Pattern Visual Evoked Potential in Diffuse Diabetic Macular Edema before and after Modified Grid Laser Treatment by Argon and Subthreshold Micropulse Diode Laser

Thesis

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Dedicated
To
Our Late Professor Dr Hosam Eldin Zaki Anis
To whom I owe a lot

Abstract

The aim of this study was to evaluate the electrophysiological changes in diffuse diabetic macular oedema using pattern visual evoked potential before and after laser treatment using modified grid laser treatment. Cases were followed up over 6 months follow up period by clinical examination, pattern visual evoked potential and flouresecin angiogram. The types of laser used for the different groups were the classic argon laser, the mild argon laser or the subthreshold micropulse diode laser treatment. The study highlight the effect of the different types of laser on the electrophysiological function of the macular, and also the effectiveness of these types of laser on the resolution of diabetic macular oedema.

Key Words: Pattern visual evoked potential- diabetic macular oedema- argon laser - subthreshold micropulse diode laser

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Abbreviations

- ***AGE-Advanced glycated end products***
- ***BRB-Blood retinal barrier***
- ***BSCVA-Best spectacle corrected visual acuity***
- ***BUN-Blood urea nitrogen***
- ***CME-Cystoid macular edema***
- ***CRA-Central retinal artery***
- ***CSME-Clinically Significant Macular Edema***
- ***DCCT-Diabetic Control and Complication Trial***
- ***DDME-Diffused diabetic macular oedema***
- ***ET-1-Endothelin-1***
- ***ETDRS-Early Treatment Diabetic Retinopathy Study Group***
- ***FAO-Flucocinolone acetonide envision***
- ***FAZ-Foveal avascular zone***
- ***HIF-Hypoxia inducible factors***
- ***HLA-Human leucocytic antigen***
- ***HRC-High risk criteria***
- ***ICAM- Intracellular adhesion molecules***
- ***IDDM-Insulin dependent diabetes mellitus***
- ***IGF-Insulin like growth factor***
- ***ILM-Internal limiting membrane***
- ***INL-Inner nuclear layer***
- ***IPL-Inner plexiform layer***
- ***IRMA-Intraretinal microvascular abnormalities***
- ***MAR-Minimal angle of resolution***
- ***mERG- Multifocal electroretinogram.***
- ***MVL-Moderate visual loss***
- ***NIDDM-Non-insulin dependent diabetes mellitus***
- ***NVD-Neovessels at disc***