are numerous questionnaires for measuring symptoms of ocular dryness, but little information about how they relate to each other. Here four different dry eye questionnaires gave similar results and were clearly able to separate the symptomatic and asymptomatic groups initially assigned by the relatively simple Subjective Evaluation of Symptom of Dryness (SESoD) screening test. (p. 692)

- Symptom-based clinically important differences in dry eye



The influential Epidemiology Subcommittee of the International Dry Eye Workshop (2007), reported “clinically meaningful changes in questionnaire scores need to be defined.” In a short dry eye treatment trial, the relationship between scores in the Symptom Bother module of the Impact of Dry Eye on Everyday Living (IDEEL-SB) and the globally expressed change in condition were analyzed to establish the clinically important difference in IDEEL-SB scores. (p. 699)

- “To blink, or not to blink completely”: that is the question



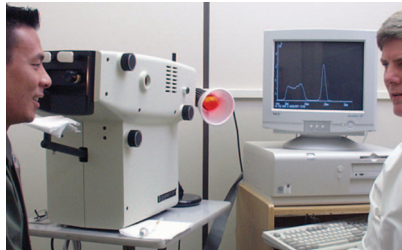
Using tear break-up dynamics (TBUD), the authors find that the tear film of an incomplete blink is more stable than the tear film of a full blink in dry eye subjects, but not in controls. (p. 706)

- Can mathematical models beat “try and see” for viscosity effect on tear drainage?



The authors propose that mathematical modeling, to predict tear retention time, can be very helpful in quantitatively understanding the role of various additives of the eyedrop formulations. They suggest that the models are useful in developing optimal eyedrops. (p. 715)

- Increasing artificial tear retention time in patients



Fluorometry is used to estimate the ocular surface dwell or “residence” time of commercial artificial tear formulations in dry eye subjects with meibomian gland disease. Some muco-adhesive formulations had mean residence times more than two-fold greater than saline, but viscosity was not the only factor in increasing residence time. (p. 725)

- Prophylactic artificial tears?



Using a novel tear stress test, the authors report that use of carmellose sodium of either low or high viscosity, just before or after inducing tear stress, reduces the resultant symptoms. The authors advocate application of artificial tears just before or after visually demanding tasks in alleviating dry eye symptoms. (p. 732)

- The right time to insert a contact lens upon awakening



After a night’s sleep tear quality deteriorates, presumably from biochemical changes in the tears. The study result argues that insertion of a contact lens should be delayed until the tear film re-equilibrates and blinking allows the tears to refresh. Most overnight tear quality changes were reversed within an hour of waking. (p. 740)

- “What eyedrop should I use for my dry eyes?”



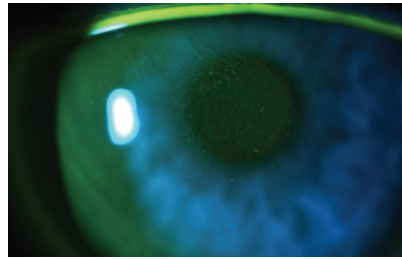
The authors discover that a preparation containing sodium hyaluronate was slightly superior in improving ocular surface health and caused less visual blur on instillation than carbomer, though the two eyedrops were equally effective at reducing dry eye symptoms. (p. 750)

- Functional visual acuity measures as an indicator of effective use of punctal plugs for dry eye



The authors use the mean value of the VA during the overall testing time with Functional Visual Acuity (FVA), rather than the VA value at one point during the test. Most dry eye patients (70%) who had improved symptoms 1 month after punctal plug insertion had improved FVA. Most of the remaining patients had epiphora with the punctal plugs and suffered a reduction in FVA. (p. 758)

- **What underlies contact lens-related dry eye?**



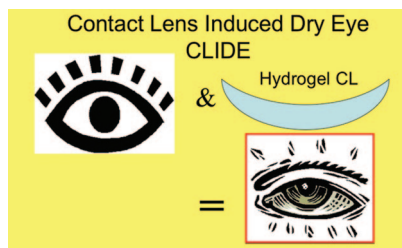
The authors look at the role of treatments, contact lens materials, and care solutions in trying to address the enigma of contact lens-related dry eye. The use of high water content materials was strongly related to dry eye in lens wearers, while care solutions were not. (p. 764)

- **Lubricant effect on contact lens comfort**



Discomfort related to dryness sensation is a common problem, too often leading to discontinuation of contact lens wear. The authors use lubricants of three different viscosities but conclude that although each helped reduce dryness symptoms with silicone hydrogel lens wear, increased lubricant viscosity did not lead to improved longer term comfort. (p. 773)

- **Before-and-after dry eye symptoms are a clue to role of hydrogel lenses**



This study looks at ocular dryness symptoms in hydrogel contact lens wearers before and after they are refit with silicone hydrogel lenses. It compares the clinically significant reduction in symptoms in patients who do, and do not, wear hydrogel contact lenses. (p. 778)