

## **Study of Some Immunological Parameters Related with Vitiligo Patients**

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### ***Abstract***

The current study aimed to determine the relationship between certain immunological parameters with Vitiligo patients. The results revealed that a significant decrease ( $P < 0.05$ ) in the concentration of CD8 (ng/ml) in patients compared to healthy group, whereas there was non-significant differences in the levels of CXCL-10 (pg/ml), but there were a significant difference ( $P < 0.01$ ) in the concentrations reactive oxygen species ROS (ng/ml). According to the gender the males of patients has shown a significant decrease ( $P < 0.05$ ) in the concentration of CD8 in comparison with males control group, while the data noticed a significant increase ( $P < 0.05$ ) in the concentration of (CXCL-10) as well as a significant increase ( $P < 0.01$ ) in the concentrations of ROS. The comparison between females of patients with control showed a significant decrease in the concentrations of CD8, CXCL-10, but there was a significant increase in concentrations of ROS.

## **Histological and Flourescent Microscope Studies for Evaluation of Carbon Accumulation in Lymphatic tissues in Birds within Polluted Areas (*Anas platyrhynchos*)**

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### ***Abstract***

In order to follow up the deposition of carbon in the lymphatic tissues of birds, 18 birds of the ducks (*Anas platyrhynchos*) were collected. Divided into three groups of (6) birds per group. The birds were slaughtered and dissected, and the cecal tonsils in the large intestine and the lymphoid tissue in the lungs were isolated. All samples collected were fixed by 10% formalin. A microscopic examination of H & E stain, PAS stain, AO / EB double stain of the lymphatic tissue samples collected from a healthy area and polluted areas were done. The results of the histological examination revealed that the cecal tonsils contained lymph nodes spread in the real and sub-mucous membranes as well as lymphatic units within the muscle layer. The results showed that the pulmonary tissue contained many lymph node complexes spread between the pulmonary alveoli. All the lymphatic tissues of the cecal tonsils and the lymph node in the lung of the birds of polluted areas contain the carbon aggregations in a variable manner. Carbon aggregations were slightly higher in the lymphatic tissue collected from brick factories polluted areas than those collected from oil fields polluted area. The effect of carbon aggregations on all lymphatic tissue cells was evident in this study, which caused the death of these cells (programmed death), which is clearly demonstrated by using AO / EB double stain microscope technique, where normal cells appeared green, and other cells appeared in yellow color which indicates early apoptosis, while other cells appear orange as an indicator of the late stage of cell death.

## **Study some microbial contents of crisps & cakes specimens which available in supermarkets**

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### ***Abstract***

A 260 specimens of crisps & cakes were examined , represented by 26 kinds of crisps and 26 kinds of cakes . Each one repeated five times. They cultured on Nutrient agar and brain heart infusion agar , after the incubator period 8 different types of Bacteria were diagnosed . In crisps , the more frequency was *Bacillus* sp. Then *E. coli* , *candida* , *Klebsiealla Diplococcus* ....and others . Some Specimens without any microbes. 16 types of cakes were polluted with microbes .Also *Bacillus* sp. took the largest numbers, then *E. coli* , *Staph. Sp.* *Strept. Sp* others respectively.

*Bacillus* were more prevalence and frequency in both kinds of food , it may be for its availability in air, its tolerance to hard unsuitable conditions , formation of resistance spores . The Turkish cakes was suitable for eating salt & vinegar crisps were empty of any microbes kind.

## **Adverse cytological and enzymatic effects of long term Monosodium glutamate (MSG) intake on liver**

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### ***Abstract***

This study was aimed to investigate the effect of MSG on body weight gain and tissues of liver. Twenty-four (24) mature male rats were divided into three groups, First group (A) included eight (8) mature male rats served as a control group and supplied only by water. Second group (B) included eight (8) mature male rats that were given a daily oral dose of MSG (15mg/ kg /BW) for 30 days and then they were sacrificed. Third group (C) included eight (8) mature male rats that were given a daily oral dose of MSG (15mg/ kg /BW) for 75 days and then they were sacrificed. The results showed an increase in body weight gain in MSG treated groups with increase in weight of liver. The histological changes in liver includes hyperplasia in hepatocytes, increase binucleated cells, increase number of nucleoli, increase number and size of kupffer and apoptotic cells, increase obviousness of nucleolus. In conclusion, the high uptake of MSG for a long duration may lead to obesity and induce adverse effects on liver tissue, increase hepatocytes proliferation which may lead to cancer and may lead to increase liver biomarker.

## **Effect of ZnO Nanoparticles Synthesized by *Lactobacillus gasseri* on Expression of CZC Genes in *Pseudomonas aeruginosa***

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### **Abstract**

The antibacterial activity of biosynthesized ZnO nanoparticles by *L. gasseri* was evaluated through the determination of the minimum inhibitory concentration (MIC) against *Pseudomonas aeruginosa* isolated from skin infections. The synthesized ZnO nanoparticles were effective against all isolates with MIC recorded at 50mg/ml. Detection of the *czc* genes ( *czcB*, *czcR*, *czcS* and *czcC* ) through subjected 13 isolates of *P. aeruginosa* for conventional PCR . Results of uniplex PCR showed that all isolates were positive for *czcR*, *czcS* and *czcC* genes and 10 isolates were positive for *czcB*. The effect of Sub-MIC of biosynthesized ZnO nanoparticles on expression of *czc* genes (qRT-PCR) was studied. The results showed that the ZnO nanoparticles had an effect on the level of genetic expression, with an increase in gene expression, as the result showed that the fold change was increased in the expression as compared with control.

## **Serum Levels of 25-Hydroxy Vitamin D in Autistic Iraqi Children**

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### ***Abstract***

Current study targeted 200 autistic children in Baghdad governorate from children referred to the Central Pediatric Teaching Hospital, as well as patients who were referred to Dr. Haidar Al Malki Consultant Clinic in Pediatric Neuromedicine from 1 year to 12 years. The results show that the percentage of males with autism was 84% compared with females was 16% from total patients, age group distribution was found that the age group of 4-6 years is the most frequent group with 59% of the total patients followed by the age group 7-9 years with 28%. The result of vitamin D3 level showed about 15% of them have Severe Deficiency of D3 by mean level 7.6 ng/ml while 50% had vitamin D deficiency at a concentration rate of 14.2 ng/ml, the mild – Moderate Deficiency (Insufficient) category were appear by 25% at concentration rate of 23 ng/ml, while the percentage of optimal level (Sufficient) of D3 in children have autism were 10% by at concentration rate of 32.6 ng/ml, In conclusion the average vitamin D concentration for all patients was 17.3, which was classified as vitamin D deficiency.

# Therapeutic And Identification Study Of Tinea Capitis Infection In Basra City

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## *Abstract*

The current study included isolation and identification of some types of dermatophytic fungi that causes Tinea capitis in the province of Basrah from the patients of the Basra General Hospital and a private clinic in the province. It collected 180 samples of head hair including 118 male samples and 62 female samples, This study is the first conducted in the province of Basra on Tinea capitis. The results showed that the number of positive samples of the culture was 110 samples and 61.11% as cases of Tinea capitis, as the number of male infected 78 samples and 70.90%, while the number of female infected was 32 and 29.09%, and found that the age group 6 - 10 years is Were more infection to develop tinea capitis and 47.27%, while the lowest age groups were at 15 years of age with an incidence of 0.90. %. The dermatophytes that causing tinea capitis were diagnosed using a number of diagnostic tests. *Microsporum canis* was found to be more frequent by percentage 49.09%, followed by *M. audouinii* and *Trichophyton verrucosum* with percentage 16.36% and *M. gypseum* with percentage 10.90% and *T. mentagrophytes* By percentage 5.45% and *T. velocium* by percentage 1.81%. The other side of the study was to test the inhibitory activity of extracts of some medicinal plant species, including cloves and peel of pomegranate in the most common dermatophytic fungus caused tinea capitis, *M. canis*, using Agar Well Diffusion Method by using several different types of polar solvents Which included distilled water, ethyl alcohol, hexane, ethyl acetate and a mixture of these solvents. The results of the study showed that the Hexane extract of the clove plant had the highest effect in *M. canis* , After that was the effect of alcohol extract of cloves. A comparison of the effect of some antifungal agents was found in *M. canis*., Griseofulvin was found to be the most effective fungal antifungal against *M. canis*, while the least effect was inhibited when using fluconazole. GC-MS has been used to diagnose fatty acids for the hexane extract of cloves. A number of fatty acids have been identified with different percentages, including Caryophylline and Caryophylline oxide, A number of fatty acids, including Palmitic acid, Myristic acid, Linoleic acid, Elaidic acid and Stearic acid.

## **Cloud point Extraction of antibiotic drug by Direct (UV- Vis) Spectrophotometer and Indirect(Flame Atomic Absorption) Technique**

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### ***Abstract***

A new method for the determination of the Cefixime drug in some Pharmaceuticals using ultra violet-visible (UV- Vis) and indirect Flame Atomic Absorption Spectrophotometry (FAAS) by Cloud point Extraction by using Triton X-114 as surfactant, the method based to form chelating complex (CEF – Cu II) at 827nm , variables parameters were studied such as the concentration of metal ion , effect of pH, Triton X-114 amount, equilibration temperature and incubation time. The best pH for the formation of chelating complex was (13). The best temperature on cloud-point extraction was 50 °C at 20 min. then complex extracted with ethanol .The mole-ratio method has been used to determine the structure of chelate (CEF - CuII) and found to be 1:1 L:M (Ligand : Metal ). Beer's Law was obeyed in the range 10-130 and 5-60 µg/ml for UV-Vis and AAS respectively. Limit of Detection and Limit of Quantitation LOD values for these methods were(1.6906 ,0.6081 ) µg/ml and LOQ ( 5.6355, 2.02710) µg/ml respectively .the method was validated and successfully applied to drug formulations like Cefix capsules marketed in Iraq. The results of analysis have been validated statistically and by recovery studies and were found satisfactory.



# **Effect of Aqueous Extract of Clove ( *Syzygium Aromaticum*) Against Pathogenic Fungus *Alternaria* Spp. Isolated from Skin Infections**

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## ***Abstract***

Aim of the Study of this work is to evaluate the potential antifungal activity of clove aqueous extracts against *Alternaria* spp. as well as, the smallest concentration capable of inhibiting or preventing their growth, during the period from April 2017 to April 2018, cross sectional study of 48 patients done with 26 of them established diagnosis with *Alternarias* pp , From them 5 females 19.3% and 21 males 80.7% with ages range of 17-55 years, study was done in Al-karamaTeaching Hospital, ,*Altenaria* species isolated from skin lesion taken from patient in dermatology department in the hospital, the lesion was excised and cultured on potato dextrose agars(PDA) ,and sabaraud dextrose agar (SDA) colonies developed ,effect of clove aqueous extract with three concentrations (5%,10 % and 20%) was assessed by agar diffusion plate method, The radial growth of colonies has been measured and on the basis of these values the percentage of inhibition of colony growth has been calculated, the outcome displayed as tables and figures, the antifungal activities of aqueous extract of clove against *Alternaria* spp. Was assessed by measuring diameter of colonies in PDA and, SDA which found to be 4cm in PDA with 44.4% growth inhibition percentage ,and colony diameter was 5cm in SDA at 5% concentration with 55.5% growth inhibition percentage, comparing with control which show 9 cm colony diameter in both PDA, and SDA, While no growth detected in both SDA and PDA at 10% and 20% concentration comparing with control with 100% growth inhibition percentage. Our result shows growth dependent effect on extract concentrations, with decrease growth by increase concentration of extract in conclusions the findings of the present study indicate that the clove aqueous extract in different concentration has interesting potential effect as a natural therapeutic option against fungi that are pathogenic to humans.

## **Effect of sertraline and fluoxetine drugs on some hematological parameters and histological changes in male , biochemical laboratory rats *Rattus norvegicus***

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### **Abstract**

The current study was designed to determine the effect of sertraline and fluoxetine drugs on some hematological, biochemical and histological change of male rats. The animals were divided into five groups (each group consisting of 6 males), the first group ( the control group ) was injected with the physiological solution NaCl 0.9%, the second group was injected with 10 mg / kg of Sertraline, the third group was injected with 20 mg / kg of Sertraline, the fourth group was injected with 5 mg / kg of fluoxetine and the fifth group was injected with 10 mg / kg fluoxetine . The results showed a significant decrease ( $P \leq 0.05$ ) in RBC, PCV and Hb concentration, and significant increase ( $P \leq 0.05$ ) in WBC and PLT counts (except for the second group in case of WBC) in all treated groups. The results showed a significant increase ( $P \leq 0.05$ ) in the concentration of cholesterol and blood sugar and a significant decrease ( $P \leq 0.05$ ) in concentration of total protein and albumin in all treated groups compared with the control group .The kidney tissue showed histological changes such as infiltration of inflammatory cell, congestion , hemorrhage, renal glomerular distraction and loss, renal tubular hypertrophy. Results of liver tissue showed histological changes, including central venous congestion, hemorrhage, and infiltration of inflammatory cell, increased number of Kupfer cells and expansion of sinusoids.

## **Hematological effects of Ochratoxin A in male albino rats**

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### **Abstract**

This study was designed to study the hematological effects of standard OTA on twenty male rats equally divided into four groups according to the following oral daily doses 0 , 70 ,140 and 210  $\mu\text{g/kg}$  b.w. representing control ,T1 , T2 and T3 respectively for twenty days. Total RBCs count and its abnormalities percent (reticulocytes, acanthocytes and teardrop cells percent) results showed significant increase ( $P<0.05$ ) in T1 , T2 and T3 groups compared with the control one in dose dependent manner . PCV and Hb showed no significant change. Total WBCs counts significantly increased ( $P<0.05$ ) in T1, T2 and T3 treated groups as compared with the control one.

## **Frequency of Microbial infections among Oncology patients; Microbial etiology, Immunological assessment and drug-resistance spectrum profile of bloodstream infections in patients with cancer**

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### ***Abstract***

**Objectives:** This analysis accustomed be rendered in accordance with analysis the discipline on complaint transmission of issue rule infection (BSI) among medical specialty sufferers into Al Hillah Hospital, Iraq, as well as spotlight embark regarding the nearly wide known causes, complexities, nonetheless antimicrobial susceptibilities between BSI.

**Materials and Methods:** This examination accustomed be directed at associate complaint focus inside Merjan Hospital as well as remorseless increase patients. Blood culture checks sent inside the assessment concerning sufferers along with scientific finishing over symptom leukopenia From Apr 2015 in imitation of Gregorian calendar month 2016 were examined. The microbiological then anti-microbial affectability styles had been examined. **Conclusions:** BSI in these patients was caused mainly by Gram-Negative (>60%) bacteria and was associated with a low case-fatality rate. These results are consistent with worldwide experience of BSI in oncology.

**Urogenital Infection and Male Infertility: The Presence of Leukocyte in Semen is Associated with Decrease Fertilization Potential of Human**

**Spermatozoa in Infertile Patients affected with Leukocytospermia**

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***Abstract***

This study was designed to evaluate the effects of seminal leukocytes contamination determined by peroxidase-positive leukocytes on semen characteristic of leukocytospermic subjects. Fifty (25 leukocytospermic vs. 25 non leukocytospermic) infertile couples collected from Al-Hussein Teaching Hospital/ Thi-qar Health Directorate enrolled in this study and semen samples were analyzed before and after in vitro sperm preparation technique. Furthermore, sperm concentration, sperm motility, progressive sperm motility, normal sperm morphology, and seminal leukocytes counts were evaluated according to standard WHO criteria (2010). For preparation technique, sperm prepared and incubated for 30 minute in 5% CO<sub>2</sub> at 37°C. The results of present study shows that leukocytospermic men significantly ( $P < 0.001$ ) decreased and differences sperm functions compared with non leukocytospermic men may be due to ROS generation by leukocytes. It was concluded that the increase seminal leukocyte counts lead to impaired sperm parameters and decrease fertilizing ability of human spermatozoa and sperm function improved and augmented after sperm processing technique. Further studies are recommended to assess the harmful outcomes of ROS on DNA damage and embryo quality after intracytoplasmic sperm injection (ICSI).

## **The Role of Levofloxacin Versus Doxorubicin In Induced Aberrant Crypt Foci In Mice**

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### ***Abstract***

This study is conducted for investigation the role of levofloxacin versus doxorubicin in abolishing induced aberrant crypt foci (ACF) in mice. forty adult Balb/C male mice used in this study, Thirty of them were intentionally induced aberrant crypt foci by azoxymethane and assigned as following . Group one G1 (control positive) without administration of any medicines, group two G2 administered levofloxacin 25 mg/kg. BW orally for four weeks, group three G3 administered doxorubicin 50 mg/m<sup>2</sup> once a week orally beginning one week after the last dose of AOM and the second dose repeated after 2 weeks ,continued for 4 weeks , the other ten mice neither induced aberrant crypt foci nor treated with any medicines as assigned as control negative , The results showed there were significant  $P<0.05$  decrease in ACF of both treated groups(G2 and G3) in comparison with control positive (G1). While proliferating cell nuclear antigen (PCNA) scoring of colorectal tissue revealed significant  $P<0.05$  decrease in PCNA labeling index of both group two and group three when compared to control positive. In conclusion: regarding to the current results, levofloxacin has a potential role to counteract the colorectal preneoplastic tissue in mice.

## Isolating and Diagnosis Some Genus of Fungi That Found in Environment Air and Soil in Different Region of Wasit Governorate

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### *Abstract*

This study was carried out in the first half of May 2018 in wasit governorate in Iraq to isolate some fungi that are important in their human health or its economic side. It was isolated and diagnosed from the soil and air from various areas in wasit governorate include the regions: Technical Institute/Kut, kafaat, Tammoz, Damok, Nu'maniyah, Al- Debone and Aziziyah. This study included four sites for each region and four replicates for each site, using 112 cultivars for the growth and diagnose of fungi in the regions and sites studied. These genus of fungi were identified depend on based "phenotypic ,microscopic and the growth of fungi on media culture PDA and SDA. The results showed that the most common fungal species in the air were Aspergillus, which showed that the higher emergence percentage reaches 91.57% and the emergence percentage of the fungi , Penicillium, Rhizopus, Mucor and Ustilago was 77.57, 11.14, 8 and 7.85%, respectively. The most common emergence percentage of the fungi species in the soil environment were Fusarium, Cladosporium, Pythium, Pytophthora, Rhizoctonia Microsporum, Aspergillus and Penicillium. The percentage of the incidence of these fungi was 34, 19.28, 19, 15.42 12.85, 10.71, 7.85 and 6.42% in the regions and sites were studied.

## **Study the phytochemical analysis and modulatory effects of hydroalcoholic extract of Morus plant leaves on mental depressive disorder**

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### ***Abstract***

Decrease the levels of monoamine neurotransmitters and oxidative stress are essential factors that involve in the pathogenesis of depression . Morus alba leaves contain polyphenols and flavonoids that are known to inhibit Catechol-O-Methyl transferase (COMT) and monoamine oxidase (MAO) and have the free radical scavenging property which may be beneficial for treating depression .The study was carried out to evaluate the antidepressant activity of hydroalcoholic extract of Morus alba leaves after acute (7 days) and 14 days of treatments which compare with standard antidepressant drug imipramine by using two models of depression tail-suspension and forced swim tests .In acute study , mice were divided into four groups , five mice each. Group I was pretreated with distilled water (-ve control). Group II was pretreated with standard drug imipramine (+ ve control) at a dose of 10mg/kg where as group III and IV were pretreated with hydroalcoholic leaves extract of Morus alba at doses of 200 and 400 mg/kg respectively .All the drugs were given orally (0.1 ml/10 g) for both acute and after 14 days of treatments .Thirty minutes of drug administration the immobility times (seconds) of treated mice were recorded in Both TST and FST. In the study after 14 days of treatment procedures were performed with another four groups of mice which arranged the same as that in acute study .Results were analyzed by using one way ANOVA test , Which showed that the extract of Morus alba at the above doses significantly ( $P < 0.05$ ) reduced the immobility times in both the tests compared to control in both acute and after 14 days of treatment .The reduction in the immobility times at the dose of 400 mg/kg were comparable to imipramine .The phytochemical analysis of hydroalcoholic extract of Morus alba leaves revealed the presence of alkaloids ,phenols ,flavonoids ,Tannins ,Saponins ,Steroids Glycosides and Coumarins .It can be concluded that Morus alba hydroalcoholic leaves extract have antidepressant effect in both acute and after 14 days of treatment and there were dose dependent in increasing these effects.



## Study of phenotyping and genotyping characterization of Methicillin resistant staphylococcus aureus isolates

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### *Abstract*

The current study included collection of one hundred and ten samples from patients in Baquba Teaching Hospital, in Diyala during the period from June 2018 till the end of August 2018. The specimens included swab from wounds, burns, abscesses. All isolates were diagnosed depending on macroscopic, biochemical tests and Vitek 2 it was found that 80 (72.7%) isolates were identified as *Staphylococcus aureus* and 50 (62.5%) of isolates were Methicillin resistant *Staphylococcus aureus* (MRSA). The results showed 50 (100%) of MRSA isolates have the ability to produce biofilm. In this study MRSA isolates were showed high resistance against five types of antibiotics. It was as follows; Oxacillin 100%, Tetracycline 100%, Amikacin 88%, Vancomycin 9.7%, Gentamycin 76%. MIC of Ag NPs and TiO<sub>2</sub>NPs is ranged between (325-5200 µg/ml) and (40.6-2600 µg/ml) respectively on MRSA isolates. The technique used in this study to determine genetic diversity of MRSA was MLST (Multi locus sequence typing). Seven housekeeping genes primers: *arc* (Carbamate kinase), *aro* (Shikimate dehydrogenase), *glp* (Glycerol kinase), *gmk* (Guanylate kinase), *pta* (Phosphate acetyltransferase), *tpi* (Triosephosphate isomerase), *yqi* (Acetyle coenzyme A acetyltransferase) were taken from website Institute Pasteur. Five isolates have been selected for PCR amplification reaction. Nucleotide variances were seen and specific alleles for each locus were designated. The allele profile for each isolate were designated. The allele profile for each isolate was then used to determine sequence type (ST). To the best of our knowledge, this was the first study that involved an MLST analysis of clinical *S.aureus* isolates from hospital in Diyala, Iraq.

## **Estimating LD50 And ID50 Dose of Typical *Enteropathogenic Escherichia coli* Isolates From human Infantile Diarrhea In Mice.**

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### **Abstract**

A systematic study bases on the tow aspects which were bacteriology and clinical singe aspects was done experimentally to Enteropathogenic *Escherichia coli* (EPEC) isolate from cases of human infantile diarrhea on (BALB/e) mice. The present investigation was carried out on twenty mice of male sex with age range (6 - 8 ) week old , used to estimating lethal dose (LD<sub>50</sub> ) and infective dose of this organism.

In the bacteriological aspect, the results showed the LD<sub>50</sub> was ( $1 \times 10^6$  cells) and infective dose (LD<sub>50</sub> ) was ( $1 \times 10^8$  cells ) of typical enteropathogenic *E. coli* (EPEC) in mice when inject intraperitoneally. The results of the pathological aspect revealed that enteropathogenic *E. coli* cause dullness , fever ,anorexia , mild thirst , decrease activity .

# Assessment of Student's Knowledge and Beliefs about Patients' Rights

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## **Abstract**

**Objectives of the study:** A descriptive study about patient rights in hospitals was employed on probability sample of 120 students in Medical Technical Institute /Al mansour from 1 /4 /2016 to 20 /3 /2017 to assess students' knowledge and beliefs about patients' rights. **Methodology:** A questionnaire was constructed as assessment tool was designed for purposes of study through experience of researcher and review of literature. It was consisted of three parts. Data was collected through personal interview with researcher from 20/4/2016 to 1/6/2016 . Analyses of data by using of frequencies and percentages.

**Conclusions:** In most students, the study concluded that there was a clear discrepancy in level of students' knowledge and beliefs about patient rights. And most of the correct answers have been adopted by the sample spontaneously through public information through the Internet and not through scientific courses or lectures based on scientific rules, which requires reconsideration according to seminars and courses on this aspect.

## *Fast foods consumption pattern and perception among University students*

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### ***Abstract***

A cross-sectional study was carried-out assess pattern and perception of students regarding fast foods consumption. Study sample was selected (120) students randomly at Medical Technical Institute Baghdad. The questionnaire format was constructed and composed from socio-demographic data, and knowledge about fast foods and pattern of its consumption, and body mass index was calculated for each one. The data was calculated though personal interview method and analyzed by using descriptive statistics. The result of the study revealed that the highest percentage of the study sample were in age group 20-24 years, female, not married, middle socioeconomic status, living at home, and body mass index within normal weight. The highest percentage of the study sample consumption fast foods every day, the favorite type of fast foods was index, they preference to home made for convenience, taste and attractive and most them the favorite place for consumption in the restaurant for lunch time.

Regarding the study sample awareness and knowledge the result revealed to good level of awareness about the nutritional value and contents of fast foods ad also good perception about harmful effects on general health. Therefore, the study recommended, emphasize to choose food and eat healthy food, and highlighting on the harmful effects of excessive consumption of fast foods with family education.

## **Determination of Obstructive Sleep Apnea among Type 2 Diabetes Mellitus at Diabetic and Endocrine Center in Al-Nasiriyah City.**

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### ***Abstract***

**Objectives:** The study aims to: 1. To determine obstructive sleep apnea among type 2 diabetes mellitus. 2. To detect association between obstructive sleep apnea and demographic characteristics ( age , gender, duration of type 2 diabetes mellitus ..)

**Methodology:** A descriptive study design was conducted through out the present study for period from 2 September 2017 to 1st march 2018. A purposive (non-probability) sample of 100 patients, the study was conducted at Diabetes and Endocrine Center in Al- Nasiriyah City. Data were collected through the use of the constructed questionnaire and the process of the self-administrative report. The questionnaire was consisted of three parts: parents' socio-demographic characteristics (age, gender, occupation, monthly income and duration of type 2 diabetes mellitus).the second part consist of Epworth Sleepiness Scale (ESS) of Obstructive Sleep Apnea. Content validity of the instrument was determined through the use of panel experts and the internal consistency of the instrument was determined through the pilot study and the computation of Alpha Correlation Coefficient ( $r = 0.870$ ). Data were analyzed through the application of descriptive and inferential statistical approaches by using Statistical Package for Social Science (IBM SPSS) version 20.0 .

**Results:** The findings revealed that most of sample were fall in the age group 56 years old, the occupation status, the results indicated that a highest percentage of the study sample are (unemployed) and they are accounted for (80.0%).The majority of monthly income of the study sample individuals are insufficient and they are accounted (43.0 %). the majority of study sample have type 2 diabetes since (6-10 years) and account (32.0) of study sample. (42.0) of patients with type 2 diabetes mellitus have Obstructive sleep apnea. Strong statically correlation between Duration of diabetes mellitus and Epworth Sleepiness Scale (ESS) at ( $P$  value= 0.01).

# Obstetrical And Medical History Of Pregnant Women With Toxoplasmosis In Al-Najaf Province, Case-Control Study

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## Abstract

### Background

Bad obstetric history implies previous unfavorable foetal results such as consecutive spontaneous abortions for two or more, early neonatal death, have intrauterine foetal death, stillbirth, intrauterine growth retardation, and congenital deformities. The reasons of BOH might be related to hormonal effect, abnormal maternal immune response, genetic effect, and infection during pregnancy.

**Objective:** This study aims to assessment the obstetrical and medical history of pregnant women with toxoplasmosis in Al-Najaf province.

**Materials and Methods:** A case control study was conducted in Al Zahra Teaching Hospital in Al-Najaf province. The respondents in this study were the pregnant women with toxoplasmosis (cases) and the pregnant women without toxoplasmosis as (Control). The sampling population consist of 860 pregnant women with toxoplasmosis that fulfilled the inclusion and exclusion criteria. A number of 300 respondents were chosen using simple random sampling method.

**Outcomes:** Most of the participants were in the age group (21-25) years for both groups (34% and 23.3%) for case and control respectively. Most of participants in both groups have family income within range 401.000-800.000 IQD. Highest percentage of the cases had secondary level of education (22.7%). However, the control group had primary level of education (36.7%). Regarding to the occupations, most of the participants in both groups were housewives (94.7% for cases and 85.3% for control). Most of the participants in both groups were living in urban area without any statistical difference between groups. In addition, most of the cases have miscarriages (86%) following by stillbirth (18.7%), deformities (10.7%) and premature delivers (8%). However, the control group 11.3% had miscarriages 5.3% stillbirth and 45% premature delivers. It also shows that there are statistical significant differences between groups for items miscarriages stillbirth, deformities antiphospholipide syndrome and diabetes.

**Conclusion:** The odds ratio for cases was risk factor for almost 7 items of 9 of obstetrical and medical history. However, for control group was protective factors.

## **Investigation of Changes in DNA Using techniques molecular genetic of Chronic Myeloid Leukemia (CML) Patients.**

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### **Abstract**

The use of molecular genetic techniques from modern techniques used to identify damage to the DNA molecule. In this study, a high-precision technique was used to identify other genetic changes that lead to cellular changes at the molecular level causing damage and changes to the DNA molecule. We have used complete sequencing technique and information management to compare these markers although we have identified many new forms and differences in genes for chronic myeloid leukemia patients. Those differences that can be identified It is easily disaggregated by a simple fractionation of the sequence polymerization reactions (PCR) of NOTCH4 and *FAM46A*, genes. , we then assessed the presence of these differences in about 30 patients and compared the results with 10 samples of healthy subjects.

## **Role of Transforming Growth Factor-B1 (T29C) Gene Polymorphism in Hepatic Stellate Cell Activation and Invasion and Susceptibility to Hepatitis B, C Infection in an Iraqi Patients**

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### **Abstract**

The interindividual varieties in the limit of changing development factor- $\beta$ 1 (TGF- $\beta$ 1) generation have been credited to hereditary polymorphisms in TGF- $\beta$ 1 quality. Changing development factor-beta 1 (TGF $\beta$ 1) is a powerful suppressive cytokine that adds to ceaseless hepatitis B (CHB) disease. Abberations in TGF $\beta$ 1 generation among people have been ascribed to TGF $\beta$ 1 hereditary polymorphisms. We analyzed whether three putative polymorphisms in TGF $\beta$ 1 (-509 C/T (rs1800469), +869 C/T (rs1800470), and +11929 C/T (rs1800472)) square measure connected with CHB illness during a South-Eastern Iranian people. Methods: A total of 203 subjects with hepatitis infection (94 patients with hepatitis B virus infection and 109 patients with hepatitis C virus infection) whom admitted to Margan hospital, Center of liver diseases and gastrointestinal system were enrolled in the study. Allele specific (AS)-PCR, methods were used for assessing polymorphism of IL-10. Patients included (130 males and 73 females), with an age range (HBV:  $44.6 \pm 8.2$ ), (HCV:  $45.3 \pm 13.3$ ) and (Control:  $49.2 \pm 9.04$ ) years. The practical side of this study was done during the period from October 2017 to March 2018. As pathogenesis of HBV and HCV has a hereditary foundation, this primer investigation was intended to evaluate the effect of TGF- $\beta$ 1 (T29C) on the helplessness of Iraqi to HBV and HCV disease. Genotyping was performed utilizing single stranded polymorphism-polymerase chain response (SSP-PCR). Results: TGF- $\beta$ 1 T29Cgenetic polymorphism related to hepatitis B and C virus infection; revealed that the Genotype frequency of polymorphisms of (TGF) gene in Hepatitis B, C and Control, it was revealed that TC allele was higher than others 56.10% in control, 54.26% in HBV and 55.96% in HCV respectively. Results of Allele frequency showed that T allele was higher than C (69.51% in control, 57.98% HBV and 61.01% HCV).



## Assessment of epidemiology among mumps cases during in Iraq

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### *Abstract*

**Background:** - Mumps is an infection caused by a virus. It is sometimes called infectious parotitis, and it primarily affects the salivary glands.

**Aims:** to assess the epidemiological characteristic of mumps cases according to age groups, gender by years in Iraq.

**Methods:** - Retrospective cross-sectional study was conducted at the Statistics Center of the Iraqi Ministry of Health to collect the data samples. Samples were included age, region, gender, and years. Samples were collected within six months after obtaining the ethical clearance from the Ministry of Health before conducting the research. data entered to Excel sheet and then analysis by Stata version 13. The table and graphs were used to present our data.

**Results:** -The higher frequency of infection 958 in the age groups 5-14 years followed by 687 in the age groups 1-4 years and less frequency 33 in the age less than 1 years. Also, during the 2012, the total cases of infection were 1674. The higher frequency 882 in the age 5-14 years and less frequency 9 in the age >45 years. In addition, in 2013, 2014, 2015, 2016 and 2017, the higher frequency 991, 607, 4417, 47166 and 19778 in the age groups 5-14 respectively.

**Conclusions and recommendations:** - The male cases of infection were more than female. the higher percentage of infection was occurred during 2016. We need to make an effort to educate people about the risk of mumps through seminars .in addition, the use of social media as a means of raising awareness in educating mothers about adherence to the schedule of vaccines on time.

# **A comparative Study Between Traditional And Innovative Medical school students Perceptions and attitude regarding The Effectiveness Of Patient Safety In Medical Education**

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## **Abstract**

Patient safety is a new discipline in a health care that determine the medical errors which leads to adverse events and it is a fundamental principle of health care. The simplest definition of patient safety is the prevention of errors and adverse effects to patients associated with health care . The study aim is to compare between traditional and innovative medical school students perceptions and attitude regarding the effectiveness of patient safety in medical education

**Introduction**  
Health care services have improved considerably in the light of medical advances; however, these advancements were considered as major threats to health care industry [1]. For example, in 1999 the US Institute of Medicine (IOM) estimated 44000–99000 deaths every year as a result of preventable medical errors [2]. Other studies have indicated adverse events as an international concer

**Methods :**  
A cross- sectional study was carried out in both medical schools ( Mosel & Tikrit ) during the period from 1<sup>st</sup> February/ 2014 till the end of May / 2014 after receiving administrative agreement and a verbal consent was taken from each teacher before establishing the study Medical students from both collages and two stages were selected randomly (Third & fourth ) and (180) students were participated in the study . A special questionnaire form has been designed by the investigator included five main dimensions prepared for that purpose. The results show that medical students from third and fourth stage from traditional school go with the needed for adequate reliable reporting system for patient safety registration (47.7% and 47.3%) .Fourth stage from traditional and innovative school agree with the effective strategy to deal with the medical errors carefully as an preventive measure (60.0%, 72.7%) respectively . The study concluded that engagement of formal curriculum on patient safety in medical education is necessary .

# **knowledge and attitudes of medical and dental collage and paramedical students toward hepatitis b virus infection in wasit governorate**

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## **Abstract**

Aiming to assess the knowledge and attitudes towards Hepatitis B Virus infections and association between knowledge and attitudes of students and their demographic characteristics, a cross sectional study had been conducted in Medical college students, Dental college students in university of wasit and paramedical students (community health student and laboratory student). The data collection was carried out for a period of one months from the 1st of January 2019 to the 1st February 2019, The sample size consists of 322 students. The sample selection was convenient sample. Data collection was done by previously designed data sheet as questionnaire through face to face direct interview. The results of demographic data of the studied sample showed that more than half of the sample selected (61%) were males and the majority (70%) falls in the age group of (20-29) years, the majority were single (91%). There is no significant difference between age groups of students and their knowledge, ( $P = .053$ ), but the type of education and their attitude high significant ( $P = 0.000$ ), Gender and their knowledge ( $P = .000$ ), type of education and their knowledge ( $P = .000$ ), and show in our study non-significant difference has been found between marital status and their knowledge ( $p = .315$ ). No significant difference has been found between marital status and their attitudes ( $p = .928$ ), but show high significant difference has been found between and their attitudes ( $P = .000$ ). It can be concluded that the knowledge toward Hepatitis B Virus infection by paramedical students is poor and their attitudes is unacceptable.

# **Prevalence of Intestinal protozoa in sheep and handlers in some areas of Wasit province**

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## **Abstract**

Zoonotic Intestinal protozoa found in sheep and handlers typically cause diarrhoea, once there are appropriate conditions within the enteric lumen that promote the parasite multiplication. This study aimed to research the cyst and trophozoites infection in sheep and handlers. One-hundred eighty faecal samples from sheep and 50 stool sample from handlers, were collected from 3 completely different areas (Al-Hafriya, Al-Suwaira, and Al-Azizia) in Wasit governorate .Fecal samples were examined directly and by staining methods to observe enteric protozoa cysts and trophozoites. Al-Suwaira showed highest infection rates, (91.66%)(87.5%) respectively, in sheep and handlers. Male described higher infection rates than female in sheep and handlers (90.69%)(75%) respectively . in conclusion, this study approved the incidence of zoonotic enteric protozoa infection in sheep and handlers.

## **Nephrotoxic Effect of Antipsychotic Drug Risperidone : Protective Role Extract of *Urtica dioica* leaf in Male Stressed Rats**

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### **Abstract**

This research was designed to investigate the ameliorative effect of *Urtica dioica* leaf extract on the kidney function against Risperidone . Thirty adult male rats were randomly divided to 3 equal group and handles as follows for 4<sup>th</sup> weeks : control group were administered tap water group G1 ; group G2 rats of this group had been administered risperidone **2 mg/kg orally only** ; group G3 rats of this group had been administered risperidone **2 mg/kg orally** plus ethanolic extract of *Urtica dioica* ( 100 mg/kg) . blood sample were obtained at 15 and 30 days of the experiments for estimation of serum uric acid concentration , serum urea nitrogen concentration , serum creatinine concentration , serum peroxynitrite concentration. Significant increases in serum uric acid concentration , serum urea nitrogen concentration , serum creatinine concentration , and in serum peroxynitrite concentration in group G2 (risperidone treated group ) . On the other hand , the results showed the beneficial effects of *Urtica dioica* leaf extract to improvement the previous parameters against risperidone (G3) , through a significant decrease in concentrations. Histological section show atrophy and acute necrosis in renal tubules in group G2 , while no clear pathological lesion in G3 group . Therefore , it could be conclude that *Urtica dioica* exert a protective action to alleviating the oxidative stress induced by risperidone stressed rats.

# **Nursing Students' Knowledge about Risk Factors of Infection among Patients with Hematologic Disorders at College of Nursing, University of Baghdad**

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## **Abstract**

**Background:** people may be affected by many different types of blood conditions and blood cancers. Approximately every 4 minutes, someone in the United States is diagnosed with a type of blood. Furthermore, as stated by the European Hematology Association (EHA), an estimated 80 million people are currently affected with blood disorders in the European Union (EU). Consistently, blood cancers (e.g. Hodgkin's lymphoma, non-Hodgkin lymphoma, multiple myeloma, and leukemia) are one of the 10 most common forms of cancer and are responsible for approximately 100,000 deaths in Europe every year.

**Objective:** assessing the nursing students' knowledge about the risk factors of infection among hematologic disorders patients, in which an approach of assessment was applied to achieve that.

**Methodology:** a descriptive design study was conducted during November 3rd, 2017 to May 3rd, 2018. A purposive (non- probability) sample of 100 students from the forth academic stage was involved. Data were collected through the use of the questionnaire format by using the self-administrative approach with those students from both morning and evening studies. Data were analyzed through the application of descriptive and inferential statistical approaches by using Statistical Package for Social Science (SPSS) version 20.0.

**Results:** more than half of students were males; the highest percentage of the study sample was aged twenty one years old, the majority of the students who participated in the study were from the morning and they were not working. More than half of them were living in dorm room. Severity of mean score for students' level of knowledge was moderate as general. The males, morning study, the students not working besides their studying, and living in a dorm room were the major dominates of the sample with a moderate knowledge level related to identifying risk factors of infection for patients with hematologic disorders.

**Prevalence, Knowledge, Attitude, and Practices of Narghile  
Smoking among Al-Nasiriya Technical Institute Students, Iraq:  
A Descriptive Cross-Sectional Study**

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**Abstract**

To assess the prevalence, knowledge, attitude, and practices of narghile smoking among a sample of students in Al-Nasiriyah Technical Institute, a descriptive cross-sectional investigation utilizing self-administered questionnaire was directed during 2017 including 350 male students. General descriptive statistics were used to analyze the data. Of the 350 participants, there were 65 (18.57%) smokers, 22 (34%) of them smoke narghile only, 15 (23%) smoke cigarettes only and 28 (43%) smoke both of them. About 91. % of non-smoking thought that narghile was dangerous for health, with majority believe that narghile smoking leads to addiction and contain more nicotine than cigarettes. Friends and social trend were the common factors for initiation of narghile. The non-smoking students were more aware of hazards of narghile smoking than smokers. Most of the smokers believed that narghile smoke was a good source of stress relief and fill free time. Many of the narghile smokers 47.7% reported that at least one of their family members was a narghile smoker. Most of the non-smoking students support a law prohibiting the narghile smoking . There was awareness about the hazards of narghile smoking but smoking it was relatively common among those students. More prominent endeavors must be put toward teaching students about the dangers of smoking to keep it's from developing.

## **Effect of alpha Lipoic Acid Role on Some Hormonal Profile in Adult Male Wister Rats Exposed to Hydrogen Peroxide (part III)**

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### ***Abstract***

The present study was aimed to investigate the role of alpha lipoic acid (ALA) on reproductive hormonal profile in adult male Wister rats treated with hydrogen Peroxide. Forty adult male rats were divided randomly into four equal groups (10 rats /group) and were handled daily as follows for 56 days: Control group (C) were intubated distilled water and received tap water ; group T<sub>1</sub> were intubated 60mg/kg B.W of ALA and received tap water; group T<sub>2</sub> administered hydrogen peroxide H<sub>2</sub>O<sub>2</sub> in tap water at concentration of 0.05%, while group T<sub>3</sub> were intubated 60mg/kg B.W of ALA and received ordinary tap water containing 0.05% H<sub>2</sub>O<sub>2</sub>. Blood samples were collected at 0, 28 and 56 days of the experimental periods for measurement of serum follicular stimulation hormone (FSH), lutealizing hormone (LH) and testosterone (T) concentrations compared to other treated groups. The results revealed that group T<sub>2</sub> showed a significant decrease in FSH and testosterone concentrations. While there were significant increase in previous parameters in T<sub>3</sub> group compared to T<sub>2</sub> group. Whereas, rats in group T<sub>3</sub> shows significant improvement in above serum hormonal profile by repairing role of alpha lipoic acid against hydrogen peroxide in ( group T<sub>2</sub>). In conclusion, alpha lipoic acid mitigated the deleterious effect of that-induced H<sub>2</sub>O<sub>2</sub> induced pituitary-testicular dysfunction through antioxidant mechanism by free radical scavenging properties



## **Conventional and molecular diagnosis of oral candidiasis in Iraqi Patients**

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### **Abstract**

Oral candidiasis is the most common human fungal infection in babies and elderly. The infection may pass to babies during breastfeeding (milk of mother). In elderly the infection occurs among persons who wear dentures, diabetes mellitus and is a common problem among the immunocompromised. This study aimed to isolate and diagnose of the oral candidiasis using conventional and molecular methods. (50) samples have been collected from patients suffering from oral candidiasis who attended AL-Zahra Hospital in AL-Kut city , Iraq, during the period from August 2017 to February 2018. Samples were CHROMagar culture and API 20 Candida stripe for initial identification of *Candida* isolates. Germ tube test, chlamydospore formation were also performed to reinforce identification. DNA isolates was extracted for polymerase chain reaction (PCR) methods and analyzed using UV transilluminator and then photographed using digital camera.

## **Isolation and Evaluation of Antibacterial Activity of Bacteriocins Produced by *Bifidobacteria sp* Against *Staphylococcus aureus***

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### **Abstract**

This study included detection of bacterial antimicrobial activity produced from *Bifidobacteria sp* on isolates of *Staphylococcus aureus*. Eighty sample different bovine species (feces, milk, soil and vaginal swab) were collected isolates to *Bifidobacteria sp* and Fifty five sample different bovine (nasal discharge, wounds and ear swab) isolates to *Staph. aureus* in northern Basra province. culture characteristics of the colonies, microscopic examination and biochemical tests showed that 10 isolates belonging to *Bifidobacteria sp*. The *Bifidobacteria sp* isolates were tested for fermentation the results showed the dominance of *Bifidobacteria longum* of the other species we represented *Bifidobacteria bifidum*, *Bifidobacteria reve*, *Bifidobacteria adrescentis*, *Bifidobacteria thermoacidophilium* and *Bifidobacteria sp*. The results showed that most of the isolates of *Bifidobacteria sp* were effective against *Staph. aureus* isolates using the diffusion technique of hole and disc agar. The diameter of the inhibition zones ranged from 10-25 mm and tested the ability of *Bifidobacteria sp* isolates to produce bacteriocines against *Staph. aureus*. *Staph. aureus* with the diffusion technique and the isolation (*Bifidobacteria bifidum*2) was higher ( $P < 0.05$ ). It was observed that the highest production of bacteriocins at the development of isolates in the media of liquid MRS at pH 6 and at 37 ° C .

# Study of relationship between asthma and obesity in Al zahraa center for asthma Allergy in Baghdad city

م م سرى عكاب يوسف  
المعهد التقني صويرة

م م سميحة ناصر عبد  
المعهد التقني كوت

## Abstract

**Background :** Recently, the occurrence of asthma and obesity has increased. In this study, the main aim is to examine if asthma and obesity are related.

**Methods and patients :** Samples which collected from patients who attended Chest Diseases Department, Al zahraa Center for Asthma Allergy between August 2017 and April 2018. A total of 100 individuals aged 6–73 with a mean age of met the entry criteria.

**Results:** In this study the most common age of cases and control was <20 years which represents 68% and 52% of study population respectively . Mean of body mass index (BMI) was observed in asthmatic patients ( $23.85 \pm 6.248$ ) when compared to non -asthmatic subjects ( $25.68 \pm 5.744$ ), with no association ( $p\text{-value} = 0.091$ ). A significant association was found between asthmatic patients when they were compared with that of control groups ( $p = 0.000$ ) for all Spirometrical results.

**Conclusion :** Current study shows that asthma is more common in patients under twenty years old. Obesity show not significant decrease in asthmatic patients as compared to healthy control group. Spirometrical changes are common in asthmatic patients . All spirometrical result show highly significant decrease in asthmatic patients as compared to healthy control group

## **Abundant active ingredients of green tea regulate glucose metabolism in 3T3-L1 cell line**

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### **Abstract**

Adipose tissue has a crucial role involving in regulation of glucose and lipid metabolism dysfunction of adipose tissue can disrupted glucose and lipid regulation process which both are a hill marks of obesity, insulin resistance and type 2 diabetes (T2D). Recently, green tea and its abundant active compounds showed several potential health benefits including amelioration this impairment, however, the mechanism of this effect is not yet fully understood. Therefore, the effect of epigallocatechin gallate (EGCG), epicatechin (EC), and epicatechin gallate (ECG) on glucose uptake and utilisation in 3T3-L1 (adipocyte), and the possible mechanism of this impact were determined. Glucose uptake in the presence of adenosine 5'-monophosphate-activated protein kinase (AMPK) and protein kinase B (Akt) inhibitors, triglyceride and glycerol released, cell viability, and metabolic gene expression were investigated. Selected green tea compounds significantly increased glucose uptake without alteration cell viability, and this biological changing was suppressed by additive Akt inhibitor molecule. A remarkable reduction in cellular triglyceride and glycerol released were seen, which suggesting the compounds suppressed adipogenesis and lipolysis, however measurement of adipogenic and lipolysis gene expression showed no significant alteration. In conclusion, these active compounds of green tea could regulate glucose and lipid metabolism through activating phosphoinositide 3-kinase (PI3K)/Akt possibly its downstream signaling, and therefore could be a potential anti-obesity and anti-diabetic agent

# **Communicable diseases between human and animals in of Iraq marshlands**

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## ***Abstract***

Environmental risk factors in marshland of Iraq are play an important role in increasing chance of infection with diseases especially zoonosis. Iraqi southern marshes which form a triangle region bound by three major southern cities, Thi-Qar to the west, Maysan to the northeast and Basrah to the south. The three major marshes: Al-Hammar, the Central marshes and Al-Huwaiza marshes form the core of the marshlands of southern Iraq. There are many parasitic communicable diseases dissemination in villages of Iraqi marshlands such as black fever (Kala-azar), Baghdad boil, Malaria, Toxoplasma, Hydatid disease and other diseases caused by parasitic worms. The people in the villages of marshlands are famous with fishing and hunting birds, there are many cattle, sheep, buffaloes, birds, dogs and some wild animals like jackals that live in the border of the villages.

## ological analysis and evaluation of the effectiveness of the mumps surveillance programme adopted in Babylon province during the year 2017

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### Abstract

**Background:** The outbreaks of the wild mumps virus continues in certain parts of the country despite the wide application of immunization programs.

**Objectives:** The goal of the study to determine the factors that cause an outbreak of mumps and low averages of vaccination, to assess effectiveness and failure of a vaccine surveillance program in Babylon governorate / Iraq during the year 2017.

**Methods:** This study was performed in 147 health centers of the Public Health Directorate in the governorate, through mumps cases recorded and reported by the Directorate during the period January 1, 2017 to December 31, 2017, After that has been statistic and evaluate the performance of monitoring the vaccination program in accordance with the principles of the WHO in Iraq and the world.

**Results:** Of the 3176 suspected cases, 1864 (58.69%) confirmed cases of mumps. The results showed that people aged <1-10 years were the most vulnerable about 612 (80.74%). Mumps incidence in rural areas was higher than urban areas in the Babylon province {954 (68%), 910 (54.23)} respectively, male casualty percentage 1375 (64.40%) topmost of female 489 (46.97%), and also, people immunized with one dose of the vaccine at least were less susceptible to mumps compared to people who did not vaccinate, which was 968 (57%) and 661 (64.43%), respectively.

**Conclusions:** Mumps remain an important cause of the disease in the Babylon province / Iraq. Proper vaccination coverage as recommended by WHO, as well as rapid reporting on cases of suspected are all important factors for the elimination of infection in Iraq and Babylon province in particular.

## **Effect of oxygenated water alone or with Vaccines and Antibiotics on immune response against viral diseases and intestinal microflora community in broiler chickens**

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### **Abstract**

This study was conducted to investigate the effect of providing oxygenated water with or without vaccines and antibiotic on immune response against Newcastle disease ( ND ), Infectious Bronchitis disease ( IB ), Bursal disease ( BD ), total aerial bacteria, coliform bacteria and Lactobacilli bacteria in broiler chicks. A total of 160 broiler chicks ( Ross 308 ) one day old were randomly distributed to 4 groups each with 4 replicates ( 10 birds/ replicate ) as follow : group 1 ( C - ) tap water without vaccines and antibiotic, group 2 ( C + ) tap water with vaccines and antibiotic, group 3 ( OW - ) oxygenated water without vaccines and antibiotic, group 4 ( OW + ) oxygenated water with vaccines and antibiotic. Blood samples were collected two times on days 21 and 42 of age to measure antibiotic titers against ND, IB and BD diseases. Microbial count for total aerobic bacteria, coliform bacteria and lactobacilli bacteria were evaluated at the end of the study ( 42 days old ). The results indicated that the antibody titers against ND, IB, and BD disease was significantly higher ( $p < 0.05$ ) in group OW + ( $390 \pm 380.44$ ) and ( $4731.9 \pm 71.6$ ) followed by group C + ( $2123 \pm 241.1$ ) and ( $3610 \pm 14.7$ ), group OW - ( $192872.3 \pm 4$ ) and ( $2128 \pm 32.7$ ) and finally group C - ( $924 \pm 11.2$ ) and ( $605 \pm 10.3$ ) for the age group 21 days and 42 days respectively. There were no differences among experimental groups in total aerobic bacteria. The lactobacilli bacteria significantly ( $p < 0.05$ ) increased in the different experimental groups as follow OW + ( $7.01 \pm 0.33$ ), OW - ( $6.01 \pm 0.52$ ), C - ( $5.63 \pm 0.31$ ), while the coliform bacteria values were significant lower ( $p < 0.05$ ) in WO+, C +, OW - and C - and it was ( $4.74 \pm 0.33$ ), ( $5.67 \pm 0.81$ ), ( $6.74 \pm 0.46$ ) and ( $7.09 \pm 0.39$ ) respectively. These results indicate that providing oxygenated water with vaccines and antibodies may be recommended as a cofactor to improve immune response against common viral diseases and pathogenic bacteria in broilers.

## **Impacts of date palm seeds (*Phoenix dactyliferous* L.) on common carp *Cyprinus carpio* L. biological indices and blood pictures**

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### **Abstract**

This study was carried out to study the effect of using date palm seeds powder as feed ingredient in fish laboratory of Animal Production Department, College of Agricultural sciences of Sulaimani University, Iraq, Using 75 common carp fingerlings weight  $62 \pm 2$  gm, to test the effect of three different levels of the date palm seed. The control treatment T1 with 0 gm date palm seed., (T2) with 2.5gm date palm seed, and (T3) with 5 gm date palm seed. At the end of experiment a dissection of all fish were done for study some blood parameters of tested fish showed that T1 has significant differences in Red blood cells count 2.113, hemoglobin values were high significantly in T1 and T3 with 11.575 and 11.000 respectively. Hematocrits was higher in T1 46.750 while no significant differences observed in Platelets. No significant differences were in monocytes, lymphocytes and granulocytes count among treatments. Some biological parameters studied such as Hepatosomatic index in which T2 was higher significantly 1.515, no significant ( $P < 0.05$ ) differences obtained from Splenosomatic index, Intestine length and Condition factor, T3 was higher in Gill index and Kidney index with 3.874 and 0.576 respectively.



## **Colony Morphology and *pelA* , *pslD* and *algD* genes in *Pseudomonas aeruginosa* isolated from Baghdad Hospitals.**

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### **Abstract**

*Pseudomonas aeruginosa* is emerging as an important pathogen in both hospital and community acquired infections, as a result of its ability to produce biofilm formation and resistance for many antibiotics. In current study, Sixty three isolates belonging to the *P.aeruginosa* were isolated from different clinical sources and individually screened for antimicrobial susceptibility. The results showed high resistance of isolates for cefotaxime 87.3%, 52.38% of isolates were resistance to carbenicillin and 11.11% to colistin. Colony morphology was determined on congo red agar , *pelA* , *pslD* and *algD* genes were detected using PCR technique. All isolates were produced thin layer pellicle at air-liquid interface and mucoid, smooth, semi-wrinkled colonies on congo red agar. Only 5 isolates revealed different fragments of *pelA*1,2 and *pslD* genes. On the other hand, 72.41% of isolates were carrying *algD* gene. The appearance of colonies is evidence of mutations especially in *pel* genes, but some of them appeared with orange color. Depending *algD*, *pelA*, and *pslD* results, and phenotype detection, in this study most of the local isolates are mucoid as a result of incidence of *algD* gene among these isolates and high frequency mutations of *pel*, and *psl* genes, suggesting that biofilm formation process depends on alginate as essential ESP apart from Pel and Psl matrices.

# ***Changes in value of some blood parameters before and after hemodialysis***

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## **Abstract**

A study was carried out on 50 patients with chronic renal failure in Kirkuk hospital. Blood samples were taken before and after haemodialysis to measure blood urea nitrogen and serum creatinine level and hemoglobin.

### ***Objective of the study***

Determining the changes that occur before and after the dialysis process, which gives a better understanding of the number of times the kidney dialysis patients and the organization of a table suitable for the days of dialysis and give these indicators a deeper understanding of the body detoxification after the process of dialysis and also contribute to identify the appropriate food for them which ultimately benefit the patients Kidney failure.

### ***Conclusion:***

The serum urea and serum creatinine And Hb are decrease after haemodialysis Because haemodialysis are as Worker to filtration in the patient with renal failure. The level of S. Urea & creatinine will low by instrument of haemodialysis to remove of residues of urea & creatinine that affected on patient as toxic substance.

# The Role of Levofloxacin Versus Doxorubicin Cadmium Chloride Toxicosis in Mice

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## Abstract

**Aim:** study sort of interaction between zinc sulfate and cadmium chloride.

**Method:** sixty albino mice divided equally into four groups as following (Toxic dose of cadmium chloride 5mg/kg B.W (T1); Zinc sulfate 10mg/kg B.W (T2); their combined dosing (T3) and control group. (C) given D.W. At the end of experiment, all the animal sacrificed and their liver is dissected and prepared for histopathology also, another part of same liver submitted to homogenization process to determined level of metallothionein 2 (MTII) and malondialdehyde (MDA).

**Result:** histopathology of liver section revealed in cadmium dosed group, a necrosis in hypatocyte, vascular degeneration, diffusion of mononuclear cell and neutrophill infiltration around dilated blood vessels, congestion of blood vessels around portal area and parenchyma, apoptosis of hepatocyte characterize by fragmented nuclei with irregular cytoplasm. While no lesion were recorded in liver section of zinc sulfate dosed group. In combined dosed group, liver section showed either no lesion or less severe lesion consisting of local aggregation of active macrophage and lymphocyte. Result of MTII in liver homogenate recorded highly significant increase in all treated group especially in combined dosed one that showed increase up to 3.3 times; while cadmium and zinc alone dosed group recorded increase 2.1 and 1.9 than control one. The result of MDA in liver homogenate showed highly significant increase level in cadmium toxic dosed group up to 17.8 times, while zinc sulfate group showed only 1.6 time increase than control and combined dosed group that showed no level differences.

**Conclusion:** result of liver histopathology and MTII / MDA levels were indicative the protective role of zinc administration to overcome sub chronic cadmium toxicosis by increase their MTII binding protein that reduce the toxic effect or levels of cadmium induce cellular lipid peroxidation damage.

## **Assessment of quality of life of patients with spinal cord injuries in IBN Al- kuff Hospital in Baghdad**

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### **Abstract**

**Abstract:** Objectives: this study aimed to identify and study most properties of quality-of-life (QoL) in patients with spinal cord injury, and to find out relationships among distribution of an overall assessment quality of life improvement and socio-demographic characteristics variables as well as general information among spinal cord injury patients.

**Methodology:** A cross sectional study (descriptive study) was conducted to evaluate quality of life in patients with spinal cord injury. A convenient, purposive sample of 100 adults patients with spinal cord injury who have been diagnosed and treated by Ibn Al Kuff spinal cord injury Hospital in Baghdad City where they admitted for treatment and rehabilitations. This study applied format of World Health Organization quality of Life-BERF questionnaire related to spinal cord injury .

**Conclusion :** The study concludes that the spinal cord injury most common occurs among persons in urban residential area than in those in rural. Spinal cord injury most occurs in male than in females. Spinal cord injury does not affect the continuity of the person's marital relationships. Also the study confirmed that the spinal cord injury affects positively on the continuity of the persons jobs. In addition, the study indicates that the external trauma is the most common cause of the spinal cord. Moreover, paraplegic injury is the most common level in spinal cord injuries than tetraplegics injury. Also the incomplete injury is the most common type of spinal cord injuries. And, the spinal cord injury associated with many complications involves all the body system.

## **Anti-inflammatory and Analgesic Activities of The Heart of Date Palm Extract In-vivo**

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### **Abstract**

**Abstract:** *Phoenix dactylifera L* or tree of the Date palm is common in North Africa and the Middle East such as states of the Arabian Gulf states including the Iraq. As our knowledge there are no researches studied the anti-inflammatory effect of the ethanol extract of palm tree heart. Therefore, our study focus on an investigating its anti-inflammatory effect in vivo. The anti-inflammatory effect is estimated by using an acute inflammatory model such as egg albumin induced paw oedema and chronic inflammatory model such as cotton pellet induced granuloma as well as detection of total phenols. The current study demonstrated that ethanolic extract of the heart of date palm has a strong anti-inflammatory effect, in both models its exhibited anti-inflammatory effect in a dose and time-dependent manner.

## **Challenging key dogmas regarding skeletal muscle stem cells and their relationship to metabolism and regenerative capacity**

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### **Abstract**

Skeletal muscle is a highly compliant tissue that is composed of muscle fibres, nerves, sensory cells, blood vessels and connective tissue. A central concept of skeletal muscle biology is the existence of an inverse relationship between muscle fibre size and its oxidative capacity which has been used to explain why small fibres are oxidative and large fibres glycolytic. Moreover, it has been shown that the numbers of satellite cells (the resident stem cells of skeletal muscle) are positively correlated with the oxidative muscle phenotype. Consistently, several studies have demonstrated that the genetic manipulations which induce muscle oxidative properties accelerate muscle regeneration capacity. Observations of this work, firstly, challenge the notion of a constraint between skeletal muscle fiber size and oxidative capacity. Secondly, indicate the important role of the microcirculation in the regenerative capacity of a muscle even with low population of satellite cells.

# Relationship between Diabetes Mellitus and prostate cancer in some Iraqi patients

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## Abstract

**Background:** Diabetes and cancer are common diseases with tremendous impact on health worldwide. Epidemiologic evidence suggests that people with diabetes are at significantly higher risk for many forms of cancer. The aim of this study is to find the association between diabetic and prostate cancer in diabetes mellitus patients

**Methods and patients :** A (100) male were divided into (50) patients with type 2 diabetes mellitus(T2DM), (25) patients with type1 diabetes mellitus(T1DM) and (25) apparently healthy person were taken from different sites of wassit governorate – Al hay city. Those patients were selected by systematic random sampling. Fasting plasma sugar (FPS), glycated hemoglobin(HbA1C), Prostate specific antigen (PSA), Testosterone(T) levels were determined for both patient and control subjects. Testosterone and prostate specific antigen was measured by ELISA. (Enzyme-linked immunosorbent assay). While, enzymatic and colorimetric methods were used for glucose test and glycated hemoglobin.

**Results :** Their age ranged between (21-78) years, the result recorded that the mean age of the men ( $51.12 \pm 13.05$ ) was among T1DM and most of patients (64%) were less than 50 years of life whereas the mean age ( $50.88 \pm 9.06$ ) among T2DM and most of patients (62%) were more than 50 years. Serum PSA levels (normal range  $<4.0$  ng/ ml) were measured with Enzyme-linked immunosorbent assay (ELIZA). Serum PSA levels were lower ( $1.81 \pm 1.41$ ) in patients with T1DM when compared with T2DM ( $2 \pm 2.60$ ) and with the healthy control group ( $1.32 \pm 0.63$ ). The mean levels of testosterone among diabetic (T1DM, T2DM) and non-diabetic groups were estimated. The results of the mean levels of testosterone were similar for the diabetic patient's (T1DM:  $6.72 \pm 2.74$  and T2DM:  $6.46 \pm 2.48$ ) when compared with non-diabetic groups ( $7.27 \pm 2.55$ ). Only 10% of T2DM having elevated testosterone levels with normal PSA, while 10% of those patients with elevated PSA and normal testosterone. In addition, 16% of T1DM having elevated PSA levels have normal testosterone whereas, 16% of those patients having elevated testosterone and normal PSA.

**Conclusion :** There were inverse correlation between prostate specific antigen (PSA) levels and diabetes mellitus. Serum PSA was lower in T1DM in comparison with T2DM.

## **Hormones FSH , LH Relationship Polycystic Ovaries Syndrome(PCOS) and Delay Pregnancy in The Woman**

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### **Abstract**

Polycystic ovary syndrome (PCOS) this is very important considered cause of endocrine disorders and infertility. One of the most important symptoms of this disease is the presence of large ovaries on the many and small kysts in both ovaries ' outer layer , and this are considereed the most common reason for reproductive menstrual disturbance age and the maybe the most prevailing endocrinological disorder impact on the women. For this disease observe many of the Metabolic disorders such as height in the serum levels of luteinizing hormone (LH) and follicle - stimulating hormone (FSH) are very common in these patients compared to health women with women PCOS is this disease will affect long-term women (Amir *et al*, 2016). On the other hand the normal function for the reproductive endocrine include the wide range hormones controlled by complex feedback mechanisms . It is very important observation luteinizing hormone (LH) serum levels, follicle - stimulating hormone (FSH), estradiol and progesterone follow a cyclical pattern closely coordinated by the hypothalamic - pituitary - gonadal axis, since LH, FSH, estradiol and progesterone play such a key role in the reproductive function of women. In the diagnosis, treatment and monitoring of many different conditions, measurement of the serum concentration of these hormones is important (Reto *et al* ,2006).



# **Molecular and Antimicrobial study of *Pseudomonas aeruginosa* isolated from human and cow's milk**

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## **Abstract**

One hundred ten human eye, ear, burn, and wound swabs and 153 cow's milk samples were tested for *Pseudomonas aeruginosa* isolates. All samples were streaked on blood and MacConkey agar, then the suspected colonies sub-cultured on (special media) chromogenic and cetrimide media. The isolates were identified according to their colony morphology, gram staining, conventional biochemical reactions and analytical profile index 20E (API 20E). PCR assay used for confirmation presence of *P. aeruginosa*. The results showed *P. aeruginosa* in 11.4% (30/263), with 21.8% (24/110) from human samples and 3.9% (6/153) from cow's milk. PCR with species specific 16SrRNA gene (956 bp) verified that 100% isolates were *P. aeruginosa*. Antimicrobial susceptibility test was conducted to all isolates (30 isolates) using 13 antimicrobial agents. The human isolates of *P. aeruginosa* showed varied percentages of resistance to Cefepime (95.8%); Aztreonam (87.5%); Tarcillin and Ciprofloxacin (41.6%); Levofloxacin, Netilmicin and Piperacilin (37.5%); Tobramycin (25%); Ceftazidime (16.6%); Gentamycin and Amikacin (12.5%); Meropenem (4.16%) and no resistance to Imipenem (0%), while the isolates of *P. aeruginosa* from cow's milk showed other varied percentages of resistance to Cefepime (83.3%); Tarcillin (66.6%); Aztreonam and Ciprofloxacin (33.3%); Levofloxacin, Netilmicin, Gentamycin, Ceftazidime and Meropenem (16.6%), and no resistant to Imipenem, Piperacilin, Tobramycin, and Amikacin (0%). Results suggest PCR confirmed *P.aeruginosa* strains and the Antimicrobial susceptibility to differences between human and cow's milk isolates.

## Serological Diagnosis of Hepatitis A Virus Among Children with Acute Viral Hepatitis in AL-Kut City

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### Abstract

In this study, 150 blood samples were randomly collected from patients (non-immunized children) with clinical suspect of acute viral hepatitis of age groups ranging from 1-15 years of both sexes who were admitted to the Al-Karama Educational Hospital, during the period from August (2018) to January (2019) in AL-Kut City.

All 150 blood samples were tested for diagnosis of hepatitis A virus by serological, and biochemical tests. Also, 50 blood samples were taken from normal healthy individuals who were involved as a control group. Anti-HAV IgM and IgG antibodies were detected and observed in that 78 out of 150 samples (52%).

Some biochemical tests were investigated and used as a confirmation test of (HAV), and the results showed that a mean  $\pm$  standard deviation (SD) of TSB, ALT, AST, and ALP were  $13.387 \pm 6.812$ ,  $771.982 \pm 14.281$ ,  $697.146 \pm 13.734$  and  $331.659 \pm 8.38$ , respectively.

On the other hand, the most affected age group among patients was (6-10) years which formed (47.4%) from total study cases while the percentage seems to be almost identical in both (1-5), (11-15) years (25.6%) and (26.9%) respectively. Also, the males were more frequent than female among patients.

## **Biochemical and molecular diagnosis of *Escherichia coli* and *Pseudomonas aeruginosa* isolated from UTI patients**

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### **Abstract**

**Background/Aims:** A total of (75) clinical isolates of gram negative bacteria primary identified as *Escherichia coli* and *Pseudomonas aeruginosa* were collected from Samples from nine hospitals in Baghdad included: AL-Kindy General Teaching Hospital, Ibn-Al Balady Hospital, Teaching Laboratories in Medical City, ,Education Baghdad Hospital, Al-Kadhymia teaching Hospital in Medical City for six month. From March to August, 2018 in Baghdad city .They were obtained from mid stream urine from patients suffering from urinary tract infections. The isolates were initially identified by culturing on MacConkey agar and blood agar then diagnosed by performing some morphological and biochemical tests. A confirmatory test as a final diagnoses was done using api20E system. According to this, the 75 isolates were distributed as 45 isolates of *Escherichia coli* while the remaining 35 isolates were *Pseudomonas aeruginosa*.

Antibiotics sensitivity test was done by used 24 antibiotics, the isolates were drug resistance. The *Escherichia coli* isolates showed resistance as follow Amoxicillin and Tobramycin high resistance about 78.6% but high sensitive Ticarcillin/Clavulanic acid and Piperacillin 93.3%, while were *Pseudomonas aeruginosa* isolates showed high resistance Nitrofurantoin and Amikacin 78.6% but Norfloxacin showed high sensitive 93.3% and Levofloxacin 92%.

## Folic Acid Supplementation Role on Bone Marrow and blood cells morphology during Methotrexate Treatment

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### Abstract

This study was aimed to investigate the effect of folic acid on the hematological picture and bone marrow of rats treated and none treated with methotrexate. A total of 40 adult rats were divided in to 4 groups, C- control group, F- received 0.07mg/kg B.wt folic acid daily, M-were received 0.03mg/kg B.wt Methotrexate three times a week. FM- received folic acid daily and methotrexate three times a week. After the end of the experiment which lasted for 8 weeks, blood and bone marrow samples were taken. The results of MTX group reveal abnormal RBCs shape. The bone marrow smears reveal a case of megaloblastic anemia characterized by mild erythroid hyperplasia. The myeloid: erythroid ratio is 8:1. The group of animal that received FA with MTX showed a good prognosis which characterized by high significant improvement of studied parameters. The myeloid: erythroid ratio was 3:1. Therefore, it was concluded that FA administration with Methotrexate corrected the deleterious effects of MTX on erythrocyte parameters and bone marrow.

# The dual-behavior of some cellular and hormonal constituents of Rabbit adrenal in response to environmental changes

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## **Abstract**

This study was designed to demonstrate the effect of environmental variations (summer and winter) on some cellular and hormonal constituents of rabbit adrenal. The study revealed that the wide range of temperature between summer and winter in Iraq presents clear histological changes. The adrenal capsule showed invaginated areas in both seasons. The adipose tissue of adrenal gland was minimized in winter time to the half. When white adipose tissue subjected to cold, it changes to brown then dissipates. On the other hand, the thickness of zona glomerulosa was enlarged in summer time, Whereas, in winter time, the zona fasciculate and adrenal medulla were activated and thickened. The study regarded both seasons as stress seasons, however, summer time was twice stressful than winter time. The seasonal variations in thickness of adrenal zones with constant of the total thickness of that gland indicates that there was a cellular exchange between these zones. This variation was on the expense of one another, therefore when a cell from one zone transports to another zone, it takes the functional characters and serves that new zone. The study suggested that metabolism was twice higher in winter time than summer time. Despite that Cortisol was secreted in winter time profusely, unexpected, the study noticed that the level of serum cortisol in summer time was more than doubled that of winter time. Therefore, serum cortisol proportionates with aldosterone and behaves differently in summer and winter. The study regarded cortisol as thermoregulatory hormone. Finally, the study hypothesized that there was a dual behavior of some cellular and hormonal constituents of adrenal in response to environmental changes.

## Sero-prevalence of Helicobacter Pylori among Staff & Students in faculty of Pharmacy / Kufa University

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### Abstract

**Background:** Helicobacter pylori (H.pylori) is a kind of bacteria that inhabits in the gastrointestinal tract and has a tendency to attach the gastric lining of stomach. It infects roughly 60% of the world's population. The infection with H.pylori is commonly harmless, but it is responsible for the majority of ulcers in the gastrointestinal gut such as stomach and small intestine. As well as, H. pylori is a major pathogenic cause for gastro duodenal ulcer disease, and gastric carcinoma. Since of fluctuating epidemiologic conditions, changing the resistance patterns with therapeutic implications, besides the new information concerning to the indications for pathogen eradication, the medical controlling of H.pylori is still dynamic process and need periodic caring. **Objective:** to investigate the sero-prevalence of H. pylori infection among students and staff from faculty of pharmacy / Kufa University as a foundation for early detection for this infection and identify the epidemic state of this infection between selective people. **Methods:** 90 serum samples collected from undergraduate students and staff in the faculty of pharmacy/Kufa University (Najaf, Iraq). Collection samples period was from 15-19 April 2018, and then they tested for anti-human IgG using Combo one-Step Rapid Test Cassette. 100 µl of each serum sample was aseptically transferred to the H. pylori antigen kit. The two distinctive red lines showing in the control and regions of the kit after 10 minutes indicated positive reaction. A questionnaire used to collect demographic and personal data for each person. **Results:** Of the 90 blood, samples enrolled for this study, serological evidence for the frequency or prevalence rate of H.pylori infection was 26 (28.9%). Analysis of seroprevalence of H. pylori infection revealed that the prevalence was higher in female (33.3%) than in male that appeared less percentage. In addition, the results of this study showed that the high percentage (54.5%) of H. pylori infection appeared in age more than 35 years, as well as blood group A has more likely to be infected with H.pylori. **Conclusions:** The detection of Helicobacter pylori infection using blood test found that moderate to low prevalence among staff and students in one faculty of Kufa University

## **Evaluation the protective role of alcoholic extract of Ginger (*Z. officinale*) in comparison to Omega-3 fatty acid on doxorubicin induced cardiac and hepatic toxicity in adult male rabbits**

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### **Abstract**

The present study aimed to evaluating the protective role of alcoholic extract of ginger in comparison to omega-3 against doxorubicin-induced cardiac and hepatic damage in adult male rabbits. Thirty adult male rabbits were randomly divided into six equal groups and were treated for 28 days as follows: group1, animals were gavaged with distilled water and injected with normal saline and considered as a control group; rabbits in group2 were injected with 3 mg/kg B.W. of doxorubicin twice a week; animals in group3 were gavaged orally with 250 mg/kg B.W. of alcoholic extract of ginger daily along the experiment; rabbits in group 4 were gavaged with 250 mg/kg B.W. of alcoholic extract of ginger daily and injected with 3 mg/kg B.W. of doxorubicin twice a week and group5 were gavaged with 40 mg/kg B.W. of omega-3 daily and injected with 3 mg/kg B.W. doxorubicin twice a week. While, rabbits in group 6 were gavaged daily with 250 mg/kg B.W. of alcoholic extract of ginger and 40 mg/kg B.W. of omega-3, in addition to injection of doxorubicin twice a week. At the end of experiment, blood samples were collected for measurement serum ALT, CPK, GSH, Peroxynitrate radical, total cholesterol (TC), triacylglycerol (TAG), High density-lipoprotein-cholesterol (HDL-c), low density-lipoprotein-cholesterol (LDL-c), very low density- lipoprotein-cholesterol (VLDL-c), total bilirubin and serum albumin concentration, in addition to ECG were recorded and histological sections taken from heart and liver for histopathological study. The results clarified significant increase in serum ALT and CPK activity, peroxynitrate radical, total bilirubin, TC, TAG, LDL-c, and VLDL-c concentration, with a significant increase of serum GSH and albumin concentration in rabbits treated with 3 mg/kg B.W. doxorubicin (group2). On the other hand, rabbits treated with alcoholic extract of ginger or omega-3 or both in combination with doxorubicin revealed a significant decrease in ALT and CPK activity, peroxynitrate radical, total bilirubin, TC, TAG, LDL-c, and VLDL-c concentration, with a significant increase of serum GSH and albumin concentration comparing to the animals treated with doxorubicin alone. Besides, the result of ECG showed absence of the significant difference compared with control group. Histological examination of heart in doxorubicin treated group (group2) revealed edema between muscle fibers, vacuolation and fragmentation of cardiac fibers, as well as inflammatory cells infiltration and congested blood vessels between muscle fibers. Moreover, the liver showed vacuolar degeneration of hepatocyte, congested blood vessels and mononuclear cell infiltration in liver parenchyma, while the histological changes in groups treated with ginger extract and /or omega-3 fatty acid in combination with doxorubicin improved.

In conclusion, the results of this study indicated the protective role of alcoholic extract of ginger against doxorubicin-induced cardiac and hepatic damage, besides, combination with omega-3 fatty acid gives better results.

## Isolation and diagnosis of some bacteria and fungi causing women diseases

فرح علي  
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### Abstract

The study included (105) samples of women complaining of clinical symptoms of bacterial vaginitis, of whom (80) women were pregnant and (25) women non-pregnant, with their ages ranged between (15-50) years during the period from 2015 to 2016.

The results showed that the higher number and percentage of bacterial vaginitis was among pregnant women 60(72%) when compared with non-pregnant women 9(36%).

Bacteriological examinations of the isolates showed that the highest rate of infections was caused by *Gardnerella vaginalis* (51.5%), followed by *Staphylococcus* (22.5%), and *Klebsiella* (10%), while fungal infection rate with candida was (15%).

The highest rate of vaginitis was among the age group (21-27) years (41.9%), followed by the age group (15-21) years (19.0%) due to sexual activity and high hormonal levels.



# **Toxicopathological Effect of Paraquat (PQ) and olive oil as antioxidant on Adult Albino Male Rats Epididymis**

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## ***Abstract***

Paraquat (PQ) is a commonly used herbicide that induces oxidative stress via reactive oxygen species (ROS) generation. This study aimed to investigate the effects of the antioxidant (olive oil) against PQ induced oxidative stress in rats. Male rats (48) were randomly divided into 4 groups which administered orally and daily for six weeks as follows: distilled water (C), 3mg PQ & 2ml Olive oil Kg B.wt (T1), 3mg /Kg B.wt PQ (T2) and 2ml/Kg B.wt Olive oil (T3) respectively. The animals sacrificed after 2,4,6 weeks to estimate the histopathological effect of paraquat and olive oil as antioxidant on adult male Epididymis of rats. There was a marked vacuolar degenerated deciliation of tubules with cellular debris containing immature rounded sperms with thickening of interstitial stroma and fibrous thickening of capsule as well as focal infiltration of inflammatory cells and some foreign body giant cells in the lumen of tubules was seen also focal reduction in epithelial cell height. The lesion showed severe destruction of epididymis structure. With tubular atrophy & partial absence of sperms. Later increase the sperm amount inside the tubules and congested blood vessels thickening of capsule and interstitial stroma, macrovacuolation, necrosis, infiltration of inflammatory cells mainly lymphocytes & neutrophils in the lumen of tubules with cell debris and absence of sperms when examined at late stage of experiment. While the olive oil group showed no clear lesions. Conclusion: there Paraquat effect on male reproductive system revealed from the histopathological changes of male reproductive organ (epididymis).

## **Phylogenetic Study of Echinococcus granulosus based on COX1 and NAD1 gene isolated from human in Wasit province-Iraq**

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### **Abstract**

Twenty five hydatid cysts were surgically removed from patients who underwent surgery for Hydatid cysts disease ( Hydatidosis) at hospitals Al-Zahraa and AlKarama in province of Wasit, between October2014 to June 2015. The microscopic examination of cyst fluid revealed limited number of dead protoscolices in cyst fluid to determination of viability of in cyst and then DNA was extracted from the cyst fluid. PCR technique was performed using conventional method for cox1gene amplification and nad1 gene amplification. It was used in this study gene sequencer method and phylogenetic tree analysis were done on five samples of PCR products to determine the parasite genotype; the results were revealed presence of four strains was sheep strain (G1) genotype and one strain buffalo strain (G3) genotype in human whereas sheep strain (G1) more cause infection than anther strains in human and to compare with the degree of identical in Wasit province, Iraq, with some relative countries such as Iran, Jordan, Morocco and chain.