البحوث المنشورة

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Effects of Electromagnetic Waves of Mobile Phone Towers on Lipid profile, Liver functions and Blood Electrolytes of Human Beings

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Abstract
In present study, some biochemical parameters were accomplished to assess the effects of electromagnetic waves of cellular phone towers on human beings. Four Iraqi governorates were chosen to collect human blood samples, those are: Basra, Thiqar, Maisan and Najaf. Total of four hundreds (400) blood samples were collected from volunteer men whose ages were ranging from 30 – 40 years old as 100 samples from each governorate. From each governorate; fifty samples were collected randomly from people who have dwelt at least for one year in houses very close to -not more 200 miters far- mobile phone towers and from different areas, and those people called as (Exposed). In addition, another fifty blood samples were collected randomly from people who dwelt in houses very far from the mobile phone towers to be as a control and they were called as (Not exposed). The biochemical results showed a significant increase in total serum cholesterol (TSCH), triglycerides (TGs), low density lipoprotein (LDL), very low density lipoprotein (VLDL), transaminases (AST , ALT), and blood calcium (Ca^{++}) of the exposed people in all of the four governorates with a significant increase in high density lipoprotein (HDL) of all governorates except that of Maisan governorate where it decreased but not significantly in the exposed group, while blood potassium (K^{+}) of the exposed people showed significant increase in Thiqar and Maisan governorates and not significant increase in Basra and Najaf governorates as compared to the parameters of non-exposed people in all governorates at ($P \leq 0.05$).

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Effect of Mobile phone electromagnetic waves on histological structure of liver and spleen of laboratory mice (Mus musculus)

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Abstract
In the present study, histopathological changes in liver and spleen were studied to assess the effects of mobile electromagnetic waves (EMW) in mice. Two groups of twelve male mice to each were used (control and exposed groups). Male mice of the second group were exposed to (1200 MHz) (EMW) for 30 days as 6 hours daily. The results showed that different deleterious effects were caused by exposure to EMW such as pyknosis of hepatocytes, infiltration of inflammatory cells, swelling of hepatocytes and

dilation of central vein. Besides, splenic changes were also clear like presence of megakaryocytes, sloughing of splenic capsule, necrosis and hemorrhage in the white pulp.

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AMELIORATING AND PROTECTIVE ROLE OF QUERCETIN AGAINST O-ANISIDINE TOXICITY ON SOME REPRODUCTIVE ASPECTS OF LABORATORY MALE RATS (Rattus norvegicus).

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ABSTRACT
The present study assessed the effects of O-anisidine hydrochloride and the ameliorating effect of Quercetin dihydrate in laboratory rats. Sixteen male and thirty two female rats (Rattus norvegicus) were used and divided into eight equal groups of two male and four female rats each. The results revealed that the treatment with O-anisidine hydrochloride for 30 days (T1, T2 and T3 groups) caused significant decrease in the males body weights, sperm count, individual and massive sperm motility, testes weights, and epididymis weights as compared with control and (T4, T5, T6 and T7) groups at ($P\leq0.05$).When Quercetin dihydrate was offered as an ameliorating agent, it showed a significant ameliorating effect by increasing the body weights, sperm count, individual and massive sperm motility, testes weights, and epididymis weights . When Quercetin dihydrate was offered alone in the ration of the sixth treated group (T6), it caused clear significant ameliorating effect on all sperm parameters comparing with all treated groups and the sperm count was even significantly higher than that of control group while the other aspects were similar to those of control group at ($P\leq0.05$). Beside, O-anisidine caused significant decrease in the number of pregnant females, number of delivered litters, weight of litters and sex ratio, and it prevented the pregnancy from being occurred in the group both male and females are treated with it (T1). When Quercetin was mixed with O-anisidine in the ration of (T7), it significantly ameliorated the pregnancy chances, number of litters and the sex ratio as compared with the other groups but it didn't reach to significant level with control group at ($P\leq0.05$).

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STUDY THE PROTECTIVE ROLE OF QUERCETIN AGAINST O-ANISIDINE TOXICITY ON SOME HEMATOLOGICAL PARAMETERS OF LABORATORY MALE RATS (RATTUS NORVEGICUS).

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ABSTRACT

The study was designed to assess the protective role of Quercetin against O-anisidine toxicity. 24 male rats (Rattus norvegicus) were used and divided into 3 equal groups of 8 male rats each. The first group was the control group in which the animals were fed on a standard ration for 15 days, then they were terminated. The second group was fed on a ration contains 1000mg/kg O-anisidine hydrochloride for 15.The third group was fed on a ration contains 1000mg/kg O-anisidine hydrochloride + 80mg/kg Quercetin dihydrate for 15. The results revealed that the treatment with O-anisidine hydrochloride for 15 days (1rst treated group) caused significant decrease in the R.B.C. count, Hb concentration, P.C.V. percentage, neutrophil and lymphocyte counts and it caused significant increase in platelets count, total leukocytes, monocytes, eosinophil and basophil counts, as compared with control group. When Quercetin dihydrate was offered as a protective agent in the ration of the 2nd treated group, it showed a significant ameliorating effect by increasing the R.B.C. count, Hb concentration, P.C.V. percentage, neutrophil and lymphocyte counts and it caused significant decrease in platelets count, total leukocytes, monocytes, eosinophil and basophil counts, as compared with the 1rst treated group. For the blood indices (RDW, MCH, MCHC, MCV, and MPV) there were no significant differences among all the experiment groups except for the mean platelet volume (MPV), where O-anisidine hydrochloride caused significant decrease in the MPV of the 1rst treated group as compared with control and 2nd treated group at ($P \leq 0.05$).

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EFFECT OF ACUTE EXPOSURE OF LEAD ACETATES ON THE MORPHOLOGY OF LIVER AND KIDNEY OF MICE (MUS MUSCULUS) AND THE ROLE OF VITAMIN C AS A REPAIRING AGENT

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ABSTRACT
The objective of this study is to elicit the destructive effect of lead on the tissues of liver and kidney of mice and if vitamin C is capable of repairing the damage caused by lead. In this study, 40 male mice were used and divided into three groups as: Control group which consists of 16 mice; 8 of them were injected intraperitoneally with (0.9 % N.S.) for 15 days daily then they were sacrificed and the remainder 8 mice were injected intraperitoneally with (0.9 % N.S.) for additional 15 days daily then they were sacrificed, First treated group (T1 group) which consists of 8 mice only; they were injected intraperitoneally with (80 mg/kg) lead acetates then with (400 mg/kg) vitamin C after one hour of lead acetates injection for 15 days daily then they were sacrificed, Second treated group(T2 group) which consists of 16 mice; they were injected intraperitoneally with (80 mg/kg) lead acetates for 15 days daily then 8 of them were sacrificed and called as (T2a) and the remainder 8 mice were injected with (400 mg/kg) vitamin C for additional 15 days daily and called as (T2b). Histologically, the kidneys of the lead acetates treated group indicated undefined epithelial cell lining and also the presence of giant-like cells. When vitamin C offered, it decreased the damage that caused by lead where the kidneys indicated the presence of cuboidal epithelial cells with disrupted epithelial cell lining, and increased intracellular space in the lumen. The livers of the lead acetates treated group indicated the presence of abnormal hepatocytes with distorted shape and undefined epithelial cell lining enlarged nucleus with vaculation. The incidence of changes and severity were less in the vitamin C treated group. The effect of vitamin C was similar if it is offered after one hour of lead injection or for additional 15 days after lead injection. Hence acute exposure to lead causes

morphological changes in the liver and kidney of mice. Hence acute exposure of lead may be toxic and is associated with various pathological conditions such as hepatic and renal dysfunction and cancers.

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Effect of Mobile Phones Electromagnetic Waves on Body Weight and some aspects of Reproductive system in Laboratory Mice (Mus musculus)

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Abstract
In the present study, some aspects of reproductive system and body weight fluctuations were studied to assess the effects of electromagnetic waves (EMW) in mice. Two groups of twelve male mice each, were used (control and exposed groups). Male mice of the second group were exposed to (1000 MHz) (EMW) for 28 days as 6 hours daily. The results showed significant increase in the dead sperms and abnormal sperms and significant decrease in sperms count, individual and massive movement, and alive sperms of the exposed group as compared with those of the control group ($P \leq 0.05$). The results revealed that final body weights of control group increased significantly throughout the experimental period, compared with initial body weight, while exposed group registered significant decrease in final body weight compared with initial body weight.

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Effect of Vitamin C as Protective Dose in Diminishing of toxic effect of lead on some physiological parameters in mice

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Abstract
The study was designed to assess the possibility of vitamin C as protective dose to reduce the toxic effect of lead on some physiological parameters and reproductive efficiency. A total of 32 healthy mice were utilized. The mice were randomly located into one of the following groups:-First group was given 0.1 ml. physiology slain and left as a control group. The second group was exposed to 60 mg/kg body weight lead acetate via intraperitoneal injection (ip) daily. The third group was injected (ip) daily with 60 mg/kg body weight lead acetate and then one hour later the animals were injected (ip) with 400 mg/kg body weight vitamin C. The study lasted 15 days. The blood samples for hematological and biological analysis were taken by cardiac puncture. The result revealed to significant reduction in red blood cell, packed cell volume, hemoglobin, ALT and AST in lead treated group. A significant increase in white blood cells, acidophil, monocytes, lymphocytes, and total serum cholesterol were also seen compared with the control. No basophiles were observed in the three studied group. The study recorded the positive effect of vitamin C on blood parameters values of lead treated animals, but it less significantly than the control group. The results indicated also that vitamin C increased the hepatic enzymes (ALT and AST) compared

with the treated values but still less than control group. It seems that vitamin C was not able to get the white blood cells and its differential number values (apart of neutrophils) and total serum cholesterol values down. The elevation of their values was continuing compared with the control group, but still was able to get its effectiveness on neutrophils and reduce its value significantly compared with treated animals, Considering the effect of lead on reproductive parameters and the role of vitamin C to relief the lead toxic, the findings of lead treated animal showed deterioration in reproductive aspects in both males and females, and the ability of vitamin C to improve the reproductive efficiency.

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Effect of mobile phone electromagnetic waves on the Haematological and biochemical parameters in laboratory mice (MUS MUSCULUS)

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Abstract.

In present study, some hematological and biochemical parameters were accomplished to assess the effects of mobile phone electromagnetic waves (EMW) in mice. Two groups of sixteen (16) male mice each were used; the first group is a control group and the second one is an exposure group. The mice of the second group were exposed to (1200 MHz) (EMW) for 45 days as 6 hours daily. The hematological results showed a significant increase in red blood cells count, total leukocytes count, lymphocytes, monocytes and acidophils of the exposure group as compared with those of the control group at ($P \leq 0.05$). While there was a significant decrease in hemoglobin, packed cells volume, and neutrophils of the exposure group as compared with those of the control group. The biochemical results showed a significant increase in blood calcium and a significant decrease in total cholesterol, blood glucose, AST, and ALT enzymes against those of the control group at ($P \leq 0.05$).

البحوث المعدة للعمل (منجزة ومعدة للنشر)

1- Effect of the drug Gabapentin on the behavior and some neurological parameters of laboratory rats.

2- Effect of the drug Gabapentin on the histological structure of brain of laboratory rats.

3- Effect of Acesulfame-K on hematological parameters of laboratory rats.

4- Effect of Brown-FK on hematological parameters of laboratory rats.

5- Effect of Acesulfame-K on hematological parameters of laboratory rats.

6- Effect of Carrageenan E-407 on hematological parameters of laboratory rats.

7- Effect of the drug Gabapentin on the hematological parameters of laboratory rats.

8- Effect of Acesulfame-K on reproductive parameters of laboratory rats.

9- Effect of Acesulfame-K on some histological structures of organs of laboratory rats.

10- Effect of Brown-FK on reproductive parameters of laboratory rats.

11- Effect of Brown-FK on some histological structures of organs of laboratory rats.

12- Effect of Carrageenan E-407 on reproductive parameters of laboratory rats.