A BRIEF STUDY ABOUT THE INFLUENCES OF GLYCEMIA VARIATIONS IN A NON-PROLIFERATIVE DIABETIC RETINOPATHY

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Abstract. *The present study is dedicated to some relationships between the variability of the contrast sensitivity and glycemic index in non-proliferative diabetic retinopathy. In this task, the authors have used Spectral Domain Optical Coherence Tomography (SD-OCT) image investigation and Pelli Robson Test during daytime, related to changes of parafoveal retinal layers with more 20 diabetic patients, with over 30 eyes available for analyses. For matched control group, the authors investigated 19 non-diabetic patients. Our results showed a correlation between the para-temporal and para-nasal retinal thickness during daytime, contrast sensitivity loss and glycemic variations that can be used as further investigation tool.*

Keywords: parafoveal diabetic retinopathy, retinal thickness, contrast sensitivity, glycemic index

1. Introduction

More 29 million people or 9% of the United States' population and 8.5% of Europe's population [1] are affecting by diabetes metabolic secondary disorders, like retinopathy, neuropathy, nephropathy, ischemic heart disease, cerebrovascular disease and peripheral vascular disease. [2].

The most frequently met is the diabetes as a result of insulin resistance, with a random glycemic level > 200 mg/dl or *a jeun* glycemic level > 125 mg/dl [3].

Diabetic retinopathy is an important cause of deterioration of vision for the patients affected by the disease and has a negative impact on patients' quality of life and their ability to successfully cope with the disease [4]. Retinopathy associated with diabetes is the main cause of acquired blindness in adult Americans [5].

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