AN EXPANDING ROLE OF THE INTENSE PULSED LIGHT (IPL) THERAPY IN OPHTHALMOLOGY

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Introduction: The novel treatment modality of IPL was originally used in dermatology and only in 2015 was introduced in ophthalmology for the treatment of Meibomian Gland Dysfunction (MGD). Clinical improvement following IPL therapy is achieved via multiple mechanisms of action.

Aim/Purpose: To present our protocol for the combined treatment of ocular surface diseases (OSD). As OSD pathogenesis is complex with its core mechanism tear hyperosmolarity, its treatment requires complex approach.

Methods: Before implementing IPL treatment modality into our practice we have been using traditional treatment options along with manual expression of meibomian glands. In cases of anterior blepharitis before we proceed to the IPL therapy we usually perform AB Max (Anterior MicroBlepharoExfoliation) in-office procedure for the removal of the debris. In our algorithm of OSD treatment the second step is IPL procedure followed by the low-level light therapy (LLLT). The efficacy of the treatment algorithm was assessed by the Ocular Surface Disease Index (OSDI) questionnaire, tear meniscus height (TMH), tear break-up time (TBUT) and findings on slit-lamp examinations.

Results: Although, satisfactory results were achieved with the traditional treatment, they were short-term and with the implementation of novel treatment protocol patients experienced long-lasting improvement. The efficacy of the treatment algorithm is depended on the number and frequency of the procedures. Not only the symptoms, but parameters of the ocular surface were improved following the combined treatment procedures.

Conclusion: IPL therapy as a stand-alone procedure or in combination with other treatment modalities is a Gold Standard in Oculocosmetelogy and is considered to be safe for the treatment of the MGD improving the tear film stability and hence, subjective feeling of ocular discomfort.