

Lid Seal Severity in a Dry Eye Population

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Purpose

To determine what percentage of existing dry eye patients in a dry eye specialty clinic have a quantifiable lid seal abnormality, and to determine the level of severity if present.

Introduction

Incomplete lid seal, particularly overnight, is thought to be a relatively common but under-reported cause of ocular surface desiccation due increased evaporative stress. It is highly correlated to eye discomfort upon awakening, and can occur in the absence of significant lid pathology. The Korb-Blackie lid light test, using a transilluminator placed on a patient’s upper lid, attempts to quantify the amount of light escape underneath the seemingly closed lid. Abnormalities can be classified into mild, moderate, and severe based on the amount of visible light emanating from underneath the lashes.



Korb-Blackie lid light test

SANDE Questionnaire

PLEASE COMPLETE THE FOLLOWING QUESTIONS REGARDING THE FREQUENCY AND SEVERITY OF YOUR DRY EYE SYMPTOMS.

1. Frequency of symptoms:

Please place an 'X' on the line to indicate how often, on average, your eyes feel **dry and/or irritated**:

Rarely _____ All the time

2. Severity of symptoms:

Please place an 'X' on the line to indicate how severe, on average, you feel your symptoms of **dryness and/or irritation**:

Very Mild _____ Very Severe

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TOTAL _____

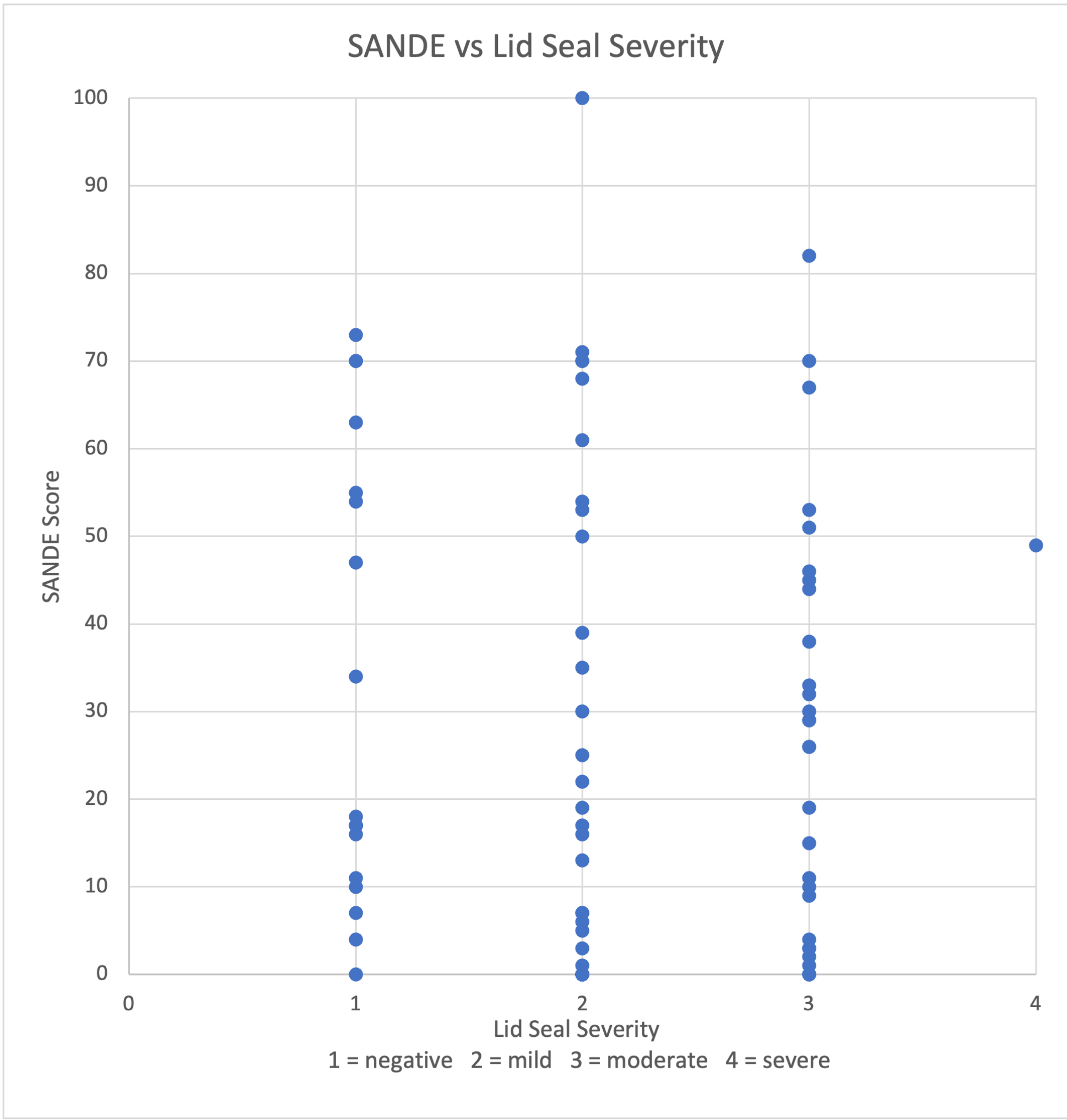
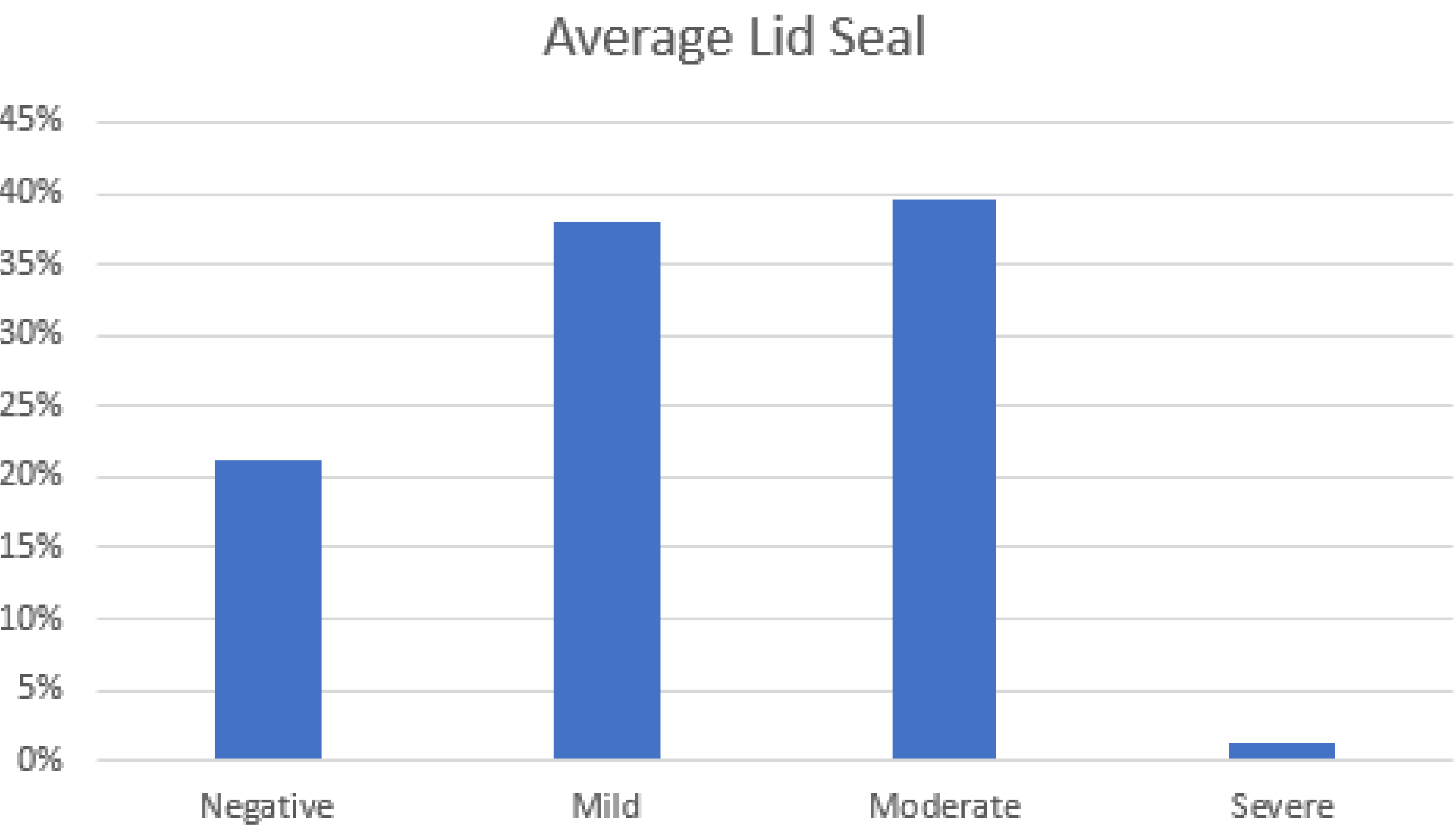
PREVIOUS _____

Methods & Materials

Lid seal abnormalities were reviewed in 176 charts of existing dry eye patients. The procedure used during the standard dry eye examination was the Korb-Blackie lid light test. The patient charts of three doctors were analyzed and reviewed as to whether the lid seal test was categorized as negative, mild, moderate, or severe. The patient’s age, SANDE score, and contact lens use was also recorded.

Results

Out of 176 patients: 20.45% had a negative lid seal, 36.36% had mild findings, 41.47% had moderate, and 1.70% had severe. No particular correlation to the patients’ overall SANDE score was found.



Conclusion

Around 80% of established dry eye patients have a quantifiable lid seal abnormality, the vast majority of which are mild-moderate. While there was not much direct correlation between lid seal grading and the patient’s reported SANDE score, the Korb-Blackie lid light test should be included in all thorough dry eye evaluations so as not to miss what would be an additional cause of desiccating stress.

Limitations

As dry eye disease is multifactorial, use of the lid light test in isolation compared to the overall SANDE score does not take into account any other potential causes of desiccating stress.

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