EuroSciCon

Euroscicon Conference on

Medicinal Chemistry and Biosimilars

March 25-26, 2019
Budapest, Hungary

Thikra A Allwsh, Der Pharmacia Sinica 2019, Volume:10
DOI: 10.21767/0976-8688-C1-003

THE CORRELATION OF OXIDANT AND ANTIOXIDANT ENZYMES IN CARDIOVASCULAR PATIENTS IN IRAQ

Thikra A Allwsh
University of Mossul, Iraq

Background: Oxidative stress (OS) was defined as an imbalance between the production of reactive oxygen species (ROS) and antioxidant defences in the cell, which leads to oxidative damage of cell and caused many disorders and diseases.

Aims: To identify the interactions and relationships between oxidant and antioxidant enzymes with risk factors in patients admitted to Cardiac Care Unit and statistically evaluated to improve the medical approach to these cases.

Materials & Methods: Patients between (35-70) years admitted to Cardiac care unit at Ibn Sina Hospital Educational in Ninawa Governorate, Iraq. We are included in research. Information and risk factors as age, body mass Index, gender, smoking, chronic diseases history, treatment, sport, length of Cardiac care stay and educational status were recorded also compared with healthy people age between (35-70) years. Blood samples were taken and the serum was separated and used to estimate the following biochemical parameters: activity of enzymes (Peroxidase, lacto peroxidase, and myeloperoxidase, glutathione-S transfers, glutathione peroxidase, arylesterase and catalase), also the concentration of Malondialdehyde (MDA), total lipids, total cholesterol, triglyceride, lipoproteins and the risk factor ratio were determined by using BIOLABO kit, also data analyzed by using statistical software package; SPSS version, a $p<0.05$ is considered as significant.

Results: The results demonstrated a significant decrease in the activity of antioxidant enzymes (glutathione-S transfers, glutathione peroxidase, arylesterase and catalase) in patient's group comparison to control. The results also showed a significant increase in the activity of oxidant enzymes (Peroxidase, lacto peroxidase, and myeloperoxidase) in the serum of cardiovascular patients group for both sexes in comparison with control. The results also indicated a significant increase in the concentration of malondialdehyde (MDA), total lipids, total cholesterol, triglyceride, Very low density lipoprotein-cholesterol (VLDL-C), Low density lipoprotein-cholesterol (LDL-C) and the risk factor ratio (total Cholesterol/ HDL) in serum patients . While a significant decrease in the concentration of high density lipoprotein-cholesterol (HDL-C) in serum patients compared with control. Correlation coefficients between oxidant and antioxidant enzymes were examined in control and cardiovascular patients. The results showed that there was a significant positive correlation between the activity

Biography

Thikra A Allwsh has completed her PhD from Mossul University. She has published more than 30 papers in reputed journals and has been serving as an Editorial Board Member of repute. She is serving as a Professor of Biochemistry University of Mossul. She is the Head of the Biochemistry and then supervised many Doctoral and Master's studies. She has participated in the discussion of a large number of students of Master's and Doctorate and also participated in many conferences and seminars in the field of Biochemistry as well as supervision of the projects of undergraduate students.

Allwsh2007@yahoo.com

of Myeloperoxidase, Peroxidase and lactoperoxidase, also a significant positive correlation between the activity of glutathione peroxidase, glutathione s-transferase and the concentration of glutathione also a significant negative correlation with concentration of MDA in control and patients group.

Conclusion: These results provide an evidence of a major role for antioxidant enzymes in cardiovascular disease. Also, in this review; we summarize the cellular oxidant and antioxidant enzymes and regulation of the reducing and oxidizing (redox) state in health and disease states.