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The Impact of Ultra Violet and Plasma radiation on some biological parameters in Male albino Mice after Infected with *Pseudomonas aeruginosa* Isolated from different Clinical Samples

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Abstract

The present study was designed to describe the histological, and some physiological effect in some organs of male albino mice, after exposure to the UV light of different intensities and plasma radiation in different powers. The experimental animals were distributed into five groups (A, B, C, D, E). Group A was control group then group B divided in two groups B1 was treated with UV light, for 1h, 2h and 3h, and B2 treated with plasma then group C infected with *pseudomonas aeruginosa*, group D infected and treated with UV then group E infected and treated plasma radiation for five minute. The treated groups D exposure to radiation to investigated the inhibition action of radiation on bacterial infection after diagnosis the histological changes in lung. Kidney, liver organs, and some hematological parameters. The main histological changes of the lung after bacterial infected and treated with UV rays, noted abnormal aggregation of inflammatory cells beside the effected bronchioles in addition to abnormal cystic dilation that filled with fluid. The histological result of lung which exposure to plasma after infection with bacteria, noted a lot of pulmonary alveoli have prominent distraction, sever blood congestions and hemorrhage. The histological section of infected liver after UV radiation noted abnormal inflammatory cells aggregation in different location of liver parenchyma, the central vein have very wide lumen compared with control group. The tissue section of infected liver after treated with plasma rays findings were have prominent blood congestions, blood hemorrhage and aggregation of inflammatory cells. Infected kidney after treated with UV. Most renal tubules have prominent dark nuclei in the cells that composed the wall of renal tubules, the UV ray lead to progressive the lumen of cystic dilation. The kidney after exposure to plasma rays, have prominent blood hemorrhage and blood congestion. The UV rays did not have prominent effects on the creatinine level in infected group. UV have prominent effects in decreased the level of urea in groups that deals with UV, while the level of urea have significant increased after infected with Bacteria, the role of UV which lead to decreased the level of urea in the infected group compared with irradiated and control groups. so, the UV have positive role on treated the differences in the creatinine values in infected groups. The Biochemical result of ALT values in the treated groups have significant deference compared with control, the level of ALT have high significant increased in the result showed the positive role of UV in the decreased of ALT after infected with Bacteria, that showed the UV supported the liver in regeneration after infected with Bacteria. The role of UV lead to acute decreased in the The role of UV role in increased the level) group. 5-level of AST in (T3, UV+Bacteria10 of WBC's and lymphocytes, which lead to, activated the Immune role in the body in treated the bacteria infection, so this result showed the positive role of UV in inhibition The RBC values in (UV without Bacteria), (UV+Bacteria .the pathogenicity of bacteria) have no significant deference's between them but 5-acteria 10) and (without UV B4-10 have significant decreased compared with control. The result showed the role of UV ray in decreased the PLT values in the groups after radiation. The effects of plasma with low power was more useful to treat the infection of bacteria, through induce the immune system than higher power plasma, that noticed in our study.