## Available online at www.joac.info



## Journal of Applicable Chemistry

2013, 2 (6): 1581-1588

(International Peer Reviewed Journal)



ISSN: 2278-1862

## Study Of Malondialdehyde, Reduced Glutathione, And Peroxy Nitrite Levels In Type 2 Diabetics Patients

Dhafer A. F. Al-Koofee

Dept. of Pharmaceutical Chemistry, College of Pharmacy, Kufa University, IRAQ

Email: dhafera.faisal@uokufa.edu.iq

Received on 13<sup>th</sup> October and finalized on 23<sup>rd</sup> October 2013

**ABSTRACT** 

The study was conducted to investigate the difference in the serum malondialdehyde (MDA), glutathione (GSH), and peroxy nitrate (PN) levels between type 2 (T2DM) diabetes patients and normal subjects. MDA, GSH, and PN levels in sera of 100 patients and 80 participants in the control group were evaluated. A statistically significant difference was found between patients and the control group in terms of MDA, GSH, and PN levels. A decrease in GSH activity was detected (P<0.0001), while MDA and PN levels increased significantly (P<0.0001). The high levels of patients versus control ratio of MDA and PN levels probably suggests the occurrence as a mechanism of tissue damage in cases of T2DM. Moreover, it is recommended that the patient levels of MDA, GSH, and PN should be evaluated in insulin resistance patients.

**Keywords:** Type2 diabetes mellitus, Oxidative stress, Malondialdehyde, Reduced glutathione, Peroxy nitrite.