Ministry of Higher Education and Scientific Research
University of Mosul
College of Pharmacy

Under the auspices of His Excellency the Minister of Higher Education and Scientific Research

Mr. Ali Mohammed Al-Hussain Al-Adeeb

In the presence

Prof. Dr. Ubay Sa'eed Al-Dewachy

Chancellor of the University of Mosul

2\textsuperscript{nd} National Conference of Pharmacy
"Development and innovation in pharmacy"

Mosul, Iraq

30 – 31 October 2013

Conference Program and Abstracts
Welcome to …

2nd National Conference of Pharmacy

"Development and innovation in pharmacy"

Conference president and committees chairmen

Conference President: Ass. Prof. Dr. Wafaa M. Al-Shaikh

Chairman, Organizing Committee: Prof. Dr. Faris T. Al-Abachi

Chairman, Scientific Committee: Prof. Dr. Faris A. Ahmed

Chairman, Public Media Committee: Mr. Thamer Ma’ayouf

Chairman, Financial Committee: Prof. Dr. Khalid M. Daoud
منهاج فعاليات المؤتمر الوطن الثاني لكلية الصيدلة/ جامعة الموصل

اليوم الأول

الأربعاء 30/10/2013

9,00 التسجيل

9,30 افتتاح المؤتمر

9,40 تلاوة مباركة من القرآن الكريم

9,50 كلمة السيد رئيس الجامعة

10,00 كلمة السيد عميد الكلية

10,10 محاضرة الافتتاح: "الواقع الدوائي في العراق الموصل نموذجا" 

أ.د. فارس عبد الموجود أحمد

10,30 افتتاح المعارض
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<td>Wafaa M.A. Hamed, Mohammad A. Al-kataan</td>
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<td>2</td>
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<td>Zahraa A. Hashim, Nawfal Y. Al-dabbagh</td>
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<td>Effect of metformine on ghrelin serum level in type 2 diabetes mellitus</td>
<td>Mohammed Nabel Mohammed, Nahla O M Tawfik</td>
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<td>Noor Nooraldeen Abdul-Kader Al-Hafidh, Imad Abdul-Jabbar Thanoon</td>
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<td>Myasar Alkotaji, Alain Pluen</td>
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<td>Oral candidal colonization in immunocompromised patients</td>
<td>Zahraa S. Kasim, Manahil M. Yehia</td>
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<td>Effect of conventional and sustained release sodium valproate on serum leptin and some liver function tests in epileptic patients</td>
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<td>Identification and estimation of metoclopramide in rat blood by high performance liquid chromatography</td>
<td>Zena Sattam Hamad, Basil Mohammed Yahya</td>
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<td>Application of genomic and proteomic techniques to create an expression profile for drug transporters at the blood brain barrier in human and rat</td>
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<td>Phytochemical and cytotoxic studies of polyphenolic flavonoids contents of Urtica dioica</td>
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<td>Mannal Abd AL-Monim Ibrahim</td>
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<td>Faris A Ahmed, Shahba A Al-Bayati, Imad AJ Thanoon</td>
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<td>Nohad A AlOmari*, Mahmood H Jasim, Mohanad A AlFahad</td>
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<td>Mohammed N Abed, Mohammed W Khalil, Waleed Zaki Kh</td>
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<td>Maymona K. Yehya, Abdul Rahman A. Altae</td>
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<th>The histological changes of the rat liver after administration of imatinib mesylate: an experimental study</th>
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Abstracts
The Effect of aqueous extracts of *Zingiber Officinale* (Ginger) on lipid profile, lipid peroxidation and beta-lipoprotein shift ratio

Wafaa M A Hamed*, Mohammad A Al-kataan**

Department of Pharmacognosy, **Department of biochemistry, College of Pharmacy, University of Mosul

Objectives: The aim of this study was to determine the effect of ginger as hypolipidemic agent in newly diagnosed hyperlipidemic patients.

Material and Method: This study was carried out in department of Clinical Pharmacy from October 2009 to January 2010, and under approval of scientific and ethics committee in department. Sixteen patients of either sex with age range 30-65 years, body weighing range 58-84 kg were selected for the study from outpatient clinic in Al-Zahrawi private hospital.

Result: The aqueous extract of the rhizomes of *Zingiber Officinale* (ginger) showed no significant effects on all lipid profile parameters except total cholesterol (TC), low density lipoprotein (LDL-C), lipid peroxidation which was measured by malondialdehydes MDA also showed significant reduction after ginger therapy. Moreover Beta-lipoprotein shift ratio (BLSR) showed significant reduction after ginger therapy.

Conclusion: Consumption of aqueous extract of ginger every day for 30 days decreased TC, LDL-C, BLSR and MDA with increase in high density lipoprotein (HDL-C) concentrations. So it be use as adjunctive agent to the primary therapy of such disorders.

Key words: Z. officinale, aqueous extract of ginger, lipid profile.
Comparison of anti-cyclic citrullinated peptide antibodies test with IgM- rheumatoid factor in the diagnosis of rheumatoid arthritis

Zahraa A Hashim *, Nawfal Y Al-dabbagh**

*Department of Clinical Laboratory Sciences, College of Pharmacy. **Department of Microbiology, College of Medicine, University of Mosul

Objectives: 1-To measure the serum levels of anti-CCP and IgM-RF in the Rheumatoid Arthritis (RA) patients and the control groups. 2-To evaluate and compare these diagnostic tests in the terms of sensitivity and specificity and to determine the test which yields the best combination of sensitivity and specificity in the diagnosis of RA. 3- To assess the effect of treatment on anti-CCP antibodies level.

Patients and methods: Blood sample were obtained from 55 patients with established RA attending the Rheumatology Ward of Ibin-Sina Teaching Hospital during the period of 1st November 2010 to the 1st June 2011 and 35 apparently healthy controls. Anti-CCP antibodies and IgM-RF were measured using enzyme linked immunosorbent assay (ELISA). Patients demographic data, disease duration, treatment history and joint deformities were recorded.

Results: Sensitivity was highest for IgM-RF test (58.18%) followed by anti-CCP test (56.3%). Specificity was highest for anti-CCP test (97.14%) followed by IgM-RF test (82.85%). A combination of the two tests improve the sensitivity and specificity for RA diagnosis to reach 59.5% and 100% respectively. Of a special diagnostic value was the detection of positive anti-CCP antibodies in 3/23 (11.5%) of IgM-RF negative patients. Twenty out of thirty two cases receiving MTX (with or without other treatment) were anti-CCP positive. It was found that despite having a negative anti-CCP assay and receiving MTX , a
number of patients had an active disease state and developed mild joints deformities.

**Conclusions:** The study suggests that despite a lack of specificity, IgM-RF continues to be a central part of the definition of RA due to favorable sensitivity profile. Anti-CCP test is a powerful diagnostic tool of high specificity especially in RF negative RA patients. A decreased anti-CCP titer could be seen in patients treated with MTX.

**Keywords:** Rheumatoid arthritis; anti-CCP; rheumatoid factor; methotrexate.
Effect of metformine on ghrelin serum level
in type 2 diabetes mellitus

Mohammed Nabel Mohammed* Nahla O M Tawfik**

*Department of Pharmacology, College of Pharmacy, **Department Dental Basic sciences, College of Dentistry, University of Mosul

Objective: Is to determine the changes in ghrelin serum level in type 2 DM and the effect of metformin on ghrelin level.

Patients and method: The study was carried out in Al-Wafaa medical center from October 2011 to March 2012. The study groups consist of control group (10 male and 10 female) healthy subjects and another three type 2 DM patient groups. The 1st group composed of 15 newly diagnosed type 2 DM patients who did not take any medication yet. The 2nd and 3rd groups composed of patients who administered 500 and 1000 mg of metformin respectively (20 patient for each). Blood samples had been collected from them. Ghrelin serum levels were estimated using Enzyme-Linked Immune Sorbent Assay (ELISA).

Results: The study shows that mean ghrelin serum level seems to be significantly higher in diabetic patients' group using metformin 1000 mg daily when compare with control diabetic patients group (P < 0.05). Mean ghrelin serum level is significantly higher in patients treated from 6 months to 12 months in comparison to control diabetic patients group (P < 0.05).

Conclusion: Metformin increases ghrelin serum level in diabetic patients and this increment was related to the dose and duration.

Key ward: Diabetes, Ghrelin, Metformin.
Effects of topiramate versus valproate on serum leptin level, lipid peroxidation and lipid profile in epileptic patients

Noor Nooraldeen Abdul-Kader Al-Hafidh, Imad Abdul-Jabbar Thanoon

Department of pharmacology, Collage of Medicine, University of Mosul

Objectives: To assess and compare body mass index (BMI), serum leptin, lipid profile parameters (total cholesterol "TC", triglyceride "TG", low density lipoprotein "LDL", high density lipoprotein "HDL" and athenorgic index "AI") and lipid peroxidation presented by serum malondialdehyde (MDA) levels in epileptic patients on valproate (VPA) and topiramate (TPM) monotherapy for at least 6 months taking in consideration dosage and duration of therapy, in comparison to healthy controls.

Methods: A cross-sectional, case-series study design was adopted. Seventy-eight epileptic patients were chosen and divided into 2 groups. Group one included 37 epileptic patients on TPM monotherapy and group two included 41 epileptic patients on VPA monotherapy. In addition, 40 healthy subjects were chosen as a control group. Fasting blood samples were taken from both the patients and controls and assay of serum leptin, Lipid profile (TC, TG, HDL) and MDA levels, with calculation of LDL, AI. Body mass index were calculated using special equation.

Results: By comparison, of epileptic patients with controls, there was a highly significant difference in serum MDA levels in patients on TPM monotherapy, with a highly significant difference in BMI and serum MDA levels in epileptic patients on VPA monotherapy. Concerning the effect of different doses, there was a highly significant reduction in serum TC in epileptic patients on TPM therapy at the dose of 200 mg/day. While there was a highly significant differences in TC, TG,
HDL in epileptic patients on VPA monotherapy with doses of greater than 600 mg/day.

**Conclusions:** In epileptic patients, VPA therapy was associated with a significantly high BMI in comparison to healthy controls. Both antiepileptic drugs was associated with raised oxidative stress as indicated by the significantly elevated MDA levels in comparison to healthy controls. Both antiepileptic drugs affect lipid profile parameters at different levels with insignificant effects on serum leptin level.

**Keywords:** epilepsy, valproate, Topiramate, malondialdehyde, leptin, lipid profile, body mass index.
Exploring the influence of Tat-derived peptide (Tat-LK15) on the uptake of membrane p-glycoproteins substrate (Calcein AM)

Myasar Alkotaji*, Alain Pluen**

*College of Pharmacy, University of Mosul, Mosul, Iraq. **School of Pharmacy and Pharmaceutical Sciences, University of Manchester, Manchester, UK

Objective: The aim of this work is to study the influence of Tat-LK15 peptide on the uptake of p-glycoproteins substrate (Calcein AM). Also this work aimed to explore whether the peptide characteristics could be exploited to improve the delivery of the cytotoxic agent, doxorubicin.

Methods: Flow cytometry technique was used to assess the P-gp related multidrug resistance levels of doxorubicin resistant sublines (HT29dx and K562dx) compared to the wild type cell lines (HT29 and K562). Additionally, the potential effects of Tat and Tat-LK15 peptides on the uptake of Ca AM were investigated for different experimental conditions including: Co-incubation of peptides with Ca AM, Pre-incubation with peptides and Pre-incubation with Ca AM and subsequent addition of peptides.

Results: Flow cytometry experiments revealed that Tat-LK15 peptide was not able to overcome multidrug resistance or to reverse the reduced uptake of Ca AM in the doxorubicin resistance sublines (HT29dx and K562dx). In contrast, Tat-LK15 peptide exhibited an inhibitory effect on the calcein fluorescence in both K562 and HT29 cell lines and their doxorubicin resistance sublines (HT29dx and K562dx). The supposed mechanism assumed that Tat-LK15 peptide may change phospholipid architecture/packing in the cell membrane leading to a reduction in the cell membrane permeability to the entry of Ca AM.
Conclusion: This study indicates the possible membrane activity of Tat-LK15 peptide, which was confirmed in a separate study submitted to be published soon.
Oral candidal colonization in immunocompromised patients

Zahraa S. Kasim*, Manahil M. Yehia**

*Department of Clinical Laboratory Sciences, College of Pharmacy, University of Mosul, Mosul, Iraq. **Department of Microbiology, College of Medicine, University of Mosul, Mosul

Objective: 1. To identify Candida species isolated from saliva of predicatively immunocompromised (cancer, diabetic) patients and control group. 2. To test the susceptibility of all the isolated yeasts against 6 antifungal agents, namely amphotericin B, nystatin, fluconazole, ketoconazole, voriconazole and itraconazole. 3. Then to compare the growth and density of yeasts from immunocompromised patients to those from healthy control group.

Patients and Methods: This study included 120 saliva samples from immunocompromised patients, 60 of them with cancer and under treatment, the other 60 patients have uncontrolled diabetes mellitus, attending the Al-Wafa'a Center for diabetic patients and the consultative clinic of Oncology and Nuclear Medicine Hospital. The clinical specimens were collected during the period from January-June 2011. In addition to 60 saliva samples from a healthy individuals. The identification of the isolated yeasts was carried by fluorescent and/or light microscope, culture on different types of media, biochemical tests and API-20 C system. Susceptibility test to six antifungal agents was prepared for each isolate.

Results: Eighty seven (72.5%) patients showed the presence of yeasts in their saliva in comparison to 18(30%) from the control group. Eighty four isolates from genus Candida identified into 8 species mainly C. albicans. The isolates showed the best susceptibility to amphotericin B.
Conclusions: A higher frequency of yeasts were detected in the immunocompromised patients in comparison to the control group. This is considered a risk factor for infection. *Candida albicans* is the main isolate but there was a shift to non–*albicans Candida* spp. in immunocompromised patients. This means that are more resistant to antifungal agents.

**Keywords:** *Candida*, saliva, immunocompromised patients
Effect of conventional and sustained release sodium valproate on serum leptin and some liver function tests in epileptic patients

Sajid Kh Ameen*, Faris A Ahmed**

*Department of Pharmacology, Mosul College of Medicine, **Department of Physiology, Ninevah College of Medicine, University of Mosul

Objectives: To compare the effect between conventional and sustained released sodium valproate monotherapy on serum leptin, body mass index (BMI) and some liver function tests including serum alkaline phosphatase (AIP), alanine amino transpherase (ALT), aspartate amino transpherase (AST), albumin, total bilirubin (TB) and direct bilirubin (DB) in epileptic patients.

Patients and methods: The study is a case control study. It included 40 epileptic patients on conventional sodium valproate at doses 400-800 mg per day, and 42 epileptic patients on sustained released sodium valproate at doses 500-1000 mg per day. Forty healthy subjects' sex- and age-matched served as controls were also included in the study. Blood samples were taken from the patients and controls and analyzed for serum ALP, AST, albumin, TB and DB. Serum leptin was also analyzed using Elisa technique.

Results: Serum leptin, ALT, ALP, AST and TB in patients treated by conventional sodium valproate were significantly (p < 0.05) higher than that in patients treated with sustained released sodium valproate. However, serum albumin was significantly (p < 0.05) lower than that in patients treated by sustained released sodium valproate. No significant change was noticed between the two groups for BMI and serum DB.
**Conclusion:** Sustained released sodium valproate may have less hepatotoxic effect and cause less weight gain than conventional sodium valproate. The reduced frequency of doses and the possibility of dosing flexibility by sustained released sodium valproate may improve compliance of the patients.
Identification and estimation of metoclopramidem in rat blood by high performance liquid chromatography

Zena Sattam Hamad*, Basil Mohammed Yahya*

*Department of Pharmacology and toxicology, College of Pharmacy, University of Mosul, Iraq.

Objective: Due to the applications of metoclopramide in clinical and experimental medicines, many methods are available for its determination in biological fluids and dosage forms. This work evaluate a rapid and sensitive high performance liquid chromatographic method for the determination of metoclopramide in rat serum.

Materials and Methods: Purified free base of metoclopramide for research purposes was provided by NDI/Nenava Drug Industry/Iraq. All solvents used were HPLC grade, and all chemicals were analytical grade: HPLC-grade acetonitrile Scharlau/Spain, HPLC-grade triethylamine Scharlau/Spain and deionised water NDI/Iraq. Analytical grade sodium hydroxide and dichloromethane were from GCC company/UK. The analyses were carried out using a chromatographic system from Shimadzu Corporation (Japan) and adult albino rats were used in this work as an animal model for collection of blood samples, from healthy adult rat not taking any kind of drug first blood sample was collected, then blood samples were collected from each animal after (15, 30, 60 min) of administration of therapeutic dose of metoclopramide (5 mg/kg) was given by i.p. route to each animal. The blood samples were centrifuged at 3000 rpm for 15 min and the serum was collected. Serum was mixed with,1M sodium hydroxide in a stoppered test tube and the tube was vortexed for about 20 seconds. The solution was mixed with dichloromethane, vortexed at high speed for 1 min. The resultant mixture was centrifuged. The aqueous layer was aspirated to a waste and the organic layer was transferred to a clean
tube. The tube containing the organic layer was placed in a water bath and evaporated to dryness. The residue was reconstituted in (100 µL) of mobile phase prior to injection into the chromatograph for analysis.

**Results:** Analyses of metoclopramide were performed at room temperature on a C18 column (4.6 mm × 250 mm I.D., 5 µm particle size) under isocratic conditions using acetonitrile: 1% triethyleamine (50:50, v/v) as mobile phase at pH 6.8 and flow rate of 1.2 mL/min. UV detector was operating at 270 nm. Better resolution of the peaks with clear base line separation is found at retention time 2.5 min. This method was validated for specificity and linearity with a correlation coefficient, r = 0.94.

**Conclusion:** this work describe a modified reversed-phase high-performance liquid chromatographic method which is rapid and sensitive for the identification of metoclopramide in rat serum and suitable for our laboratory conditions.
Application of genomic and proteomic techniques to create an expression profile for drug transporters at the blood-brain barrier in human and rat

Salah Mohammed Amin Al-Sarraf

Department of Clinical Pharmacy, College of Pharmacy-University of Mosul - Mosul, Iraq

Objective: The aim of this study was (i) study the expression of drug transporters belongs to ATP family at the BBB. (ii) Compare the expression profile of transporters in human and rat brain barrier. (iii) Evaluate the reliability of genomic and proteomic techniques in performing such study.

Materials and methods: the effect of cocaine on the permeability and integrity was tested by applying different concentration of cocaine on hCMEC/D3 human cerebral micro-vascular endothelial cell. For more biological investigations, 36 rats were injected with cocaine 10mg/kg 3 times daily with one hour interval for 10 days vs control group. The expression of RNA for specific genes was determined by real time RT-PCR.

Results: the permeability of the BBB decrease as the concentration of the cocaine increase in the incubating buffer of hCMEC/D3 cells in proportional manner. Expression of RNA and protein in cocaine-treated rats show a significant decrease in essential components of the cellular junction proteins in particularly the occludin, claudin-5 and JAM1. An increase in the expression of drug transporters BCRP was also detected at the BBB.

Conclusion: chronic administration of cocaine seems to modifies the integrity and the permeability and to less extent the transport system of the BBB almost certainly through modifying the components of tight cellular junction.
Phytochemical and cytotoxic studies of polyphenolic flavonoids contents of *Urtica dioica*

*Wafaa M.A. AlShaikh Hamed*, Nohad A AlOmari * *

*Department of Pharmacognosy, **Department of pharmaceutical Chemistry, College of Pharmacy, University of Mosul

**Objective:** The polyphenolic flavonoids found in several medical plants and herbal remedies, have been used in folk medicine around the world. The weight of laboratory studies, epidemiological investigation and human clinical trials indicate that polyphenolic chemistry have important effects on cancer chemoprevention and chemo –therapy. *Urtica dioica*(UD) "stinging nettle "has been consumed for centuries as a phyto-medical agent and as a food substance. Although its history associated with alternative remedies was remarkable but the number of its cytotoxic studies are rather scarce. Therefore, more focused phyto and medicinal chemistry studies are required to establish whether such dietary effects of UD ‘s extract can be exploited to achieve even preliminary cytotoxic effect on HEP-2 cell line.

**Material and methods:** The major compounds detected and isolated from the ethanolic extract of the aerial parts of *Urtica dioica* were determined as flavonoids by chromatographic, chemical and spectral (UV, IR) methods.

**Results and discussion:** In this paper, the down ward viability - concentration curve of the UD ‘s ethanolic extract ,using HEP-2 cell line indicate its positive cytotoxic activity. The promising results will stimulate the full phytochemical and cytotoxic studies of flavonoids for cancer chemoprevention and chemotherapy.

**Conclusion:** We believe that this one cell line study may be contradictory in part, and gives a conclusion that there’ s still a long way
to go until we do a full phytochemical investigation for UD's different polyphenolic compounds; several works addressing this matter are referred to predict a full cytotoxic profile of UD.

Keywords: polyphenolic flavonoids, *Urtica dioica*, cytotoxic activity.
Serum leptin and Body Mass Index in Patients With Pulmonary Tuberculosis: Effects of Initial Two Months Anti-Tuberculosis Therapy.

Aseel A. Abud rahman Alshahwany

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Objectives: To evaluate the effect of pulmonary tuberculosis (TB) on serum leptin and Body Mass Index (BMI) and to evaluate the effects of intensive 2-months anti-tuberculosis therapy on this parameter and BMI in comparison to healthy controls.

Material and Methods: Forty three patients with active pulmonary tuberculosis from the Advisory Clinic for Chest and Pulmonary Diseases in Mosul City were included in this study, with 40 apparently healthy age and sex matched subjects as controls. Assessment of serum leptin was done for the patients and controls. After two months with intensive anti-tuberculosis therapy (isoniazid "INH" 75 mg, rifampicin 150mg, pyrazinamide 400mg and ethambutol 275mg) 4 tablets as a single dose in the morning with vitamin B6 10mg daily, the same parameter was reassessed for the patients. Body mass index were calculated for both the patients and control using especial equation.

Results: There was insignificant difference with regard the parameter of serum leptin between newly diagnosed patients with pulmonary tuberculosis in the pre-therapy stage and healthy controls while BMI show a significant difference. After 2 months of therapy, there was a significant increase in BMI, and serum leptin.

Conclusion: In this study active pulmonary tuberculosis as a disease affects BMI but did not affect parameter that represents serum leptin. Intensive 2-months therapy with anti-tuberculosis drugs brings about a significant increase in BMI and serum leptin.
Study on the interrelationship between urinary calculi and hormonal abnormalities and urinary tract infection among patients in Tikrit district

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Objectives: The aim of the study was to explore the relationships between blood levels of PTH, T₃, T₄, TSH and renal calculi formation and the incidence of UTI.

Material and Methods: This study was conducted in Urology Department Wards and Outpatient Clinic in both Tikrit Teaching Hospital and Salahdeen Hospital. The number of the patients was 150 and they were recruited from October 2008 until August 2009. All patients had urolithiasis including 102 males with 48 females. One hundred and twenty stones were collected and submitted to chemical analysis. Blood samples were collected from patients with renal stones and submitted to serum analysis for T₃, T₄, TSH and PTH. Twenty control subjects were also involved to evaluate their serum hormones levels for comparison. Serum calcium, urine calcium, and urine phosphate were done for all the 150 patients as well as the controls.

Results: The frequency of UTI among urolithiasis patients was 42% which was greater than that of non-urolithiasis patients. Sixteen patients were having hyperthyroidism, 14 were having hyperparathyroidism and 69 patients were having hypothyroidism (i.e. 42.7% of patients with renal calculi were having hormonal abnormalities). Calcium–oxalate containing stones were the most predominant in a percentage of 72.5%.

Conclusion: The result had shown that hormonal causes might be one of the reason for the high recurrence rate of renal stones for some patients. As shown in this study elevated level of PTH was found in 9%
of the patients, hyperthyroidism was found in 11% of the patients, and hypothyroidism was found in 46% of the patients. Therefore, further study is needed in this field.

**Key Words:** UTI, urinary calculi, PTH, T₃, T₄, TSH.
Evaluation of biochemical parameters in calcium oxalate renal stone formers

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Objectives: This study was designed to analyze the metabolic and biochemical alterations in serum, urine and their relation to pathophysiology of calcium oxalate stone formation.

Patients and Methods: In this study, individuals have been classified into three groups: Group (A) included (29) apparently healthy persons of non calcium oxalate stone formers aged (20-35 years), group (B) included (16) patients with calcium oxalate renal stone aged (20-35 years) and group (C) included (15) patients with calcium oxalate renal stone aged (40-70 years). Fasting serum, random urine and 24-hours urine samples were collected from all individuals to determine urine volume, creatinine clearance, serum and urine levels of calcium, phosphate, uric acid, zinc, copper and serum levels of total cholesterol, high density lipoprotein-cholesterol and urea.

Results: Calcium oxalate stone formers group (B) exhibited significantly decreased serum levels of uric acid ($P = 0.015$), zinc ($P = 0.031$) with increased serum level of total cholesterol ($P = 0.034$) when compared to similar age group of healthy control, group (A). Urinary parameters in calcium oxalate stone formers also showed significantly increased levels of 24-hour urine calcium ($P=0.05$) and urine calcium: creatinine ratio ($P = 0.05$) when compared to healthy control. While, older age calcium oxalate stone formers, group (C) showed significantly decreased urine volume ($P= 0.015$) with increased kidney stone size ($P = 0.03$) when compared to younger age calcium oxalate stone formers, group (B).
Conclusions: Level of urinary calcium and urine volume are the most important urinary factors in enhancing calcium oxalate stone formation. While the observed changes in biochemical measurements of serum in calcium oxalate stone formers may indicate a probable metabolic relation in pathogenesis of this disease.

Key words: Nephrolithiasis, 24-hours urine collection, stone formers, calcium oxalate
Lipid peroxidation and serum total antioxidant status in patients with recurrent aphthous ulceration treated by herbal medicine

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Objectives: to evaluate lipid peroxidation and serum total antioxidant status (TAS) in aphthous patients treated locally by herbal medicine.

Patients and methods: Patients were diagnosed and treated for recurrent ulceration in Outpatient Clinic in Al-Jammhori Hospital, Mosul, Iraq, from September 2011 to February 2012. A total of 42 patients with recurrent aphthous ulceration (31 males and 11 females) and 25 healthy subjects as controls (19 males and 6 females) were included in the study. The patients were treated with aphthous cream that contained clove, thyme, mint, and liquorice, applied six times daily until cure or for two weeks. The patients were advised to use the cream for two weeks even the aphthous is healed. Blood samples were taken (5 mL) from patients before and after two weeks of treatment and other blood samples from the control group and analyzed for serum malodialdehyde (MDA) and TAS by a colorimetric method.

Results: In aphthous patients, serum MDA was significantly higher ($p \leq 0.001$) than that in controls ($1.82 \pm 0.19$ vs $1.06 \pm 0.12$ μmol/L), while serum TAS was significantly lower ($p \leq 0.001$) than in the control group ($1.16 \pm 0.11$ vs $1.70 \pm 0.16$ mmol/L). After treatment, serum MDA was decreased significantly ($p \leq 0.001$) compared with the value before treatment ($1.82 \pm 0.19$ vs $1.74 \pm 0.17$ μmol/L); however, serum TAS was increased significantly ($p \leq 0.05$) after treatment compared with the value before treatment ($1.16 \pm 0.11$ vs $1.2 \pm 0.08$ mmol/L). Both serum MDA and TAS in patients after treatment did not return to the control levels. Most of the treated patients cured from...
ulceration after 5-7 days, only two patients cured after 10 days of treatment.

**Conclusion:** Aphthous ulceration in patients raises lipid peroxidation and reduces antioxidants. Aphthous patients treated with cream contained clove, thyme, ment and liquorice, were cured within a week and the cured patients were associated with reduced lipid peroxidation and raised antioxidants status.
In-silico screening of gold-based compounds as potential non competitive inhibitors for human mitochondrial thioredoxin reductase

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Objectives: To predict if there is correlation between the already in vitro cytotoxic studied Au (III) complexes and their docking studies. It is suggested that the synthesized complexes $C_1 - C_4$ may be acting by virtue of their chelating properties at the cellular level thereby exerting their anticancer activity. We, in this article addressed this hypothesis and the Hep-2 preliminary in vitro cytotoxicity by testing a four of Au(III) complexes to analyze possible in silico to find if any correlation of previously screened novel Au(III) with S/O – ligand donating complexes and the docking study using TrxR enzyme as a putative target for Au(III) compounds, also to facilitate the elucidation of the active site optimization and finally to build up a dependable structural activity relationship.

Material and Method: The enzyme in complex with a potential inhibitor will be downloaded from the Protein Data Bank (PDB). The inhibitory binding site of the enzyme will be defined as the 8 A°-sphere of residues surrounding the inhibitor. Four gold-based compounds along with cisplatin and XAN were then docked into the defined site and their poses inside the active site were analyzed.

Results: These compounds have already shown in vitro activity against the Hep-2 cell line and this cytotoxicity compared with the results generated by the computer
Conclusion: Computer aided drug design is excellent and modern tool to correlate between the structures and inhibition properties of Au(III) complexes.
Effect of telmisartan on lipid profile and glucose level in type 2 diabetic patients with hypertension

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Objective: This study was conducted to evaluate blood pressure control, the fasting serum glucose and lipid indices in type 2 diabetic hypertensive patients after treatment with telmisartan.

Patients and Methods: thirty three newly diagnosed hypertensive patients with type 2 diabetes mellitus were participated in the study (17 males and 16 females), their mean age was 52.95±6.2 years. These patients were clinically examined to roll out any abnormality and they were kept on telmisartan 40mg as a single daily dose. Another forty apparently healthy volunteers (20 males and 20 females) who had no chronic disease and didn't receive any chronic medications, were also participated in this study as a control group, their mean age was 54.63±6.3 years. Patients blood pressure, glycemic status and lipid profile were assessed at baseline (first visit) and after 2 months' treatment.

Results: Results showed that telmisartan significantly reduced systolic and diastolic blood pressure, fasting serum glucose and glycated hemoglobin (HbA1c). Evaluating lipid profile changes revealed a significant reduction in serum triglyceride and very low density lipoprotein (VLDL) accompanied by a significant increase in HDL-cholesterol.

Conclusion: This study concluded that antihypertensive therapy with telmisartan in type 2 diabetic patients may have a uniquely beneficial metabolic effect in addition to blood pressure lowering effect.

Key words: hypertension, type 2 diabetes, dyslipidemia, telmisartan.
C-reactive protein and lipid profile in patients with polycystic ovary syndrome treated by metformin

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Objective: To evaluate the effect of metformin on serum hs-CRP levels and lipid profile in patients with PCOS in Mosul, Iraq.

Patients & Methods: This is a case control study conducted at the Fertility and Sterility Clinic in the Medical Center that belongs to Mosul Medical College / Iraq, from the 1st of November 2009 to the 15th May 2010. A group of 43 women with PCOS of reproductive age who used metformin for more than three months (metformin users), with another age- and body mass index (BMI)-matched group of 53 women with PCOS who did not use metformin (metformin non-users), were included in this study. From each patient, a 10 ml fasting venous blood sample was taken. The serum was used to measure the biochemical parameters using commercially available kits, whereas serum low-density lipoprotein cholesterol (LDL-c) was calculated using Friedewald equation. Atherogenic index (AI) was recognized by simple equation and BMI was calculated as weight in kilograms divided by the squared height in meters.

Results: This study revealed a significant lower level of hs-CRP (P = 0.04) in metformin users as compared with metformin non-users. There were a significant lower levels of total cholesterol (TC) (P = 0.003), LDL-c (P < 0.001), AI (P < 0.001) and significantly higher levels of high-density lipoprotein cholesterol (HDL-c)(P = 0.026) in metformin users when compared with metformin non-users, but a non significant reduction in triglycerides (TG) level between the two groups of patients.
Conclusion: Metformin therapy for more than three months seems to have beneficial and a favorable effects on both lipid profile and hs-CRP serum level respectively in patients with PCOS.

Key words: polycystic ovary syndrome. lipid profile, C-reactive protein.
Comparative evaluation of the effect of *Nigella sativa* extracts and nystatin as a traditional drug on *Candida albicans* in the primary school students in Mosul and Tikrit cities

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**Objectives:** To detect and compare the inhibitory effect of *Nigella sativa* extracts and compare their effects with traditional drug on *Candida albicans*.

**Methods:** Stool samples were collected from students of primary schools of about 6-12 years old. Stools were taken from students in a clean water-proof with a tight fitting container 10 ml saline as a transport medium. Each samples was transported at 37°C and examined directly under the microscope for yeast cell. The in vitro antifungal effect of the extracts at a concentration of (10, 15, 20, 25, 30, 35, 40) mg/ml on *Candida albicans* isolated was assessed and compared with traditional drug, nystatin using agar diffusion assay.

**Results:** The aqueous extract did not show any inhibitory effect against the isolated *Candida albicans*. The alcoholic extract indicated significant inhibitory effect. The inhibition zone of nystatin disc was more than that of alcoholic extract of *Nigella sativa* in concentrations used. The diameter of inhibition zone of discs treated with nystatin was 17.7 mm when treated with 100 IU (i.e. 0.06 mg/disc), while the diameter of inhibition zone of discs treated with *N. sativa* alcoholic extract was 9mm when treated with 10 mg/ml and increased to reach 17.3 mm when treated with 40 mg/ml.
Conclusion: The results of this study revealed clear potentiality of *Nigella sativa* as a source for antifungal drugs and support its use in folk medicine for the treatment of fungal intestinal infections

Keywords: *Nigella sativa* extracts, nystatin, *Candida albicans*. 
Synthesis and in vitro kinetic study of novel mutual azo prodrug for inflammatory bowel disease

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Background: Inflammatory bowel disease (IBD) refers to idiopathic inflammatory diseases of the intestine, principally ulcerative colitis and Crohn’s disease. IBD is characterized by chronic inflammation in the mucosal membrane of large intestine. 5-ASA is the gold standard for the treatment of IBD and when searched for a better 5-ASA prodrug, a novel mutual azo prodrug was designed and synthesized.

Methods: A mutual prodrug was synthesized by coupling p-phenetidine with salicylic acid. The stability of this prodrug in HCl buffer, in phosphate buffer and in rat fecal matter were monitored.

Results: The chemical structure of mutual prodrug was characterized by physical and spectroscopic techniques using FTIR, UV/Visible, 1H-NMR and 13C-NMR spectra. In vitro kinetic studies in HCl buffer (pH 1.2) showed negligible release of 5-ASA and p-phenetidine, whereas in phosphate buffer (pH 7.4) only (22.04 %) release was observed over a period of (6 hr.). In rat fecal matter, the hydrolysis of mutual prodrug was almost complete (77.96 %), with a half-life of 182.67 min, following zero order kinetics.

Conclusion: The mutual prodrug was split in colon by the action of bacterial azoreductase into 5-ASA and p-phenetidine that constitute two anti-inflammatory compounds with different mechanisms of action. Therefore, this mutual prodrug is a promising colon specific prodrug for IBD and worthy of further study.
Effects of losartan vs enalapril on the markers of metabolic syndrome

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Objective: To compare the effects of losartan and enalapril on the markers of metabolic syndrome.

Materials and Methods: One hundred and twenty six newly diagnosed hypertensive patients having other markers of metabolic syndrome participated in this study. The study was performed in the department of pharmacology, college of medicine at Ibn-Sina Teaching Hospital in Mosul city, Iraq, during the period between December 2007 and June 2009. The patients were divided into 2 main groups: 1) Losartan group: consisted of 60 patients, and 2) enalapril group: Consisted of 66 patients. Waist circumference, weight, Body mass index, blood pressure, serum glucose concentration, triglyceride and HDL-cholesterol were measured before and after administration of therapy. The effects of therapy were assessed by statistically comparing the results before and after the drug administration.

Results: Comparison of waist circumference, blood pressure, FSG, triglycerides of the patients before drug administration (baseline data), with those of the controls showed a significant elevation, while HDL-cholesterol showed a significant reduction. A significant reduction of waist circumference, BP, FSG and a significant elevation of HDL-cholesterol were also noted after therapy with both losartan and enalapril.

Conclusion: Both losartan and enalapril produced a significant reduction of markers of metabolic syndrome and may be regarded as
effective drugs for treatment of hypertension in patients with markers of metabolic syndrome.

**Keywords:** Metabolic syndrome; losartan; enalapril; hypertension.
Studying the Cytotoxic Activity of Newly Synthesized Quinoline Derivatives Coupled to Different Amino Acid Esters

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Objectives: This work aims to obtain a pharmacologically active compounds.

Methods: Quinoline was N-alkylated by the bromoacetic acid and then oxidized with an alkaline potassium ferricyanide solution to get N-alkylated quinolone. Conventional solution method for peptide synthesis used as a coupling method between the carboxy-protected amino acids with the acetic acid side chain of quinolone. The DCC/HOBt coupling reagents used for the peptide bond formation.

Results: The proposed analogues were successfully synthesized and their structural formulas were consistent with the proposed structures as they were characterized and proved by thin layer chromatography (TLC), melting point, infrared spectroscopy (IR) and elemental microanalysis.

Conclusion: All tested analogues showed cytotoxic activity on the HEp-2 cell line (tumor of larynx) with inhibitory concentration percent of (IC %) range (49.01 % - 77.67%) and these are promising data for the discovery of new anticancer agents in future.

Keywords: quinolones, quinoline anticancer, quinolines biological activity
Evaluation of conventional renal function tests in patients with β-thalassemia major using deferasirox

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Objectives: The present study was aimed to investigate renal functions in paediatric patients with transfusion dependant β-thalassemia major using deferasirox.

Patients and methods: The present study consisted of two groups of β-thalassemia patients; group A, 25 transfusion dependent β-thalassemia patients; group B, 25 transfusion dependent β-thalassemia patients receiving deferasirox as chelating agent. In addition to a control group C, 25 subjects, as a control group. Blood samples were collected and serum was separated to be tested for creatinine, urea and ferritin.

Results: There was a significant increase in the mean of serum creatinine, and a significant decrease in the mean of creatinine clearance in group B when compared with the control group (p ≤ 0.05). In addition, there was a significant increase in the mean of serum ferritin in group A and B when compared with the control group (p ≤ 0.01). On the other hand, there were no significant changes in the mean of serum urea between groups A and B when compared with the control group.

Conclusion: The results of the present study indicated no deterioration in renal functions tests in β-thalassemia patients in both group A and B regarding serum creatinine, and urea in addition to creatinine clearance, although, subclinical alteration in renal functions could be expected in those patients, so that measurement of other early marker of glomular and tubular dysfunction is recommended.

Key words: β-thalassemia, creatinine, urea, creatinine clearance, ferritin.
Hypoglycemic and lipid lowering effects of Clove (Syzygium aromaticum) (L) (F. Myrtaceae) in people with type II Diabetes mellitus

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Objectives: This study was aimed to determine if cloves have hypoglycemic and hypolipidemic effects in newly diagnosed type II diabetes mellitus (DM).

Subjects and methods: Sixteen people with type-II DM in Mosul population were given aqueous extract containing 2 g of clove/day for 30 days.

Results: Serum glucose decreased from 204 ± 17.6 to 164.3 ± 27.1 mg/dL, triglycerides decreased from 218.9 ± 19.8 mg/dL to 193.2 ± 12.5 mg/dL, serum total cholesterol decreased from 244.3 ± 22.5 mg/dL to 210.5 ± 17.1 mg/dL and LDL decreased from 161.5 ±21.3 mg/dL to 133.7 ± 17 mg/dL after 15 days. Serum HDL was decreased from 39.31 ± 3 mg/dL to 38.47 ± 2.5 mg/dL (no significant effect by the intake of cloves). Consumption of aqueous extract containing 2 g of cloves/day for 30 days decreased serum glucose, triglycerides, total and LDL cholesterol with no changes in HDL concentrations.

Conclusion: The study was concluding that clove extract administration may improve glycemic control in diabetic patients and may be administered as adjunctive to the primary therapy of such disorders.
The role of antioxidants in the management of hearing deficit in diabetic patients

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Objective: to evaluate the effect of antioxidant vitamins on hearing deficit in diabetic patients.

Material and methods: A total of sixty type 2 diabetic patients with positive pure tone audiogram (PTA) enrolled in the study, and divided into two groups: each group consists of thirty patients, group one on antioxidant therapy, and group two on placebo therapy, for 2 month duration. Thirty healthy individuals kept as a control. Fasting blood sugar (FBS), and malondialdehyde (MDA) were measured in all groups, MDA and PTA were repeated after therapies.

Results: The FBS and MDA are higher in diabetic patients, and beneficial effects of the administration of vitamins E and C combination on the oxidative stress and significant improvement with mean differences of -12.5±7.79 (dB), on the sensorineural hearing loss (SNHL) in diabetic patients was obtained.

Conclusion: The present study demonstrated that diabetic patients have exaggerated oxidative stress, and administration of vitamins E and C combination had beneficial effect on the oxidative stress, and on the SNHL in diabetic patients with mean differences of -12.5±7.79 (dB (P value = 0.001).
Anthropometric and hormonal study of breast cancer patients in Slemani city

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Objectives: The aims of the study were to evaluate the serum levels of Progesterone, Estradiol and Prolactin in women with breast cancer and to study the effect of anthropometric factors on breast cancer development.

Methods: The subject enrolled in the study were divided into (58) breast cancer women and (30) healthy women as controls in Slemani city.

Results: The data obtained showed: highly significant elevation of Prolactin in breast cancer women compared with control (P<0.005), while no significant difference in Progesterone and Estradiol. The percentage of breast cancer is higher in urban areas than rural area, in the age ≥45 years, in the body weight ≥70 kg, in non smokers than smokers, and in those who did not have a family history of breast cancer.

Key words: breast cancer, PRL, PRG, E2, anthropometrics.
Relationship of thyroid stimulating hormone with coronary artery disease in patients undergoing diagnostic coronary angiography

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Objective: 1. To determine whether the variation of thyroid stimulating hormone (TSH) within the reference range (RR) influences the presence and severity of coronary artery disease (CAD) in patients referred for coronary angiography. 2. To evaluate serum lipid profile across the level of TSH.

Patients and Methods: This cross-sectional study was carried out in Ibn-Sina Teaching Hospital and Mosul Oncology and Nuclear Center during the period from 1st of November 2011 to the 1st of March 2012. A sample of 150 patients referred to the unit of coronary angiography to evaluate their chest pain, (88) males and (62) females aged (30 - 78) years. Patients with history of thyroid diseases and those receiving medications that interfere with thyroid functions and serum lipid estimation were excluded. After obtaining patients consent, data of age, sex, coronary risk factors (hypertension, hyperlipidemia, diabetes mellitus (DM), smoking habit and obesity). Systolic (SBP) and diastolic (DBP) blood pressure and body mass index (BMI) were measured. Biochemical parameters included TSH, free thyroxine (FT4), fasting serum glucose (FSG) and serum lipid profile [total cholesterol (TC), low density lipoprotein -cholesterol (LDL-C), high density Lipoprotein -cholesterol (HDL-C), triglyceride (TG) and atherogenic index (AI)] were measured. The severity of CAD was scored as (0) for smooth normal coronary artery, score (1,2 and 3) for those with single, double, triple- coronary artery of ≥50% stenosis, respectively. Score (4) designated left main disease was applied on left main coronary artery of ≥ 50% stenosis.
Results: The mean serum TSH was significantly higher in women than men (p=0.005). There was no significant difference between mean serum TSH level across different score groups (p=0.7). High level of TSH was observed in the multi-vessel disease, (score 2, 3 and 4 p=0.03). It was found that serum TC, LDL-C and TG increased while HDL-C decreased with increased TSH level.

Conclusions: This study suggested that high level of TSH is associated with multi-vessel disease and slight elevation of TSH is also lead to changes in lipid profile that raise the risk of cardiovascular disorders.
Serum ferritin and uric acid as strong antioxidants in Patients with β-Thalassemia Major

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Objective: Beta-thalassemia major is an autosomal recessive disease causing severe hemolytic anemia, which begins about 2-6 months after birth. Iron overload, which arises from recurrent transfusion and ineffective erythropoiesis, can enhance oxidative stress in thalassemic patients. The aim of this study is to evaluate the serum uric acid and ferritin levels as antioxidant parameters of patients with β-thalassemia major.

Methods: A sample of 120 subjects aged 2-6 years old divided in to 3 groups, 40 patients with β-thalassemia major on transfusion only, and 40 patients on transfusion and Exjade , and 40 normal subjects as control group. Uric acid (UA), and serum ferritin were recorded in all subjects.

Results: Significant increases of UA, were observed in the patients groups, compared with the control group (P<0.001). Mean UA, in patients with TM on transfusion only was non-significantly lower than in patient with TM on transfusion and Exjade (P>0.05). There was also a direct correlation between UA, and serum ferritin (P< 0.0001). Significant increases in serum ferritin were observed in patients groups compared with control group (P< 0.0001) (Table no.1).

Conclusion: Serum UA and ferritin increased in the patients with β-thalassemia major. Compensatory increase of ferritin and UA, may be due to RBCs hemolysis and oxidative stress because UA,
and ferritin regarded as a potent anti-oxidants.

**Key Words:** β-thalassemia Major, Oxidative Stress, Antioxidants, Ferritin, Uric acid
Effect of alendronate on serum ghrelin level in osteoporotic post menopausal women

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Objective: This study was designed to evaluate the effect of the antiresosptive a bisphosphonate (BPs) drug "Alendronate tablet" on serum ghrelin level.

Patients and methods: Twenty three postmenopausal women with mean age ± SD: 64.3±8.3 years, diagnosed as osteoporotic patients by measuring the bone mineral density (BMD ) by Dual x-ray absorptiometry (DXA) and treated by Alendronate tablets (70 mg/once weekly) for three months from 1st November 2011 to 1st March 2012. The study was conducted in Ibn Sina Teaching Hospital in Mosul. Serum ghrelin hormone concentration was measured before and after treatment by Enzyme-Linked Immune Sorbent Assay (ELISA) kit.

Results: This study showed that three months treatment with alendronate drug led to a statistical significant (p < 0.05) increment (21.41%) in the basal serum level of ghrelin hormone and there was a significant inverse correlation between ghrelin and body mass index (BMI).

Conclusion: Alendronate treatment have lead to a statistical significant increase in the serum ghrelin level in osteoporoitic post-menopausal women.

Key word: Osteoporosis, post-menopause women, alendronate, ghrelin hormone
The histological changes of the rat liver after administration of imatinib mesylate: an experimental study

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Objectives: This study aims to determine the histological changes of the liver of rats after treatment with a low dose or a clinically relevant high dose of Imatinib mesylate for one month in comparison to control ones.

Methods: Rats were housed under controlled normal environmental laboratory conditions and animal facility. The first experiment includes 40-45 days aged rats who administered orally daily dose of 75 mg/Kg of imatinib mesylate for 30 days with age matched control who administered distilled water. The second experiment includes 40-45 days aged rats who treated with a daily dose of 200mg/Kg orally with age matched control who administered distilled water. Animals in each experiment were euthanized with ether 24 hours after the final dose was given at the end of treatment at laboratory of postgraduate studies of Department of Anatomy, Mosul College of Medicine. Liver of rats from each experimental group were obtained. The tissues were embedded in paraffin and stained with hematoxylin-eosin and periodic acid Schiff stain.

Results: This study revealed that the microscopic examination of the liver sections obtained from the control group showed a normal appearance of the liver cells. The histological examination of the liver tissues of groups receiving imatinib at doses of 75 mg/kg or 200mg/kg daily for 30 days showed different degrees of various histological changes of damage. Rats administered
with 75 mg/kg of imatinib resulted in moderate degree of several histological changes. The most striking feature is disruption in radial arrangement around central vein, sinusoidal dilatation, and hepatocytes with eosinophilic cytoplasm. The groups receiving imatinib at dose of 200 mg/kg revealed similar changes, however, these changes were more pronounced in comparison to those in low dose group. In addition, swelling of hepatocytes were also noticed.

**Conclusion:** Imatinib causes hepatotoxicity even in low dose group, however, it has a dose dependant effect but to some extent

**Keywords:** Imatinib mesylate, hepatotoxicity, rat.
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اللجنة الاجتماعية

م.د زينة سطام الجبوري (رئيسا)

م. د.محمد عبد الكريم يونس

م. دينا قيدار السمان

م. م. علي عبد الحكيم

م. م. دعاء خالد أحمد

م. م. سراء ضياء

ج. س. سديل عبد المنعم شنبل

اللجنة المالية

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م. م. سيف خالد يحيى

م. م. ميمونة قاسم يحيى

السيدة هناء حامد
اللجنة العلمية

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أ.م.د وفاء محمد علي
أ.م.د مي عطا الله
أ.م.د احلام احمد
أ.م.د نهاد عبد الوهاب
م.د ميسر محمد علي
د.صلاح محمد امين

اللجنة الإعلامية

السيد ثامر معيوف (رئيسا)
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م.م صفاء محمد زكي
السيد زياد طارق سالم
رئيس المؤتمر
أ.م.د. وفاء محمد علي الشيخ (وكيل عميد كلية الصيدلة)

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أ.م.د. احلام أحمد خير الله
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م.د. زينة عبد المنعم
م.د. حارث خالد الفراز
م.م. إسرا محمد جبر
م.م. لؤي احمد محمد
م.م. معزز موفق سلمان
د.ص. محمود عبد الحافظ
التواصل وتبادل الخبرات بين العاملين في المجال الصيدلاني، على الصعيدين المحلي والعالمي لتطوير أدائهم وتزويدهم بالمعلومات الحديثة في مجال عملهم أصبح الهدف من عقد هذا المؤتمر هو الوقوف على آخر المستجدات الحديثة في مجال الخدمات الصيدلية وخلق بيئة ملائمة للخبراء والمختصين من أجل ديمومة التواصل بين الجامعة والمجتمع لتقديم أفضل الخدمات الصحية.

وفي الختام لا يسعني إلا أن أتوجه بوافر الشكر والتقدير لكل من ساهم في انجاح هذا المؤتمر من خلال كل اللجان المشاركة فيه داعياً الله عز وجل أن يكلل جهود القائمين على هذا المؤتمر بمزيد من التوفيق والسداد... متميّناً للمشاركين الاستفادة القصوى من هذا اللقاء المميز.

والسلام عليكم ورحمة الله وبركاته...

أ.م.د. وفاء محمد علي الشيخ
عميد كلية الصيدلة وكالة
كلمة السيد عميد كلية الصيدلة المحترم

بسم الله الرحمن الرحيم

الحمد لله رب العالمين والصلاة والسلام على سيد الخلق سيدنا محمد وعلى آلله وصحبه أجمعين...

تعتبر كلية الصيدلة في جامعة الموصل واحدة من أهم كليات الصيدلة في العراق إذ يتخرج منها صيادلة واعدون يمارسون مهنة الصيدلة وبحث العلمي بكفاءة عالية يشهد لها الجميع في أماكن العمل سواء في وزارة الصحة أو في المجتمع مما يعكس رؤية الكلية التي تتطلع دوما لأن تكون منارة للعلم ومؤسسة تعليمية معتمدة ومركز للبحث العلمي والابتكار لتكون قادرة على تقديم خدمة مجتمعية تواكب التطور العالمي في تكنولوجيا صناعة الدواء والرعاية الصحية الأولية لما للدواء من أهمية وتأثير على صحة الإنسان وتحسين معيشته.

إن التقدم المتسارع في مختلف العلوم الصيدلانية و الطبية، يستدعي تكثيف تنظيم المؤتمرات والورش العلمية، لما لها من انعكاس واضح على مستوى الخدمات الصحية للمجتمع ونظراً للحاجة المستمرة إلى
2nd National Conference of Pharmacy
وزارة التعليم العالي والبحث العلمي

جامعة الموصل

كلية الصيدلة

المؤتمر الوطني الثاني للصيدلة

"التطور والإبداع في الصيدلة"

برعاية الاستاذ علي محمد الحسين الاديب وزير التعليم العالي والبحث العلمي

وبحضور الاستاذ الدكتور ابي سعيد الديوه جي رئيس جامعة الموصل

25 – 26 ذو الحجة / 1434
30 – 31 تشرين الأول / 2013

قاعة الحكمة / كلية طب نينوى / جامعة الموصل
بسم الله الرحمن الرحيم

"وإذا مرضت فهو يشفين"

(الشعراء – 80)