



Outcomes of Intense Pulsed-Light Therapy for Treatment of Evaporative Dry-Eye Disease

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Purpose

To determine the clinical outcomes of intense pulsed light (IPL) therapy for the treatment of evaporative dry eye disease (DED).

Methods

A retrospective chart review was performed of 37 patients with a diagnosis of dry eye syndrome that underwent IPL therapy from September 2012 through July 2013 at the Duke Eye Center. Demographics, clinical history, exam findings (eyelid and facial vascularity, eyelid margin edema, meibomian gland oil flow and quality score—all graded on a scale of 0-4), and ocular surface disease index (OSDI) scoring data were collected from each visit. Data was analyzed using SAS analytical software.

Results

On average, patients underwent 4 IPL sessions. There was significant decrease in scoring of lid margin edema (mean = -0.4; range -1.5 to 0), facial telangiectasia (mean = -1.0; range -2.5 to 0), lid margin vascularity (mean = -1.4; range -2.5 to 0), meibum quality (mean = -1.45; range -3 to 0), and OSDI score (-13.9), all with $p < 0.001$. There was a significant increase in oil flow score (mean = 0.9, range -0.5 to 2) and tear break-up time (mean = 3.5 seconds, range -1 to 7), both $p < 0.001$. No significant changes in intraocular pressure or acuity were noted.

Conclusion

IPL therapy for evaporative DED is a safe procedure. The objective clinical exam findings and subjective OSDI scoring data suggest that IPL is an effective treatment for patients with evaporative dry eye disease.

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Meeting Information

When:

April 25 - 29, 2014

Where:

The Boston Convention and Exhibit Center
Boston, MA