HYPERGLYCEMIA AND OXIDATIVE STRESS ASSOCIATED WITH ATHEROGENIC LIPID RISK FACTORS IN NEWLY DIAGNOSED TYPE2 DIABETIC MELLITUS.

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Abstract

Chronic hyperglycemia could impair defense system of endogenous antioxidant and can increase of free radical production which may lead to excess lipid peroxidation products. These products have important role in pathogenesis of cardiovascular complication in diabetic mellitus so that, the objective of the study was to assess the levels of some oxidative stress parameters (TAS, MDA, CP) and atherogenic index of plasma in newly diagnosed diabetic. In addition, investigate the relationship between oxidative stress parameters and glycated hemoglobin with AI in 54 subjects with newly diagnosed type 2 diabetes range age (38- 64 yrs). The results revealed patients group highly significant increase levels of plasma MDA and CP, whilst a decrease with higher significantly in level of TAS among patients versus control group. Also, the HbA1c levels correlated significantly positive with ceruloplasmin in addition to AIP, an inverse significantly correlate with TAS, MDA and non-HDL was observed. In conclusion, hyperglycemia in early stages diabetic patients is associated with accelerated oxidative stress and that contribute to development of vascular complications in diabetic patients. These results may be help to prevent the development and progression of the diabetic complication by taking pharmaceutical supplements containing antioxidant to control the diabetic complication.

Keywords: Atherogenic lipid risk factors, Hyperglycemia, Newly diagnosed type2 DM, Oxidative stress
References


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