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Title: Novel Okra Polysaccharide Approach to Inflammation Control for Dry Eye

Purpose: Dry eye is generally a chronic inflammatory condition involving the eyelid margin and meibomian glands. There are very few treatment options for dry eye that can provide immediate and lasting symptomatic relief beyond a few minutes. We performed an in-office eyelid debridement procedure using a novel okra-based polysaccharide gel to evaluate its effectiveness for dry eye relief as assessed by a Standard Patient Evaluation of Eye Dryness (SPEED) questionnaire.

Methods: Subjects with a SPEED score over 6 and who were 18 years or older were eligible for this study. Exclusion criteria included smoking, pregnancy, active ocular infection or intraocular inflammation, recent eye surgery within the previous 3 months, or prior isotretinoin use. SPEED scores were taken at baseline and at 2 hours following bilateral eyelid debridement using the ZocuKit™ System containing the okra-based polysaccharide gel.

Results: At baseline, the mean SPEED score was 11.3 ± 0.7 in 9 subjects. Two hours after eyelid debridement with an okra-based polysaccharide gel, the mean SPEED score improved to 0.7 ± 0.3 ($p < 0.0001$).

Conclusion: Our results demonstrate a striking improvement in all treated subjects with moderate to severe dry eye symptoms using a novel okra-based polysaccharide approach for controlling inflammation at the eyelid margin. Further research will help to clarify how this natural okra-based approach can be used as a long-term therapy for dry eye and its role as adjunctive treatment for other types of interventional eye procedure like IPL, meibomian gland probing, pterygium and refractive surgeries.

