



April 2014  
Volume 55, Issue 13

ISSUE

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Abstract

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ARVO Annual Meeting Abstract | April 2014

## Adherence to laser therapy in diabetic patients in INDEN, Santo Domingo, Dominican Republic, from April 2012 to April 2013

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Investigative Ophthalmology & Visual Science April 2014, Vol.55, 6358. doi:

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### Abstract

#### Purpose

Diabetic retinopathy is a major complication of diabetes mellitus, being the leading cause of blindness in individuals of working age (25-74 years). The cornerstone of the treatment of this complication in advanced stages is the laser photocoagulation.

#### Methods

The main objective of this study was to assess treatment adherence and success rate or condition's stabilization, along with the clinical-demographical characteristics and state of visual acuity of patients with diabetic retinopathy treated with laser photocoagulation in INDEN hospital's ophthalmology department, Santo Domingo, DR. from April 2012 - April 2013.

#### Results

Based on a cohort study we evaluated all the patients who were treated with laser photocoagulation in the mentioned period (266 patients), from which a sample of 115 eyes was extracted comprised of those who met the inclusion criteria. These were tabulated in Excel and subsequently analyzed in SPSS. Results show that patients were diagnosed with DM about 16 years prior to the ophthalmological evaluation and treatment accounting for a number of 93 eyes, of which 85% had a proliferative stage. Therapeutic adherence was of 57% with a stabilization percent of 83% in contrast with 43% of the patients with bad adherence (p value: .001). The usage of Triamcinolone of Anti-VEGF along with laser therapy shows a tendency to improve visual acuity in patients with CSME (.70 and .65 respectively to .65 and .65) (p value: .001)

#### Conclusions

Until now, we were not aware of Dominican diabetic patients' adherence to laser therapy. Results show that these patients have a poor adherence to laser therapy with only 57% completing treatment. Also our patients don't attend their ophthalmic evaluation until it has being too long since their diagnosis, about 16 years, (85% in proliferative stages). Although visual acuity shows some improvement with usage of laser plus triamcinolone and Anti-VEGF agents, stabilization of the patient's condition is the general outcome. Shortening laser sessions to 1 or 2 in order to finish treatment earlier, usage of coadjuvant treatment (triamcinolone and Anti-VEGF) and early referring of these patients by other specialists such as diabetologists, cardiologists, endocrinologists, etc. could help avoid patients' poor therapeutic adherence, late attendance and help prevent blindness in developing countries like the Dominican Republic.

**Keywords:** 499 diabetic retinopathy

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