

## **MiBoFlo - Meibomian Duct Therapy high patient satisfaction**

-11% of patients failed with restasis or LipiFlow, improved with MiBoFlo

-TBUT improved in 96% of patients

-93% patient satisfaction

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Evaluation of Thermoelectric Warming Therapy Alone or in Combination with a New Office Lid Scrub Device for Meibomian Gland Dysfunction

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### **Purpose**

To investigate the safety and efficacy of using a new thermoelectric warming therapy alone or in combination with spinning neoprene disposable discs as lid exfoliators to treat meibomian gland dysfunction, a leading cause of dry eye.

### **Methods**

Prospective consecutive analysis of 51 patients, 73% female, mean age 68.6 years with meibomian gland dysfunction treated at our dry eye center of excellence and research. 11% had failed restasis or lipiflow. Exclusion criteria included active ocular inflammation or autoimmune diseases. Treatment consisted of 3 sessions, two weeks apart, of localized thermoelectric warming therapy (Miboflo) for 8 minutes per eye. Patients with abnormal line of Marx and/or meibomitis also received one blepharo-exfoliation with a novel hand held device (Lidpro) prior to the Mibo treatment. OSDI and Speed questionnaires, meibography, tear osmolarity and break-up time, Shirmer test was recorded in all patients.

### **Results**

SPEED and OSDI questionnaires improved by 88 and 40% respectively eight months after the last treatment was performed. Tear osmolarity decreased by 11% and tear break-up time improved in 96% of the patients. Ocular staining with lissamine green was significantly reduced after the first Mibo treatment and persisted 8 months after treatments. Blepharo-exfoliation treatment was required by 35 patients. In these cohort, patient satisfaction was increased to 93% and there was a significant reduction in the need of artificial tears, vasoconstrictors or cyclosporine after the treatments. No complications or adverse events occurred and all the procedures were well tolerated.

## **Conclusion**

Statistically significant improvement in signs (tear break-up time, lissamine staining) and symptoms (OSDI and SPEED) of meibomian gland dysfunction was found after treatment with Miboflo thermoelectric warming therapy. The addition of blepharo-exfoliation when required increased patient satisfaction and decreased drop dependency after treatment.