



Treatment With Diagnostic Radiation Field And Stress: A Biochemical Study To Evaluate Cortisol And Oxidative Stress Parameters In Sera Of Handlers In The Sections Of Diagnostic Radiation In Hospitals

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ABSTRACT

Diagnostic radiation still one of the most important way in the diagnosis of several diseases, in spite of the possible passive effects of their product radiations. In order to test the hypothesis that radiations may perturb in the body functions (that including the function of nervous, sexual, immune and gastrointestinal tract systems) of the handlers in diagnostic radiation field, the present study was designed to determination of oxidative stress parameters (MDA and NO as a lipid peroxidation agents, and SOD in addition to CP levels, as protective agents against lipid peroxidation) in addition to cortisol level as a reflection parameters to the bearable effect in sera of 25 workers in Al- Sadder Medical City, and 30 non work controls. Elevation of MDA NO and cortisol levels were recorded ($p < 0.005$, $p < 0.05$, and $p < 0.05$; respectively) in sera sample of workers in the diagnostic radiation fields, on the other hand, significant decreases ($p < 0.005$ and $p < 0.001$; respectively) in levels of antioxidation parameters CP and SOD. Current work can present a simple and sensitive tool to evaluate the radiations effect in this field workers, oxidation and oxidation parameters can illustrate a good imagination about the workers health. This work can be applied in other fields which recorded radiance activities, in addition to that it can develop to involve estimation of several oxidative stress and antioxidation parameters and compare their results to present work.

Keywords: Radiation, Oxidative stress, Cortisol, Trace elements, Handlers.
