

Detection of Biochemical Causes to Diabetic Retinopathy in Diabetes (type II) Patients in Al-Muthanna Province

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Abstract:

Background: Accumulating evidence indicates that oxidative stress, imbalance between reactive oxygen species production and antioxidant scavenging that may play a role in the etiology of type 2 diabetes mellitus and occurrence diabetic retinopathy as a result from increasing activity of free radicals and accumulation of lipid peroxidation products.

Aim: To investigate the association between glycemic control, lipid peroxidation and antioxidant status.

Methodology: A descriptive cross - sectional study on non- probability was conducted (sample collection) of (232) type 2 diabetes mellitus patients. Plain tubes, the tools and instruments that were used to collect data.

Results: The results of the study revealed that dyslipidemia and hypertension were found to be more prevalent in the diabetic retinopathy subjects than the regular diabetic subjects. Plasma antioxidant levels were higher in the diabetic subjects than the diabetic retinopathy subjects while malondialdehyde levels were found to be higher in the diabetic retinopathy subjects.

Conclusion: Duration of diabetes has very important effect on both MDA and uric acid levels for diabetic patients with/without retinopathy. Oxidative parameters value not influence by residence as well as body mass index not has any effect on uric acid level.

Keywords: Antioxidant Status, Oxidative Stress, Diabetic Retinopathy, Lipid Profile.