Republic of Iraq
Ministry of higher education
and scientific research
Al-Kitab University
College Of Pharmacy

Neonatal treatment in neonatal care unit

Graduation project

submitted to the council of the college of pharmacy, Al-Kitab university in the partial fulfillment of the requirements for the degree of B.Sc. in pharmacy

by

Marwah safauldeen sameen
Eman mohammed abdulwahab
Hajar nooraldin mohammed

Supervised by:
Dr. Warqaa Naseer Saadoun

2023 - 2024

Abstract

Background

Neonatal treatment in neonatal care units refers to the specialized medical care provided to newborn infants, particularly those born prematurely or with medical conditions requiring intensive care.

Methods

This study conducted at Pediatric hospital in Kirkuk city in the period from 16/11/2023 to 18/2/2024, 50 newborns admitted to the neonatal care unit after agree with ethical issues.

Results

The finding in this table indicated that in the study group the newborns age is (35.05±2.322) weeks, 44% for males and 56% for females, And the type of delivery 62% of newborns is C/S, 38% is NVD, And the Gestational age 52% is Term (>37 Week), and 48% is (Pre term <37 Week).

Conclusion

Neonatal treatment in neonatal care units encompasses a wide range of medical conditions, including preterm labor, respiratory distress syndrome, and neonatal jaundice. While significant progress has been made in improving neonatal survival rates and optimizing treatment strategies, ongoing research, interdisciplinary collaboration, and quality improvement initiatives are essential to address existing challenges and further enhance outcomes for newborns requiring neonatal care

Republic of Iraq
Ministry of Higher Education
and Scientific Research
UNIVERSITY OF AL-KITAB
COLLEGE OF PHARMACY

Phytochemical Investigation of *Eucalyptus Camaldulensis Dehnh.* (Family: Myrtaceae) cultivated in Iraq

By

Abdulsalam Aref Abdulrazaaq
Naji Flayyih Ahmed
zakaria Najim Abdullah
Omer Ali Ahmed

Supervised By

Dr. Abdulaziz Ali Khalif

جامعة الكتاب
كلية الصيدلة

Date: 7 / 4 / 2024

Abstract

Background: *Eucalyptus camaldulensis Dehnh*. (Also called commonly Murry River gum and red river gum) is one of the most widely distributed species of Eucalyptus trees and the original land of this species in Australia in addition to distribution in many other countries. In Iraq, *Eucalyptus camaldulensis Dehnh* is the main species distributed vastly in various regions of the country. *E.camaldulensis* with the active constituents rich in pharmacologically significant secondary metabolites with proven activities including anti-bacterial, anti-fungal, anti-viral, antioxidant, and others.

Objectives: phytochemical screening of Iraqi *Eucalyptus camaldulensis* was the main aim of this study.

Methods: Hot method using soxhlet apparatus and extraction with 80% ethanol and cold method by maceration with 80% ethanol

Results: The resulted extract had been undergone preliminary chemical tests suggested the presence of alkaloids, steroids, terpenoids, flavonoids, tannins, coumarins, anthraquinone, and cardiac glycosides.

Conclusion: The Iraqi *E. camaldulensis* plant is rich in various secondary metabolites present with diverse pharmacological activities.

Republic of Iraq
Ministry of Higher Education and Scientific Research
University of Al-Kitab College of pharmacy

PLANT EXTRACTS USED FOR CONTROLLING MENOPAUSAL

By

Sarah Ali Abd

Athraa flayeh mukhlef

Fatima Farhan Muhammad

Ola Mazhar Sabbar

Research submitted to the pharmacy college at Al-Kitab University, which is part of the requirements for obtaining a bachelor's degree in pharmacy college

Supervised By

Dr. Abdulaziz Ali Khalif

2024 A.D. **1445 A.H.**

Abstract

Phytoestrogen-rich plants show promise in alleviating menopausal symptoms due to their ability to mimic estrogen's functions in the body. The biological mechanisms of menopause are rooted in ovarian changes, with a significant decrease in follicles leading to hormonal imbalances. Estrogen levels drop while FSH and LH increase, causing a decline in progesterone and eventual amenorrhea. Menopause typically occurs around age 50, earlier in certain populations like Africans, influenced by factors such as nutrition and smoking. Symptoms include vasomotor phenomena like hot flashes, affected by various triggers like alcohol, spicy foods, and tight clothing.

Urogenital atrophy due to estrogen deficiency can lead to additional discomfort. Hormone therapy effectively treats symptoms but may increase risks of certain conditions like breast cancer. Complementary therapies, particularly phytoestrogen-rich plants, offer promise in alleviating menopausal symptoms and reducing risks of certain diseases. Studies on Asian women suggest a link between phytoestrogen consumption and reduced menopausal symptoms and risks of breast and endometrial cancers, as well as improved bone health. Phytoestrogens mimic estrogen's functions by binding to estrogen receptors, offering a natural approach to managing menopausal symptoms.

1. Introduction

Biological mechanisms associated with menopause originate from changes that occur in the structure and function of the ovaries. The number of follicles in women before menopause is ten times higher than that in women after menopause. There are almost no follicles in the ovaries of postmenopausal women. This indicates that the number of stored follicles is a determinant factor in menopausal transition period (1).

The onset of menopause is associated with a dramatic change in hormonal balance, a decrease in estrogen and increase in FSH and LH hormones, which ultimately reduces the level of progesterone and causes permanent amenorrhea (2). The average age of menopause is 50 years but in people of African origin, it occurs earlier. Nutrition and smoking also affect menopausal age (3). Acute menopausal syndrome includes vasomotor phenomena (hot flashes and night sweats) and psychosomatic symptoms, which are experienced differently in people with different psychological, social, and cultural characteristics (4).

Hot flashes are the most common symptom, which are experienced by women during menopause (5). Hot flashes are periodic flushing and sudden sweating disorder with chills, palpitations, anxiety, feeling of pressure in the head and chest, nausea, choking and lack of concentration which usually lasts from between a few seconds to a minute, and rarely lasts up to an hour (5, 6). Hot flashes may vary from

An overview of pharmaceutical process Quality control variables of Aspirin manufacturing processes in industry

Al-Kitab University – College of Pharmacy

Graduation Project paper

A Proposal Paper By:

Abdulla Khalid Hazim

Afnan Ghazi Kawther

Sohaib Sattar Ayyed

Supervised By

Dr. Zain Al-Abidin Ghanim

ABSTRACT

The interchangeability between a generic and the respective reference drug is based on the concept of therapeutic equivalence between them, usually provided by evidence of pharmaceutical equivalence, bioequivalence, Good Manufacturing Practices (GMP), and quality control.

This study aimed to evaluate the pharmaceutical equivalence between four brands of 500 mg aspirin tablets (two generic, G, and two similar, S) in relation to the reference drug (Aspirin® Gerot lannach, R). The following tests were performed: friability; disintegration time; hardness; and thickness.

The similar drug 2 (S2) is out of specifications in the tests of limit of free salicylic acid, friability and assay. The drug S1 was not approved in the limit test. Moreover, the results from the dissolution profile (graphic and f2 factor) showed that the four test drugs were not pharmaceutically equivalent to the R.

Keywords: Pharmaceutical equivalence, Quality control, friability, hardness, and disintegration.

Ministry of Higher Education and Scientific Research Al-Kitab University – College of Pharmacy

2023-2024

A comparative experience between the brand Mebeverine and Iraqi companies

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Graduation Project paper

A Proposal Paper Submitted By:

Ahmed Abd Al Ameer Muhsin Mohammed Thamer Khalif

Shaimaa Nabil fatih

Supervised By

Dr. Zein Al-Abidin Ghanem

Al-Kitab University

College of Pharmacy

Abstract

Background: Treatment options for colon disease and their prescriptions have increased over the years. This requires appropriate selection of medications. The main goal of this study was to highlight the difference in effectiveness between the same therapeutic materials from different companies. In this study, we devoted ourselves to comparing colon treatment with the same treatments from different Iraqi companies and comparing the effectiveness.

Methods: We conducted five tests in university laboratories on the same colon treatment for five companies. Different, write down the results and compare them.

Objective: To analyze the medications used to treat the colon and find out the differences in effectiveness, speed of action, price, and other differences between the different companies. In this research, we used four Iraqi companies and one foreign company, which represent the brand treatment.

Results: We obtained good results after conducting the tests, as there are some medicines with a low price compared to others that gave a good effect in terms of the speed of disintegration and other aspects of the tests.

Conclusion: Expenses for colon treatment can be reduced for colon patients, as the brand Abbot colon treatment can be replaced with colon treatment from Pioneer, where the difference in effectiveness is small and for whom the difference in price is large."

Republic of Iraq
Ministry of Higher Education and Scientific Research
University of Al-Kitab College of pharmacy

HYPOTHYROIDISM AND VITAMIN D DEFICIENCY

By

Ahmed Sobhi Mahmoud

Ahmed Hussein Ali

Omar Al-Khattab Hamed Jassim

Research submitted to the pharmacy college at Al-Kitab University, which is part of the requirements for obtaining a bachelor's degree in pharmacy college

Supervised By

Dr.Thulfiqar Abdullah Mohammad

2024 A.D. **1445 A.H.**

Different Between Gaviscon And Rennie

PROPOSAL OF PROJECT GRADUATION IN PHARMACY COLLEGE AL-KITAB UNIVERSITY (IN PARTIAL FULFILLMENT FOR THE DEGREE OF BACHELOR OF PHARMACY)

Pharmacy College

AL-Kitab University

Name of the student: Noor Farhan Abdullah

SUPERVISOR: Rozhgar faysal ahmed

Different Between Gaviscon And Rennie

PROPOSAL OF PROJECT GRADUATION IN PHARMACY COLLEGE AL-KITAB UNIVERSITY (IN PARTIAL FULFILLMENT FOR THE DEGREE OF BACHELOR OF PHARMACY)

Pharmacy College

AL-Kitab University

Name of the student: Noor Farhan Abdullah

SUPERVISOR: Rozhgar faysal ahmed

Ministry of Higher Education

and Scientific Research

Al-Kitab University

College of Pharmacy

conocarpus lancifolius

A research submitted to the Board of Directors of Al-Kitab University / College of Pharmacy to obtain a bachelor's degree by the student;

Akram Nejat Akram

Mohammed Ahmed Oleiwi

Supervised by

Asst. Asst. Abdulaziz Ali Khalif

2024 1445 H

Abstract

Conocarpus erectus is an evergreen shrub found on the shorelines in tropical and subtropical regions of the world, throughout the America, tropical Africa, and West Indies. The main objective of this review was to highlight the relevant documented knowledge published about its botanical aspects, phytochemistry, traditional uses as well as therapeutic potential of Conocarpus erectus. This plant was selected due to its great medicinal importance like its leaves and fruits have been using traditionally as antipyretic, anti diabetic, anti malarial and for the treatment of conjunctivitis, syphilis, gonorrhea, orchitis, diarrhea, anemia, prickly heat and swellings etc. The plant has also reported to have pharmacological active phytochemicals i.e. conocarpan, conocarpol, gallic acid, ellagic acid, ellagitannin, castalagin, quercetin, myricetin and syringetin etc. The review expresses the ethanomedicinal potential of this plant specie as well as its importance in modern medicines.

Republic Of Iraq

Ministry Of higher education and Scientific research

Al-Kitab University

College of Pharmacy

HAIR LOSS DISORDER (ALOPECIA)

BY:

MOHAMMED ARSALAN MOHAMMED

SUPERVISED BY:

DR. ROZHGAR FAISAL AHMMED

1445

2024

Abstract:

Background

Hair loss disorder (alopecia) is a medical condition of different etiologies in which case people lose some or all hairs on scalp and sometime on whole body. Minoxidil has been shown to induce a positive clinical response, either used alone or combined with other medications such as caffeine ,and also shown evidence to exhibit an antifibrotic action. Therefore, topical minoxidil treatment can be a therapeutic choice in the early course of dermatoses leading to scarring alopecia.

Method

The cross sectional study was done to review on the use of minoxidil and combination of minoxidil and caffeine in hair loss disorder in Iraq. Pharmacist working in private pharmacy and those are engaged with academic and hospital works were included in this study.

Result

In total 100 pharmacists responded to sectional study(8 questionnaires sent), a large percentage of respondents were minoxidil as prescribed medication 61% by the pharmacist in there basic rule , although those prescribe combination of minoxidil and caffeine is 39% because of having more effect on hair loss. The drug of choice in male androgenic alopecia (minoxidil 40%, minoxidil and caffeine 10%, finasteride 50%), while the drug of choice in female androgenic alopecia (Minoxidil %40 , Minoxidil and caffeine 39% , finasteride 31%).

Conclusion

It concluded through a research and a questionnaire regarding the use of minoxidil and caffeine. Minoxidil is the one that is used the most And combinations of Minoxidil and caffeine are also helpful on account of

Republic of Iraq
Ministry of Higher Education And Scientific Research
Al Kitab University / College of Pharmacy

The Relationship Between Obesity and GERD

A Research project Submitted to

A Research project
Submitted to the department Al Kitab University College/
Department College of Pharmacy as partial fulfillment of the
Requirement for the degree of bachelor in College of Pharmacy

SUBMITTED BY

Aisha Badawi Younes

Mina Yarab Siddiq

Hossam Hussein Ibrahim

Supervised By

Dr. Rizgar Faisal Ahmed

2024 A.D **1444 A.H**

Abstract

This study will utilize a cross-sectional design to investigate the relationship between obesity and gastroesophageal reflux disease (GERD). The study will involve recruiting participants from a primary care clinic who will be assessed for their body mass index (BMI) and presence of GERD symptoms.

Participants will be asked to complete a questionnaire to assess their symptoms of GERD, such as heartburn, regurgitation, and difficulty swallowing. Their BMI will be calculated based on their height and weight measurements taken by a trained research assistant.

Statistical analysis will be conducted to determine if there is a significant relationship between obesity and GERD. This analysis will involve calculating the correlation coefficient between BMI and GERD symptoms, as well as conducting logistic regression analysis to determine the odds of having GERD based on BMI category.

Ethical considerations will be taken into account throughout the study, including obtaining informed consent from participants, ensuring confidentiality of data, and providing appropriate care and support for individuals with GERD symptoms.

This study aims to provide valuable insights into the relationship between obesity and GERD, which could inform future prevention and treatment strategies for individuals at risk of developing GERD.

(The Role and Efficacy of Dexamethasone Course in Prenatal Period to Decrease the Respiratory Distress Syndrome in Newborns)

Written by

Sima Hashim Faqe

Zahra Tarq Ibrahim

Fatima Alzahra Kamaran

Supervisor

Dr.aram sardar Ibrahim

Msc.Bsc.ARPharmaS

College of pharmacy

Department of clinical pharmacy

May 2024

Abstract

Background: Preterm premature rupture of membranes is an obstetric obstacle

which has short and long-term consequences on neonatal outcome and will cause major neonatal morbidity and mortality.

Methods: This is a retrospective construction study conducted in Erbil Maternity Teaching Hospital using a sample size of (70) of patient .

Result: our study showed that in 70 cases 34 of patients received dexamethasone and 36 of them has not taken dexamethasone.it has efficacy on both patients taken dexamethasone before c-section.

Conclusion: Current study shows that dexamethasone had good effect to reduction of respiratory morbidity, admission to neonatal intensive care unit and mean days of admission.

Methods: retrospective study was conducted, at Maternity Teaching Hospital on 70 women divided into two groups.

First group (women) received Dexamethasone and the second group (women) not received dexamethasone.

Short term neonatal outcomes (respiratory morbidity and admission to

neonatal intensive care units).

Key words: respiratory distress syndrome, Dexamethasone,preterm.

IRAQ MINSTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

AL KITAB UNIVERSITY

FACULTY OF PHARMACY

Synthesis and Characterization of Mg-Zn Nanoferrites Flavonoids Fabricated: An Advanced Multifunction Hybrid Nanocomposite for Biomedical Application

A PROJECT

SUBMITTED TO COUNCIL OF THE FACULTY OF THE PHARMACY, AL KITAB UNIVERSITY IN IN PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE OF BACHELOR OF PHARMACY

SUBMITTED BY :

RAYAN ALI MUHAMAD

JAMAL FAISAL ZEINDEEN

SUPERVISED BY :

OSC.MSC.DR.ARAM SARDAR

Abstract

Nanosized mixed ferrites Zni-*Mg,Fe204 (0 < * <1) was successfully synthesized by wet ferritization route. The as-prepared spinel nanoparticles were pre-treated with freshly extracted flavonoids (Flv) from agri-waste of Punica Granatum L. and Allium cepa L. The surface morphology, magnetic behavior and elemental compositions were characterized usingXRD, FTIR, VSM. DTA-TGA, FE-SEM, EDX, TEM and BET. X-ray diffractograms proposed that the as-synthesized Zni-*MgFez04 (MZFO) nanoparticles have a single-phase cubic spinel structure. The morphological results confirm MZFO NPs fall into two categories of morphology: flower-shaped and plate-shaped particles and EDX spectra of MZFO and fabricated Flv/MZFO indicates the existence of Zn, Mg, Fe, O and C elements. Meanwhile, the TEM analysis of the modified MZFO corroborates that each particle is a single crystal, which is a significant finding with the average particle size of 22m. Further, the modified MZFO NPs showed a weight loss of 39.17% associated to the surface modification. In addition, remarkable superparamagnetic behavior recorded for the modified MZFO with the saturation magnetization Ms up to 41.8750emu g'. Set results revealed that the as- synthesized Flv/ MZFO is mesoporous nanosized materials with a total pore volume, average pore size, and specific surface area found to be 0.1349cm/g, 17.044m, and 31.655m/g, respectively.

Significant antibacterial efficacy (7 and 8mm inhabitation zone) of conjugated Flv/ MZFO nanoferrites was noticed against Gram-negative and Gram-positive bacteria, respectively. The minimum inhibitory concentration (MIC) of modified Flv/ MZFO nanoferrites against E-coli and S. aureus were found to be 0.312 and 0.156 mg/ml, respectively. The obtained results from this work highlighted that the fabricated Flv/MZFO are low-cost, safe, challenges and prospective nanosized material in the biomedical field for the development of novel antibacterial agent and materials. Also, could be promising candidate nanocarriers for magnetically targeting drug delivery in future.

keywords; nanospinal ferrites, magnetic properties, antimicrobial activity, wet chemical method, biocomp

THE GASTRO-PROTECTIVE EFFECT OF AZILSARTAN IN ETHANOL-INDUCED GASTRIC ULCER

THIS REVIEW ARTICLE SUBMITTED TO THE (DEPARTMENT OF PHARMACOLOGY & TOXICOLOGY/COLLEGE OF PHARMACY/ UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF B.sc. OF PHARMACY

Prepared by

MOHAMMED EMAD QADIR

MOHAMMED AHMED IBRAHIM

Supervised by

Assit. Professor .Dr. ARAM SARDAR

College of pharmacy

ABSTRACT

Azilsartan is an angiotensin II receptor blocker that is commonly used to treat hypertension. Recent studies have suggested that azilsartan may also have potential therapeutic effects in cases of ethanol-induced gastric ulcer. Ethanol is known to damage the gastric mucosal barrier, leading to ulcers and inflammation. The exact mechanisms of ethanol-induced gastric damage are not fully understood, but it is thought to involve oxidative stress, inflammation, and disruption of the normal balance of protective factors in the stomach.In preclinical studies, azilsartan has been shown to reduce the severity of ethanol-induced gastric ulcers in animal models. One study found that azilsartan significantly reduced ulcer index and lipid peroxidation in rats with ethanol-induced gastric ulcers. Another study demonstrated that azilsartan reduced oxidative stress and inflammation in ethanol-induced gastric ulcer in mice, possibly through its antioxidant and anti-inflammatory properties. These findings suggest that azilsartan may have potential as a gastroprotective agent in cases of ethanol-induced gastric ulcer. The exact mechanisms underlying the gastroprotective effects of azilsartan in ethanol-induced gastric ulcer are not fully understood. However, it has been suggested that azilsartan may reduce oxidative stress and inflammation in the stomach, thereby reducing the severity of gastric ulceration. Azilsartan has been shown to have antioxidant and anti-inflammatory properties in vitro, and it is possible that these properties may contribute to its gastroprotective effects in vivo. In addition, azilsartan has been shown to increase the expression of heat shock proteins, which are known to have protective effects against various types of stress, including oxidative stress.

Al-kitab University
Department of pharmacy
Graduation project

Project title : Assessment of Mental health
And related services in Iraq

Participants : Ranj Abdulsalam Adil
Sara Nuaman Faiq

Supervisor : Dr.Aram Sardar Ibrahim
(Bsc.Msc.ARPharmS)

Academic year 2023-2024

Abstract

Just as we prioritize physical health through exercise and nutrition, tending to our mental health is crucial for leading fulfilling lives. Neglecting mental well-being can lead to a range of challenges, including mood disorders, anxiety, and difficulties in interpersonal relationships. These issues not only affect individuals personally but also ripple through their professional and social spheres.

Recognizing the significance of mental health encourages a holistic approach to healthcare, one that considers both physical and psychological needs. By investing in practices like therapy, mindfulness, and self-care, individuals can strengthen their resilience and develop healthier coping mechanisms. This proactive approach not only enhances individual well-being but also contributes to building more supportive and empathetic communities. Prioritizing mental health is essential for fostering a society where everyone can thrive emotionally, mentally, and physically.

AL-KITAB UNIVERSITY

COLLEGE OF PHARMACY

Comparative in-vitro quality evaluation of some brands of paracetamol tablet available in Iraqi market

By :

Solin Nawzad Ibrahim

Malath Abd Alrazak

Nabaa Amer Rajab

Graduation Project / Submitted to the College Pharmacy / University of Al-kitab in partial Fulfillment of the Requirements for Degree of Bachelor of science in pharmacy.

2023-2024

Main supervisor: Dr. Ibrahim M. Abdulbaqi

Co-supervisor: Lecturer Assistant Zain al-Abden Ghanim

Abstract

The quality of pharmaceutical products is very significant. Because pharmaceuticals must be promoted as safe, therapeutically effective formulations with reliable and consistent performance, product quality is crucial. A pharmaceutical product's purity, bioavailability, and optimal therapeutic action can all be guaranteed via an evaluation of its physical attributes. This study aimed to assess whether all brands adhere to USP guidelines and to compare the quality of various brands' paracetamol tablets. There are many different brands and different types of dosage forms of paracetamol under various trade names, manufactured by different pharmaceutical companies, available in the market. For this current research work, six brands (PARACETOL, PARACETAMOL-MDI, PARACTOL-D, PIODOL, ParAzar, and BRISTOL) of paracetamol tablets (500mg) commercially available in Iraq were collected, and evaluation studies were conducted, which included uniformity of weight, uniformity of diameter and thickness, friability test, hardness test, and disintegration test, performed as per the method described in the United States Pharmacopoeia (USP). All brands were found to comply with USP specifications. According to this analysis, minimum weight variation was found in ParAzar brand; Piodol showed the highest hardness (15.033 kg); the lowest friability was for BRISTOL (0.16%); and the highest friability loss was for PARACTOL-D Company (1%); all brands showed satisfactory disintegration time. For better therapeutic outcomes, quality control tests should be maintained strictly.

Keywords: paracetamol, USP, in vitro comparative study, quality control test, bioavailability

AL-KITAB UNIVERSITY

COLLEGE OF PHARMACY

comparative quality control study among different Iraqi brands of metronidazole

By:

Noor H. Mohammed

Sabreen H. Ibrahim

Ayat A. Saeed

Graduation Project / Submitted to the College of Pharmacy / University of Al-kitab in partial Fulfillment of the Requirements for Degree of Bachelor of science in pharmacy.

2023-2024

supervised by: Dr. Ibrahim M. Abdulbaqi

Abstract

Objective: This study's objective was to evaluate the caliber of a few chosen metronidazole products found in Iraqi community pharmacies.

Quality control tests are important to ensure tablets meet standards for safety, efficacy and patient acceptability. Key tests include weight variation, hardness, friability, disintegration, diameter & thickness.

Healthcare services in underdeveloped nations, like Iraq, are facing significant challenges due to the importation of drugs from subpar manufacturers and the smuggling of counterfeit medicines. As a consequence, in order to confirm quality and ascertain which product may securely replace the innovator product in the event that the innovator brand one is unavailable or too expensive, ongoing post-marketing quality testing is required. Several pharmaceutical businesses offer metronidazole tablets for sale in the Iraqi market. Since metronidazole is the most often given antiprotozoal medication in Iraq and many other nations worldwide, it was selected for this comparison analysis. To determine the pharmaceutical equivalency of the different generic brands of Metronidazole film-coated tablets (500 mg) marketed, a number of quality control tests have been carried out in this study.

Metronidazole is a commonly used antibiotic, belonging to the nitroimidazole class of antibiotics. It is frequently used to treat gastrointestinal infections as well as trichomoniasis and giardiasis, and amebiasis which are parasitic infections. Metronidazole has been used as an antibiotic for several decades, with added anti-parasitic properties that set it apart from many other antibacterial drugs, allowing it to treat a wide variety of infections. It is available in capsule form, tablet form, and topical form, and suppository preparations for the treatment of various infections.

Based on the experiment we have conducted, it turns out that "Metazol-awa" had the faster disintegration time, while "Medagyl" had the greatest hardness. Generally speaking, it appears that Iraqi brands have a good quality and we can use them as alternatives to other brands.

Republic of Iraq
Ministry of Higher Education and
Scientific Research
Al-Kitab university
College of Pharmacy

Nanoparticles Preparation Methods, Characterization, and Application

A Graduation Project Submitted To The College Of Pharmacy, Al-Kitab University In Partial Fulfillment Of The Requirements For The Degree Of Bachelor's In Pharmacy

Submitted by:
Samer Mohammed Ahmed
Wissam Younis Khalaf

Under Supervision of:
Associate.Prof.Yasser. Abdel Aleem

A. Abstract:

Nanoparticles in Pharmaceutics

- Revolutionizing Drug Delivery:

Nanoparticles, particles with dimensions in the nanometer range (billionths of a meter), are revolutionizing the pharmaceutical industry. Their unique properties offer immense potential for drug delivery, promising enhanced efficacy, reduced side effects, and targeted therapies. This project delves into the world of nanoparticles, exploring their preparation methods, characterization techniques, and groundbreaking applications.

Preparation Methods: Various techniques exist for crafting nanoparticles, each with its strengths. Nanoprecipitation offers a simple and versatile approach, involving the precipitation of a drug solution in a non-solvent. Emulsification-solvent evaporation allows for good control over particle size by emulsifying a drug solution in water and then evaporating the solvent. Supercritical fluid technology provides a sterile and environmentally friendly method by utilizing a supercritical fluid to dissolve the drug, followed by rapid expansion to form nanoparticles.

Characterization Techniques: Once prepared, nanoparticles undergo rigorous characterization to ensure their quality and suitability for drug delivery. Particle size and distribution, determined by techniques like dynamic light scattering, are crucial for efficient drug delivery. Surface charge, measured by zeta potential, influences nanoparticle stability and interaction with biological systems. Electron microscopy (SEM and TEM) provides high-resolution images of nanoparticle morphology, revealing their shape and surface features.

Applications in Pharmaceuticals: Nanoparticles offer a plethora of applications, transforming the landscape of drug delivery. They can significantly improve the solubility of poorly soluble drugs, enhancing their bioavailability and therapeutic potential. Controlled drug release can be achieved by designing nanoparticles to release their cargo over a sustained period, reducing dosing frequency and improving patient compliance. Targeted drug delivery represents a paradigm shift. By functionalizing nanoparticles to target specific cells or tissues, researchers aim to minimize side effects and maximize therapeutic efficacy.

Future Prospects: The future of nanoparticles in pharmaceuticals is brimming with exciting possibilities. Advanced nanocarriers with improved targeting capabilities and controlled release profiles are under development. Combination therapies utilizing nanoparticles hold promise for delivering combinations of drugs to

Republic of Iraq
Ministry of higher education
and scientific research
Al-Kitab University
College Of Pharmacy

Nanomedicine innovation for fighting of liver virus

Graduation Project Submitted to the College of Pharmacy Al- Kitab University in Partial Fulfillment of the Requirements for the Degree of Bachelor in Pharmacy

Submitted by

Ahmed Abd AlMoneim Saleh

Rania Haqi ismael

Eman Haydar Ghadhban

Under Supervised of
Associate prof/ Yasser Abdul Aleem

2024

Abstract

The continuous evolution of new viruses poses a danger to world health. Rampant outbreaks may advance to pandemic level, often straining financial and medical resources to breaking point. While vaccination remains the gold standard to prevent viral illnesses, these are mostly prophylactic and offer minimal assistance to those who have already developed viral illnesses. Moreover, the timeline to vaccine development and testing can be extensive, leading to a lapse in controlling the spread of viral infection during pandemics. Antiviral therapeutics can provide a temporary fix to tide over the time lag when vaccines are not available during the commencement of a disease outburst. At times, these medications can have negative side effects that outweigh the benefits, and they are not always effective against newly emerging virus strains. Several limitations with conventional antiviral therapies may be addressed by nanotechnology. By using nano delivery vehicles, for instance, the pharmacokinetic profile of antiviral medications can be significantly improved while decreasing systemic toxicity. The virucidal or virus-neutralizing qualities of other special nanomaterials can be exploited. This review focuses on the recent advancements in nanomedicine against RNA viruses, including nano-vaccines and nano-herbal therapeutics.

Republic of Iraq
Ministry of Higher Education
and Scientific Research
UNIVERSITY OF AL-KITAB
COLLEGE OF PHARMACY

Comparison the effects of Lisinopril versus Telmisartan on Renal Function Parameters in Diabetic type2 Hypertensive Patients.

Research submitted to the pharmacy college at Al-Kitab University, which is part of the requirements for obtaining a bachelor's degree in pharmacy college

by

Ahmed Mohammed Abdullah

Rasool Khalid Mohammed

Anowar Suhad Waad

Supervised by:

Dr. OSAMAH ABDULLAH HASAN

Date: 4 / 5 / 2024

Abstract

Hypertension is one of the most important comorbidities of diabetes, contributing significantly to death and disability and leads to macrovascular and microvascular complications. When assessing the medical priorities for patients with diabetes, treating hypertension should be a primary consideration.

Renal function is directly affected by both diseases and diabetic nephropathy is one of the most important and common complication in diabetic hypertensive patients.

Angiotensin converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs) are the most effective drugs for treating hypertension in diabetes, in the absence of contraindications and they are superior to other medications such as calcium antagonists or diuretics which are acceptable as second-line agents.

Once the target is achieved, antihypertensive drugs should be continued. There are some dispersed works that involved telmisartan and much less researches on lisinopril. However, there is lack in these studies to involve comparative effects of both drugs.

Therefore, this study aimed to compare the reno-protective effect of most common agents in ACEIs and ARBs, lisinopril and telmisartan.

Republic of Iraq
Ministry of higher education
and scientific research
Al-Kitab University
College Of Pharmacy

Spray drying technique for powder inhalation

Graduation Project Submitted to the College of Pharmacy Al- Kitab University in Partial Fulfillment of the Requirements for the Degree of Bachelor in Pharmacy

Submitted by:
Ahmed Fouad Aljboury
Omar maan jasim

Under Supervised of
Associate prof/ Yasser Abdel Aleem

2024

Abstract

Spray drying is a constructive single-step manufacturing technique used to produce dry powder. Spray drying plays a remarkable role in producing inhalable powder formulations due to its ability to engineer particles with optimized characteristics for inhalation. However, the complexity of drying kinetics and particle formation process coupled with the specificity of the targeted physicochemical characteristics of inhalable particles makes it a very interesting area of research. This review will discuss various aspects of spray drying such as configurations and functions, drying kinetics, component distribution and particle solidification. Furthermore, the review will focus on the functionality and behavior of excipients during drying. Finally, characterization techniques used to investigate components distribution within dried particles will be highlighted with research thrust in this area.

Introduction

Dry powder inhalers (DPIs) have gained a great attention in recent decades due to their advantages over other inhalation devices such as nebulizers, metered dose inhalers (MDIs) and soft mist inhalers (SMIs) for several reasons. For instance, unlike nebulizers, MDIs and SMIs, DPIs contain the API in the solid state which displays higher physical stability storage [1]. In addition, DPIs have the advantages of being portable, propellant-free, with low risk of hand mouth miscoordination [2]. The vast majority of commercialized DPIs depend on the use of a physical mixture of a coarse carrier (most commonly lactose monohydrate sized 50–100 μm) with small inhalable drug particles (1–5 μm) in order to overcome the strong cohesive and adhesive properties of the drug and improve metering [3]. However, the carrier/API mixture system must achieve optimum adhesive force for the API particles to be successfully delivered to the deep lung. On one hand, the interaction forces between the carrier and the API need to be strong enough to hold particles together during the manufacturing process and storage. On the other hand, they also need to be weak enough to free the API particles upon aerosolization [4]. Unfortunately, it is difficult to achieve the desired adhesive force due to the complexity of the interparticle forces which depends on several intrinsic and extrinsic factors. Thus, it has become commonly acceptable to achieve a deep lung

Al-Kitab University

College of Pharmacy

The impact of isotretinoin on patients in cities across Iraq

Submitted in partial fulfillment of a bachelor of science in pharmacy

Prepared by:

Bahra Abdulrahman Aziz

Narin Yasin Sabir

Eman Salah

Supervised by:

Dr. Aram Sardar Ibrahim

Bsc. Msc. ARPharmS

2023-2024

Abstract

Isotretinoin is a widely used medication among young patients for the management of acne. It has multiple health implications among young patients. This was a retrospective cross-sectional study conducted among 135 number of patients across the northern region of Iraq.

Isotretinoin (13-cis-retinoic acid) is, a retinoid derivative of vitamin A. In 1982, the Food and Drug Administration (FDA) of the United States of America approved it to treat severe recalcitrant acne vulgaris.

We collected data using google forms, because this is easy accessible by patients and allows us to collect data from difference cities in Iraq, and this data was collected online and recorded on an excel file. We created and organized and took information of questions by help of journey website and also some questions we prepared by our decision and information.

Most participants are female, their ages was between 21-30 years old, and most of them didn't use any other acne medication previously, In this data the patients didn't use any contraceptive methods, the patients that they had been warned about side effects of isotretinoin are 25 patients, 43 patients know by their self, 67 patients didn't know about side effects of isotretinoin.

We chose to study about isotretinoin because it was a rare object in Iraq to tell everyone that isotretinoin is the medicine should be used under caution despite its usefulness.

The pharmacists should be careful when they give isotretinoin, they shouldn't give without prescription and they should tell them the side effects about the medication and the way of administering, in Iraq according to our studying most patients don't use isotretinoin under doctors consultant this phenomenon should be regulated and not let the pharmacist to give isotretinoin by their self.

Republic of Iraq

Ministry of higher education

and scientific research

Al-Kitab University

College Of Pharmacy

Toxicity of metallic NPS

Graduation Project Submitted to the College of Pharmacy
Al-Kitab University in Partial Fulfillment of the
Requirements for the Degree of Bachelor in Pharmacy

Submitted by:
Othman Attia Hussein
Abdul Qader Ibrahim Muhammad
Hassan Maher Aousif

Under Supervised of
Associate prof/ Yasser Abdel Aleem

2024

Abstract:

Metal nanoparticles have been extensively investigated for different types of pharmaceu- tical applications. However, their use has raised some concerns about their toxicity involving the increase of reactive oxygen species causing cellular apoptosis. Therefore, in this review we summa- rize the most relevant toxicity mechanisms of gold, silver, copper and copper oxide nanoparticles as well as production methods of metal nanoparticles. Parameters involved in their toxicity such as size, surface charge and concentration are also highlighted. Moreover, a critical revision of the literature about the strategies used to reduce the toxicity of this type of nanoparticles is carried out throughout the review. Additionally, surface modifications using different coating strategies, nanoparticles targeting and morphology modifications are deeply explained. Recent advances in the synthesis and development of nanoparticles (NPs) for wide applications has lead to a serious threat to both human and environmental health. NPs are highly reactive and catalytic in nature compared to their ions or bulk counterparts and thus applicable in various fields including drug delivery, electronics, optics, and therapeutics. Metal nanoparticles have been extensively investigated for different types of pharmaceu- tical applications. However, their use has raised some concerns about their toxicity involving the increase of reactive oxygen species causing cellular apoptosis. -‘.

Metallic nanoparticles are considered the most potent agents in the modern world because they are used in every field of life, including the biotechnology, medical, textile, and food industries. Owing to their increased application, humans are constantly exposed to these nanoparticles. Their physiochemical characteristics, as their large surface to volume ratio might enhance their toxicity, increased surface area of NPs exhibit increased biological activity i.e reactive oxygen species generation when compared to large particles of the same mass. Consequently, their biosafety is a matter of major concern

Republic of Iraq
Ministry of Higher
Education
and Scientific Research
Al-Kitab University
Pharmacy college

Different methods for enhancing the bioavailability

Research submitted to the pharmacy college at Al-Kitab University, which is part of the requirements for obtaining a bachelor's degree in pharmacy college

Submitted By:

- Enji Adil Mohammed
- Afnan Mueyyed Nuraldin
- Sabaa Thanoon Hamid

Under Supervised of

Associate Prof / Yasser Abdel Aleem

2023/2024

Abstract

A drug's aqueous solubility is defined as the ability to dissolve in a particular solvent, and it is currently a major hurdle in bringing new drug molecules to the market. According to some estimates, up to 40% of commercialized products and 70–90% of drug candidates in the development stage are poorly soluble, which results in low bioavailability, diminished therapeutic effects, and dosage escalation. Because of this, solubility must be taken into consideration when developing and fabricating pharmaceutical products. To date, several approaches have been investigated to address the problem of poor solubility. This review article attempts to summarize several conventional methods utilized to increase the solubility of poorly soluble drugs. These methods include the principles of physical and chemical approaches such as particle size reduction, solid dispersion, supercritical fluid technology, cryogenic technology, inclusion of complex formation techniques, and floating granules. It includes structural modification (i.e., prodrug, salt formation, co-crystallization, use of co-solvents, hydrography, polymorphs, amorphous solid dispersions, and pH variation). Various nanotechnological approaches such as liposomes, nanoparticles, dendrimers, micelles, metal-organic frameworks, nanogels, nanoemulsions, nanosuspension, carbon nanotubes, and so forth have also been widely investigated for solubility enhancement. All these approaches have brought forward the enhancement of the bioavailability of orally administered drugs by improving the solubility of poorly water-soluble drugs. However, the solubility issues have not been completely resolved, owing to several challenges associated with current approaches, such as reproducibility in large-scale production. Considering that there is no universal approach to solving solubility issues, more research is needed to simplify the existing technologies, which could increase the number of commercially available products employing these techniques.

Republic of Iraq
Ministry of higher education
and scientific research
Al-Kitab University
College Of Pharmacy

Influenza Vaccine

Graduation Project Submitted to the College of Pharmacy Al- Kitab University in Partial Fulfillment of the Requirements for the Degree of Bachelor in Pharmacy

Submitted by:
Ahmed Mohammed Ali Sabri
Noor Najdet Mohammed Ali
Ayshan Ayfer Adnan

Supervised by:
Dr. Oral bakir

2024

ABSTRACT

Background:

Influenza (flu) vaccines (often called "flu shots") are vaccines that protect against the four influenza viruses that research indicates will be most common during the upcoming season. Most flu vaccines are "flu shots" given with a needle, usually in the arm, but there also is a nasal spray flu vaccine.

Materials and methods:

This is an experimental study conducted 83 patients received vaccine after flu at internist medicine private clinic in the period from 16/11/2023 to 18/2/2024, after agree with ethical issues.

Results:

The finding in this table indicated that in the study group the patients age is (28.63, ±7.843) years, 42.2% for males and 57.8% for females, **Job:** Doctor (8.4%), Lab staff (28.9%), Nurse (18.1%), Pharmacist (44.6%), **Other disease conditions:** Non (79.5%), Hypertension (9.6%), Diabetic (4.8%), Thyroid (3.6%), Thalassemia (1.2%).

Conclusion:

Our study investigated the comparative analysis of flu vaccine symptomatology before and after the COVID-19 pandemic reveals a significant increase in reported symptoms in the post-pandemic era. This surge in symptom reporting can be attributed to a myriad of factors, including heightened public health consciousness, psychological stressors, vaccine hesitancy, and complex immune interactions with COVID-19 infection or vaccination.

Republic of Iraq
Ministry of Higher Education and Scientific Research

Kitab University

College of Pharmacy
Department of Pharmacology and Toxicology

Effectiveness of some antibiotics against pseudomonas aeruginosa infection in burn patients

A graduation project
Submitted to College of
Pharmacy as a partial fulfillment of the requirement for the degree of
Bachelor of Science in Pharmacy

By:
Mohammed sajed obeed

Ahmed sarkawt rahamatalla

Mohammed omer ahmed

Hogr Abdulrahman habib

Supervised by:
Dr.Oral Mohammed Bakr

1445

2024

The Republic of Iraq

Ministry of Higher Education and Scientific Research

AL-Kitab University

College of Pharmacy

Relationship between Asthma Immunoglobulin (IGg, IGM, IGE) and blood group

This Project Submitted to Council of Collage of pharmacy,
University of AL-Kitab in Partial Fulfilment of
Requirement for the Degree of Bachelor in pharmacy

By Researchers:

Abd al Wahab Mahmoud Yaqoub

Abd al Rahman Hassan mohammed

Mohammed ahmed jajan

Shaima Sheikh Hussein

Zahraa Ahmed Abdullah

Assist. Prof. Dr.: Hassan Ahmed Hassan

2024 A.D

1445 A.H

ABSTRACT

This descriptive paper deals with a graduation research project for a fifth year student in the Faculty of Pharmacy – University of AL-Kitab. It aims to find out the relationship between asthma, immunological factors and blood groups.

Asthma is one of the common diseases that affect the respiratory system and is considered a chronic disease that has a significant impact on the functioning of the body.

As for the immune factors (IGM, IGg, IGE), they may be greatly affected by asthma, as the IGM rises directly when any infection enters the body.

Blood groups are categories that differ from one person to another, and each person has his own type, and the factions are four types

A, B, AB, O. Blood Group generally is not effected on the Asthma.

During ages and genders, and the results showed that

%02 of people have normal immune factors

While the effect appeared in 80% and also affected blood groups.

The IGE immune factor is the most affected immune factor in asthma.

From the results obtained, it was found that IGM has less effect on asthma.

Most patient elevated IGg concentration with asthma and some normal patient is elevated IGg concentration because this patient suffere from other infection.

Republic of Iraq
Ministry of Higher Education
and Scientific Research
UNIVERSITY OF AL-KITAB
COLLEGE OF PHARMACY

Prevalence of Anemia, Iron Deficiency Anemia and its Sociodemographic Factors among Pregnant Women in Kirkuk

Research submitted to the pharmacy college at Al-Kitab University, which is part of the requirements for obtaining a bachelor's degree in pharmacy college

By

بارق ابراهيم محمود
عماد عبد حسين
ابراهيم امير احمد
امير خليل ابراهيم

Supervised By

ا.م. حسن احمد حسن

Date: 28 / 4 / 2024

Abstract

Anemia is the most common hematologic abnormality in pregnancy. Maternal anemia is associated with adverse fetal, neonatal, and childhood outcomes. This study aims to determine the prevalence of anemia, and iron deficiency anemia (IDA), the severity of the condition, and study the effect of some sociodemographic factors on pregnant women in Kirkuk province.

The study was conducted among 157 pregnant women between 17 and 49 years old. Participants completed a questionnaire that included sociodemographic characteristics, disease, and gestational age. A hematological evaluation, including a complete blood count and serum for ferritin testing. Results of this study have shown that the prevalence of anemia and IDA were 34.4% and 15.3%, respectively. Almost three-quarters of the pregnant women had mild anemia, while 31% of the participants had moderate anemia, and about 60% of the participants were diagnosed with normocytic anemia.

The second trimester had the highest prevalence, with 51.9% for the anemic and 45.8% for IDA participants, while the first trimester showed the lowest prevalence, with 14.8% for the anemic and 12.5% for IDA participants. Age, occupation, anemia, and IDA did not make a significant difference.

Moreover, there was no significant difference in blood indices between anemic and IDA participants. The serum ferritin level was unaffected by the pregnancy trimesters.

REPUBLIC OF IRAQ

Ministry of higher education and scientific research

AL-KITAB University

College of pharmacy

جامعة الكتاب
كلية الصيدلة

وزارة التعليم العالي
والبحث العلمي

GRADUATION PROJECT

HORMONAL CHANGE IN PATIENT WITH POLYCYSTIC OVARY SYNDROME

" تم انجاز هذا البحث استكمالا لمتطلبات الحصول على درجة البكالوريوس في الصيدلة"

انجاز الطلبة :-

١. زيد مثنى طارق محمود

٢. مريم عبد المجيب نايف عبد اللطيف

٣. عباس حسين

٤. مصطفى ايمان

مشرف البحث:-

أ.د. شذى رؤوف مصطفى

Hormonal changes in PCOS

Abstract

Polycystic ovary syndrome (PCOS) is a common endocrinopathy occurring in reproductive-age women. Hyperandrogenism, polycystic ovaries, chronic anovulation, and metabolic aberrations are the common features in PCOS. Hormonal changes are causing pathological symptoms in women with PCOS. The various hormone alterations in PCOS have been demonstrated. Hormones, such as insulin, growth hormones (GH), ghrelin, LEAP-2, gonadotropin-releasing hormone (GnRH), insulin, the luteinizing hormone/follicle-stimulating hormone (LH/FSH) ratio, androgens, and estrogens, are all abnormal in PCOS women. These hormones are related to metabolic disorders, such as diabetes and insulin resistance, overweight and obesity, infertility, and disturbed menstrual cycle in PCOS patients. The pathological changes of these hormones, such as increased insulin, reduced GH, increased ghrelin, and leptin resistance, result in an increased prevalence of diabetes and obesity in PCOS women. A reduced GH, increased LEAP-2 levels, high LH basal, increased LH/FSH ratio, high androgens, and low estrogen are demonstrated in PCOS and linked to infertility. This narrative review aims to clarify the changes of hormone profiles, such as insulin, GH, LH, FSH, androgens, estrogen, progesterone, ghrelin, LEAP-2, asprosin, and subfatin, in PCOS, which may reveal novel targets for better diagnosis and treatment of PCOS.

Ministry of higher Education

And Scientific Research

Al-kitab University

College of Pharmacy

EVALUATION OF TABLET DOSAGE FORM

By

Hussam Shallal Shakor Zain Al Abdeen Habib Hazim

Mohammed Fadil Khudur Nama Rikan Battah

This Project Submitted to Council of Collage of pharmacy
University of AL-Kitab in Partial Fulfilment
of Requirement for the Degree of
Bachelor in pharmacy

Supervised By

Dr. Hassan Ahmed

2024

Abstract

Tablet dosage forms represent a cornerstone in pharmaceutical formulations due to their convenience, stability, and ease of administration. This abstract outlines a comprehensive evaluation of tablet dosage forms, encompassing various parameters critical to their quality, efficacy, and safety. The evaluation encompasses physical characteristics such as appearance, size, shape, and uniformity, as well as mechanical properties including hardness, friability, and disintegration time. Additionally, the chemical aspects, including drug content uniformity, dissolution rate, and stability, are thoroughly investigated. Furthermore, considerations extend to pharmaceutical technology, manufacturing processes, and regulatory compliance. The evaluation aims to provide insights into the quality control measures necessary for ensuring the efficacy, safety, and consistency of tablet dosage forms, thereby contributing to the advancement of pharmaceutical science and patient care.

Republic of Iraq

Ministry of higher education & Scientific research

Al Kitab university – College of Pharmacy

2023 – 2024

Students name :

Fatima thabt

Aysha Ali

Zainab Yashar

Aya Arsalan

Supervisor name : Oral bakir

Healthy lifestyle behaviours as a risk factor for chronic disease among university students in Kirkuk province.

Abstract:

Cardiovascular disease (CVD) is one of the leading causes of death worldwide. There are many predisposing factors related to the development of cardiovascular diseases. Risk factors include cigarette smoking, high blood pressure and diabetes, along with a high-fat diet and lack of exercise. The risk factors for young adults accurately predict the long-term risk of CVD. To identify people at risk and encourage lifestyle changes before the disease progresses, early detection is essential. The current study aims to assess the prevalence of CVD risk factors among universities students at in Kirkuk/Iraq. Eight hundred and sixty six students were randomly chosen to participate in the study. Data was collected using questionnaire, which includes Sociodemographic variables and risk factors for cardiovascular disease. The following parameters were evaluated, blood pressure, random blood glucose, body mass index, smoking, physical activity, hours of sleep and eating pattern. It was observed that (48.2%) of student have sedentary live. While only (6.9%) of them consume unhealthy diet as students with overweight consist (38.8%). Intervention programs should thus be started to increase university students' health knowledge of CVD risk factors, encourage them to adopt and stimulate physical activity with cigarette cessation programmes.

Republic of Iraq
Ministry of higher education
and scientific research
Al-Kitab University
College Of Pharmacy

Azilsartan Attenuation of Ocular Toxicity Induced by Cisplatin

A research submitted to the college of pharmacy as a requirement for the B.Sc. degree in pharmacy for the academic year 2023-2024.

Submitted by:
Mustafa Naji Ahmed
Mohammed hamed Abd Al Kareem
Fabian sadi Hanna

Supervised by:
Assis. Prof. Dr. Ansam Naji

2023-2024

Abstract

Azilsartan, a potent angiotensin II receptor blocker, has garnered attention for its potential protective effects against cisplatin-induced ocular toxicity. Cisplatin, a widely used chemotherapy drug, often causes significant ocular side effects, including vision impairment and retinal damage. Recent studies have shown that Azilsartan may mitigate these adverse effects by inhibiting inflammatory pathways and oxidative stress mechanisms within the eye. Its ability to modulate angiotensin II receptors may also contribute to preserving retinal function and reducing apoptosis in ocular tissues. Additionally, Azilsartan's neuroprotective properties may further safeguard against cisplatin-induced neurotoxicity in the visual system. This potential therapeutic intervention holds promise for improving the quality of life for cancer patients undergoing cisplatin treatment, offering a novel approach to mitigate ocular complications associated with chemotherapy. Further research is warranted to elucidate the precise mechanisms underlying Azilsartan's protective effects and optimize its clinical application in preventing cisplatin-induced ocular toxicity.

Republic of Iraq
Ministry of higher education
and scientific research
Al-Kitab University
College Of Pharmacy

Azilsartan Attenuation of Ocular Toxicity Induced by Cisplatin

A research submitted to the college of pharmacy as a requirement for the B.Sc. degree in pharmacy for the academic year 2023-2024.

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Abstract

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Republic of Iraq

Ministry of higher education
and scientific research

Al-kitab university

Faculty of pharmacy

Toxicity of desferrioxamine in thalassimic patients

By

Hala Ali Ibrahim

Rahma Abdulwahed

Salah Zaben

Supervisor

Dr. ansam

1445

2024

ABSTRACT

Thalassemias are a group of inherited hematologic disorders that cause hemolytic anemia. Thalassemia patients who receive chronic multiple transfusions as treatment will develop iron overload. Deferoxamine is a chelating agent used to remove excess of iron. Toxic manifestations of deferoxamine are evidenced by many research studies and case reports. A study on the longitudinal growth in 3 groups of thalassemia major children showed patients treated at an early stage, at a high dose, had more marked growth retardation. A study on 59 Egyptian children with thalassemia major and generalized arthralgia, deferoxamine induced dysplasia-like skeletal abnormalities at radiography were seen 2 children. In a case report, a 29-year-old lady receiving repeated blood transfusions for beta thalassemia since childhood, presented with rapidly deteriorating symptoms of ocular toxicity. A study of 89 patients receiving nightly subcutaneous deferoxamine for thalassemia major or diamond-blackfan anemia, 13 presented with visual loss or deafness of acute onset or both. In a case study, a 17-year-old patient with sickle cell-beta thalassemia received ten times the recommended dose of intravenous deferoxamine developed acute renal failure within hours. In a study, 8 transfusion-dependent thalassemia major patients were given continuous intravenous infusions of deferoxamine, 4 patients developed pulmonary syndrome of moderate to life-threatening severity. A comparative study of deferoxamine versus deferiprone on growth and virulence of Yersinia enterocolitica, deferoxamine promoted systemic Yersinia enterocolitica infections in humans. Deferoxamine is generally wel tolerated but when given at high dose, to patients with low iron burden especially in the first years of transfusion, toxicity may occur.

Keywords: Thalassemia, deferoxamine, chelating agent, iron overload, toxicity.

AL-KITAB UNIVERSITY

COLLEGE OF PHARMACY

A Comparative Analysis of Quality Control Measures: Assessing Varied Drug Formulations Across Brands of ciprofloxacin tablet

By:

Barjas saeed jeiad

Ahmed salih ahmed

Ahmed ali farhan

Graduation Project / Submitted to the College Pharmacy / University of Al-kitab in partial Fulfillment of the Requirements for Degree of Bachelor Of science in pharmacy.2023-2024

Main supervisor: Dr. Ibrahim M. Abdulbaqi

ABSTRACT:

Background: Particularly in developing nations like Iraq, evaluating the in vitro quality of medications produced by various Brands for the same product is crucial to preventing the production of subpar or counterfeit goods. One of the fluoroquinolone antibiotics used to treat infections of the lower respiratory tract, skin and soft tissues, and urinary tract is ciprofloxacin. In Iraq, there are numerous Brands selling ciprofloxacin pills. and this study's objective was to compare the in vitro quality of ciprofloxacin tablets made by five different pharmaceutical businesses by quality assurance. Five top manufacturers of ciprofloxacin tablets, each claiming to be 500 mg on the label, were acquired from Kirkuk City's retail pharmacies and subjected to in vitro quality control testing in accordance with pharmacopeia (USP) that included assessing the disintegration time, friability, hardness, uniformity of diameter, and weight variation. The Outcomes of The five ciprofloxacin businesses' complied with the specifications of weight variations test. and the (ESTECINA) has the highest weight and that the (CIPROSAM) has the lowest weight. The findings showed that every manufacturer of ciprofloxacin pills was able to pass the limit of hardness test except for CIPROSAM , which showed two tablets below the required value in one of the tests, and the highest hardness value was for (CIPROREC) and the lowest hardness value was for CIPROSAM .Each Brand had disintegration times of less than (30) minutes, and they were all in compliance with BP and USP requirements. The percentage of friable Brands was less than 1%, indicating that all companies, except for CIPROSAM , which showed in one of the first tests that 11 tablets were broken, and 3 tablets in the second test, while it passed the third test without breaking. passed the test and fulfilled the requirements. CIPROSAM had the largest variation% and CIPROREC the lowest ones. Diameter test and thickness test of the tablet was within the standards required by USP. In summary This study showed that the five businesses that sell ciprofloxacin tablets in Iraq comply with the BP and USP specifications for quality control tests that measure aspects like friability, disintegration time, and weight variation consistency.

Project Title:

Assessing Quality in Pharmaceutical Formulations: Comparative Studies of Different Brands and Drug Variants For prednisolone tablets

Abeer Adnan Marie
Afaq Jassim Yassin
Sabaa Abd-Alrahman Ahmed

College of Pharmacy

Al-Kitab University

Graduation project /submitted to the college of Pharmacy/university of Al-Kitab in partial fulfillment degree of Bachelor of Science in pharmacy.

2023/2024

Supervisor: Dr. Ibrahim M. Abdulbaqi

Abstract:

Based on WHO definitions, the term quality control refers to the steps and procedures taken by a pharmaceutical manufacturer to ensure the identity, safety, efficacy, and purity of a particular drug product. Quality control is an essential process in the pharmaceutical industry and is a vital part of current Good Manufacturing Practices. It ensures that the pharmacokinetic and pharmacodynamic properties are predictable and reproducible for the same active pharmaceutical ingredient when manufactured by different companies. This study aims to evaluate the quality of Iraqi pharmaceutical products present in the Iraqi market in the brand industry. After conducting laboratory experiments on the six samples represented by five Iraqi companies and a brand company, the results showed that the six companies passed the weight variation test and the friability test as well as the disintegration test in addition to the thickness and diameter test, where The results were within the accepted USP standards, but the results showed that 3 out of 6 companies failed to pass the hardness test, including the brand company, despite passing the other tests. The study showed that the Iraqi companies that manufacture prednisolone are of high quality, conforming to USP standards, and are almost close if not, Be superior to the brand company.

Republic of Iraq
Ministry of Higher Education And Scientific Research
Al Kitab University / College of Pharmacy

The Relationship Between Obesity and GERD

A Research project Submitted to

A Research project
Submitted to the department Al Kitab University College/
Department College of Pharmacy as partial fulfillment of the
Requirement for the degree of bachelor in College of Pharmacy

SUBMITTED BY

Aisha Badawi Younes

Mina Yarab Siddiq

Hossam Hussein Ibrahim

Supervised By

Dr. Rizgar Faisal Ahmed

2024 A.D **1444 A.H**

Abstract

This study will utilize a cross-sectional design to investigate the relationship between obesity and gastroesophageal reflux disease (GERD). The study will involve recruiting participants from a primary care clinic who will be assessed for their body mass index (BMI) and presence of GERD symptoms.

Participants will be asked to complete a questionnaire to assess their symptoms of GERD, such as heartburn, regurgitation, and difficulty swallowing. Their BMI will be calculated based on their height and weight measurements taken by a trained research assistant.

Statistical analysis will be conducted to determine if there is a significant relationship between obesity and GERD. This analysis will involve calculating the correlation coefficient between BMI and GERD symptoms, as well as conducting logistic regression analysis to determine the odds of having GERD based on BMI category.

Ethical considerations will be taken into account throughout the study, including obtaining informed consent from participants, ensuring confidentiality of data, and providing appropriate care and support for individuals with GERD symptoms.

This study aims to provide valuable insights into the relationship between obesity and GERD, which could inform future prevention and treatment strategies for individuals at risk of developing GERD.

Ministry of Higher Education
and Scientific Research
Al Kitab University
College of Pharmacy

RATIONAL USE OF ANTIBIOTICS FOR INFECTIONS IN PUBLIC HOSPITALS AGAINST CULTURE/SENSITIVITY TEST REPORTS FROM FORMAL LABOR

A Research submitted to the college of Pharmacy, Al Kitab University
As fulfillment of the requirement of the graduation project

Submitted by:
Edison Mustafa Abdullah
Diana Mustafa Abdullah
Abdulrahman Waleed

Supervised by:
Prof. Omed Omar Darwesh

1445A.H

2024 A.D

Abstract

Background: An important task of the clinical microbiology laboratory is the performance of antimicrobial susceptibility testing of significant bacterial isolates. The goals of testing are to detect possible drug resistance in common pathogens and to assure susceptibility to drugs of choice for particular infections. The most widely used testing methods include broth microdilution or rapid automated instrument methods that use commercially marketed materials and devices. Manual methods that provide flexibility and possible cost savings include the disk diffusion and gradient diffusion methods. Each method has strengths and weaknesses, including organisms that may be accurately tested by the method. Some methods provide quantitative results (eg, minimum inhibitory concentration), and all provide qualitative assessments using the categories susceptible, intermediate, or resistant. In general, current testing methods provide accurate detection of common antimicrobial resistance mechanisms. However, newer or emerging mechanisms of resistance require constant vigilance regarding the ability of each test method to accurately detect resistance.
There are concerns with inappropriate prescribing of antibiotics in hospitals especially broad spectrum in Kirkuk and the subsequent impact on antimicrobial resistance rates. One recognized way to reduce inappropriate prescribing is for empiric therapy to be adjusted according to the result of culture sensitivity reports.

Aim: This study was aimed to determine rational use of antibiotic therapy in ICU patients and its impact on clinical outcomes and mortality rate.

Objective: Using culture sensitivity reports to optimize antibiotic prescribing in a teaching hospital in Kirkuk.

Methods: A retrospective observational study was undertaken in Azadi Teaching Hospital. A total of 90 positive cultures were taken from patients during the study period (March 2024). The results of pathogen identification and susceptibility testing from patient-infected sites were assessed. Additional data was collected from the patient's medical file. This included demographic data, sample type, causative microbe, antimicrobial treatment, and whether empiric or definitive treatment as well as medicine costs. Antimicrobial data was assessed using World Health Organization's Defined Daily Dose methodology.

Ministry of higher Education and Scientific research

Al-kitab University - College of Pharmacy

Iraq - Kirkuk

April 30th, 2024

Rational use of antibiotics for infections in public hospitals against culture/sensitivity reports from formal records, Kirkuk, Iraq.

Paper submitted to to University of Al-Kitab - College of pharmacology as part of fifth stage graduation research paper

Completed by:

Sumaya taha fatah

Sara Talib Mansur

Fatima Attia Ibraheem

Dunya erfan burhan

Aya mohammed salih

Under the supervision of

Assistant Professor Dr

Omeed O. Darweesh

Abstract

Background: Growing trends of unregulated antibiotics use in the public health sector has risen concerns about treatment effectiveness, Due to the lack of adequate statistics and regulations around prescription of data driven antibiotics. This study aims to provide a sufficient outlook into the prevalence of resistance and the best course of treatment guidelines according to data collected from hospitals around Kirkuk, Iraq.

Methods: This cross-sectional study was conducted in the period between February-April 2024 using Hospital records of bacterial sensitivity/resistance cultures. Convenience sampling method was used. The records included 113 individuals aged 10–80 years, from government hospitals, this included Azadi teaching hospital, and the Republic (Jumhuri) Teaching Hospital. The records provided demographic data along with the results of their cultures and drug treatment plans. Poisson and logistic regression models were used to study the relationship between the culture results and drugs indicated in their treatment.

Results: Of 113 samples of positive cultures registered, 32 (28.3%) had Anti-Microbial Resistance (AMR) to at least on drug, in a different or same class, with 5 (4.4%) having resistance to Multiple-Drug Resistance (MDR) in at least one strain of isolates, the average age of sample size 56.3 ± 8.34.

Conclusions:The rates of single and multi-drug resistant bacteria is on the rise from previous years, necessitating the need for comprehensive change of guidelines and monitoring systems.

Keywords: Anti-microbrial Resistance (AMR) ; multi-drug resistance (MDR); Culture-positive

Ministry of Higher Education
and Scientific Research
Al Kitab University
College of Pharmacy

RATIONAL USE OF ANTIBIOTICS FOR INFECTIONS IN PUBLIC HOSPITALS AGAINST CULTURE/SENSITIVITY TEST REPORTS FROM FORMAL LABOR

A Research submitted to the college of Pharmacy, Al Kitab University
As fulfillment of the requirement of the graduation project

Submitted by:
Edison Mustafa Abdullah
Diana Mustafa Abdullah
Abdulrahman Waleed

Supervised by:
Prof. Omed Omar Darwesh

2024 A.D **1445A.H**

Abstract

Background: An important task of the clinical microbiology laboratory is the performance of antimicrobial susceptibility testing of significant bacterial isolates. The goals of testing are to detect possible drug resistance in common pathogens and to assure susceptibility to drugs of choice for particular infections. The most widely used testing methods include broth microdilution or rapid automated instrument methods that use commercially marketed materials and devices. Manual methods that provide flexibility and possible cost savings include the disk diffusion and gradient diffusion methods. Each method has strengths and weaknesses, including organisms that may be accurately tested by the method. Some methods provide quantitative results (eg, minimum inhibitory concentration), and all provide qualitative assessments using the categories susceptible, intermediate, or resistant. In general, current testing methods provide accurate detection of common antimicrobial resistance mechanisms. However, newer or emerging mechanisms of resistance require constant vigilance regarding the ability of each test method to accurately detect resistance.
There are concerns with inappropriate prescribing of antibiotics in hospitals especially broad spectrum in Kirkuk and the subsequent impact on antimicrobial resistance rates. One recognized way to reduce inappropriate prescribing is for empiric therapy to be adjusted according to the result of culture sensitivity reports.

Aim: This study was aimed to determine rational use of antibiotic therapy in ICU patients and its impact on clinical outcomes and mortality rate.

Objective: Using culture sensitivity reports to optimize antibiotic prescribing in a teaching hospital in Kirkuk.

Methods: A retrospective observational study was undertaken in Azadi Teaching Hospital. A total of 90 positive cultures were taken from patients during the study period (March 2024). The results of pathogen identification and susceptibility testing from patient-infected sites were assessed. Additional data was collected from the patient's medical file. This included demographic data, sample type, causative microbe, antimicrobial treatment, and whether empiric or definitive treatment as well as medicine costs. Antimicrobial data was assessed using World Health Organization's Defined Daily Dose methodology.

Rational use of antibiotics for infections in public hospitals against culture/sensitivity test reports from formal laboratories.

By Abdulrahman Saad Abdulqadir, Ahmed Nuri Akram

Supervised by Dr. Omeed Omar Darweesh

Alkitab university, college of pharmacy

Abstract:

Background: antibiotic resistance is an increasing problem in the world, and especially in Iraq due to absence regulations and laws to inhibit the reckless use of antibiotics in all regions of its use

Objective: to assess the severity of the prevalence of antibiotic resistance among the different bacterial species, and to assess patient background and possible misuse.

Design and methods: a cross sectional study of 60 patients, all outpatients visiting al-Salam teaching hospital, and Mosul general hospital in Ninawa to do culture sensitivity tests.

Result: most of the samples were from women patients (66%) and most causative pathogen was E.coli, most resistance was among cephalosporins and beta-lactam antibiotics.

Conclusion: antibiotic resistance remains a big threat in our healthcare system guided by irrational patient and prescriber misuse

Keywords: (antibiotic resistance, UTI, Ninawah, public hospital, culture sensitivity testing)

Al-Kitab University-

College of Pharmacy

A questionnaire based survey among pharmacy practitioners to evaluate their knowledge, understanding and confidence about handling of antibiotic drugs

Graduated project submitted to the Al_kitab University / college of pharmacy as a part of obtain of BSc degree of pharmacy college (2023-2024)

Prepared by :

Maab Mahmood

Qais Najdat

Mohammed Tariq

Mohammed Yassin

Supervisors by :

Dr. Shathel khalaf

Abstract

The document begins with an introduction that highlights the historical perspective of infectious diseases and the development of antibiotics. It emphasizes the importance of antibiotics in combating various diseases that were once epidemic, such as cholera, syphilis, tuberculosis, and typhoid fever. However, it also acknowledges the emergence of antibiotic resistance as a significant challenge in the field of medicine.

Provides an overview of the methodology employed in the study. It states that a cross-sectional online questionnaire survey was conducted among pharmacists practicing in Kirkuk. The survey targeted pharmacists who had graduated from the College of Pharmacy and were working in various healthcare settings such as pharmacies, hospitals, and colleges. The questionnaire was validated, and participants were selected based on specific criteria.

Presents the results of the study. It includes demographic information about the participants, such as their occupation, degree, and graduation year. The results indicate that the majority of participants were recent graduates, holding bachelor's degrees, and working in community pharmacies.

The chapter also discusses the participants' knowledge and understanding of antibiotics based on their responses to the questionnaire. It covers topics such as the appropriate use of antibiotics, side effects, superbugs (antibiotic-resistant bacteria), antibiotics for viral infections, and drug interactions. The document highlights the percentage of participants who answered each question correctly and provides insights into areas where further education or training may be needed.

which is truncated in the provided content, presumably contains a discussion of the study findings. It likely elaborates on the implications of the results, compares them to existing literature, and provides recommendations for improving antibiotic stewardship and education among pharmacists.

Overall, the document appears to be a research study conducted to assess the knowledge and understanding of pharmacists in Kirkuk regarding antibiotic stewardship. It sheds light on the current understanding and areas of improvement in the appropriate use and prescription of antibiotics, particularly in the context of antibiotic resistance.

Ministry of Higher Education
and Scientific Research
Al-Kitab University
College of Pharmacy

وزارة التعليم العالي والبحث العلمي
جامعة الكتاب
كلية الصيدلة

Graduation Project

Plant Used In The Treatment Of Breast Cancer

A project study

Submitted to the department of pharmacy Al Kitab University college in Partial Fulfillment of the Requirements for the Degree of Bachelor in pharmacy

Supervised By

Dr. Abdulaziz Ali

By

Noora Jabbar Abd

Asraa Hussein Hamud

Majeda Jasem Mohammed

2024 م

Ministry of Higher Education and Scientific Research

Al-kitab University

College of pharmacy

Bacteriophage as Potential New Therapeutic to Replace or Supplement Antibiotics

Research submitted to college of pharmacy by:

Raghda Mohammed Muayad

Mohammed Ghassan Adnan

Solav Ali Hussain

Zainab Hashim Haseeb

Part of the requirements for obtaining a bachelor's degree in Pharmacy

Supervised by

Assistant lecturers MSC. Elham Hasan Kareem

Ministry of Higher Education And

Scientific Research College of Pharmacy

Department of Pharmacy

of Al kitab University

Organ toxicity of cytotoxic drugs in breast cancer patients

A graduation project is submitted to College of Pharmacy of Al kitab University fulfillment of the requirements for the degree of Bachelor's in Department of Pharmacy

Presented by

Youssef Saad Yassin

Sibal Shaheen Sabah

Raja Muhammad Akbar

Supervisor by

Assist.Prof.Dr. Ansam Naji Abboud

2023 A.D. **1444 A.H.**

Ministry of Higher Education and Scientific Research

University Al - ketab

Department of Pharmacy Medicine

covid-19 effect on the cns

Graduation project submitted to the Department of Pharmacy Medicine

University of Al- Kitab

As part of the requirements for a bachelor's degree in pharmacy medicine

By students

Amna Najim Abdullah

Noor Hameed Rasheed

Amjad Ali Dhrib

supervision

Doctor Thulfiqar Abdullah .M.

1446 AH

2024 AD

Ministry of higher Education
And Scientific Research
Al-kitab University
College of Pharmacy

Rheumatoid arthritis : deformity and possibility of prevention

A Graduation Project
Submitted to the Committee of Scientific Affairs of the College of Pharmacy in Partial Fulfillment of the Requirements for the Degree of B.Sc in Pharmacy

By

Bassim Mohammed Jasim
Adeham Abdulilah Yousuf
Haider Ramadan Juma

Supervised by

Dr. Thulfiqar Abdullah

Msc. In pharmacology and toxicology

2024-1445

Abstract

The RA (rheumatoid arthritis) is heterogeneous, symmetrical chronic progressive autoimmune disease with a high socio-economic burden. This disease is more common in women compared to men (3:1). Joint involvement occurs early in the natural history of the condition. and it can lead to bone erosion and deformities, and finally damage.

the discovery of the 'Pre-RA' stage of seropositive disease has led to the development of several clinical trials where individuals are studied to identify ways to delay or prevent the onset of clinically-apparent IA/RA.

At the cellular level, the immune system continues to recognize and responds to the autoantigen that leads to persistent activation CD4+ T cells and B cells. Activated B produces rheumatoid factor that lead to the formation of immune complexes in the synovial space, activating complement to stimulate migration of neutrophils into the synovial space. Chemokine production enhances the migration of mononuclear cells into the joint space, adding further to the exudative component of the disease. Proinflammatory cytokines also stimulate the production of collagenases, , and other growth factors stimulate fibroblast proliferation, resulting in invasive pannus formation, leading to osteoclast activation and bone destruction. In the final stage, the inflammatory reaction extinguishes and is replaced by fibrosis, which causes tendon adhesions and fixed deformities One of the end results of this pathological inflammation is the disruption of the balance between flexor and extensor tendons, which produces the characteristic deformities.

Aim of study

This review will focus on several issues relevant to understanding the prevention of rheumatoid arthritis and a review type of deformity caused by RA

Keywords: rheumatoid arthritis, deformity ,prevention

Republic of Iraq Ministry of Higher Education
and Scientific research

Al-Kitab University

College of Pharmacy

Evaluation of some biomarker markers in patient with Myocardial Infraction

Done By:

Elaf Ghaleb Hussien

Arzu Sinan Hussien

Dunya Sonay Kareem

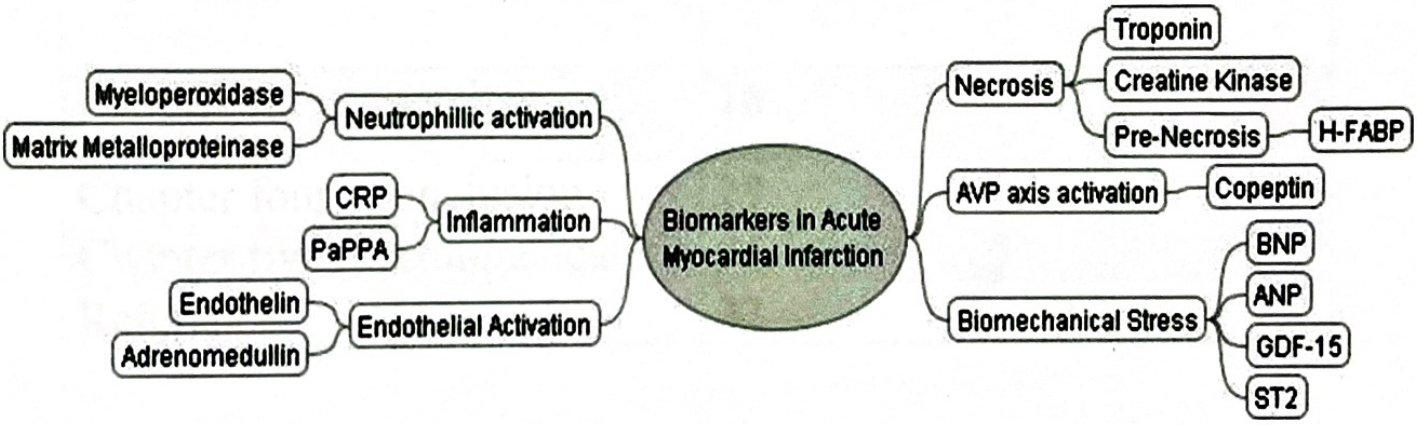
Supervised By:

Dr. Thulfiqar Abdullah

1445A.H **2024A.D**

ABSTRACT

Myocardial infarction (MI) is a term used for an event of heart attack which is due to formation of plaques in the interior walls of the arteries resulting in reduced blood flow to the heart and injuring heart muscles because of lack of oxygen supply. Acute myocardial infarction (AMI) is the leading cause of death worldwide, with early diagnosis still being difficult. Promising new cardiac biomarkers such as troponins and creatine kinase (CK) isoforms are being studied and integrated into clinical practice for early diagnosis of AMI. The cardiac-specific troponins I and T (cTnI and cTnT) have good sensitivity and specificity as indicators of myocardial necrosis and are superior to CK and its MB isoenzyme (CK-MB) in this regard. Besides being potential biologic markers, cardiac troponins also provide significant prognostic information. The introduc- tion of novel high-sensitivity troponin assays has enabled more sensitive and timely diagnosis or exclusion of acute coronary syndromes. This review summarizes the available information on the potential of troponins and other cardiac markers in early diagnosis and prognosis of AMI.



(Biomarkers associated with various pathophysiological processes associated with acute myocardial infarction)

Republic of Iraq

Ministry of Higher Education And
Scientific Research

Al-Kitab University

College of Pharmacy

Review Study About Metformin And Insulin Resistance

PROPOSAL OF PROJECT GRADUATION IN PHARMACY COLLEGE AL-KITAB UNIVERSITY (IN PARTIAL FULFILLMENT FOR THE (DEGREE OF BACHELOR OF PHARMACY

By:

Mohammed Azad Fateh

Hawre Adil Mahmood

Sedra Najim Taha

Faris Mohammed Esmat

Supervised by:

Dr.Thulfiqar Abdullah

AL-Kitab University

College of Pharmacy

Antibacterial Susceptibility of Escherichia coli Isolated from Urine Samples in Different Hospitals of Kirkuk City

graduation project in pharmacy college Al-Kitab university (in partial fulfilment for the degree of bachelor of pharmacy)

Student:

Abdulrahman Kamel

Narjis Firas

Marwa Safir

Supervisor:

Dr. Osama Abduallah Hasan

2023 – 2024

Abstract:

In the last decades, antimicrobial resistance has become a global threat to public health systems worldwide. Among those bacteria that pose the greatest threat to human health because of its growing resistance to antibiotics are the members of the Enterobacteriaceae family, particularly Escherichia coli and Klebsiella spp. Among the different antibiotic-resistant mechanisms developed by bacteria, the ones found in Enterobacteriaceae are more diverse than those in other families and include resistance to different antibiotic groups, advantages that partially explain why these Microorganisms are among the most common causes of antibiotic-resistant bacteria real infections in humans, due to the continuously increasing number of infections Caused by multidrug-resistant E. coli due to its ease of transmission via the fecal oral route among humans and from environmental sources, the understanding of the epidemiology of these strains and their mechanisms of resistance are key components in the fight against these infections.

Ministry of Higher education & Research scientific

AL-KITAB University
College of Pharmacy

Effect of Covid-19 on type 2 Diabetic Patients

A Research Submitted to the Council of the Pharmacy Department Al-Kitab University / College of Pharmacy in Partial Fulfillment of the Requirement For the Degree of the Bachelor in Pharma Science

By

Jehan Najat Mohammed Saeed

Supervised by

Ph.D clinical Pharmacy Niazy Burhan Al-Din

Shawal 1443 A.H

2022 May A.D

Abstract

Background: Type 2 diabetes mellitus (T2DM) is a metabolic disorder and typically results from excess of caloric intake over energy expenditure. It is characterized by a progressive insulin secretory defect which increases the body's demand for insulin in order to retain glucose homeostasis. Chronic hyperglycemia is associated with long-term damage, dysfunction, and failure of different organs, especially the eyes, kidneys, nerves, heart, and blood vessels.

Aim: To assess the effect of covid-19 on patients with type 2 diabetic mellitus .

Methodology: Quantitative design (a descriptive study) was carried out from 20/12/2020 to 25/5/2022. A probability sample (55) was selected. The data were collected through the application of a validated questionnaire, in the parts, the first part was related to social and demographic data, the second part was about Impact of Covid-19 on Patients Diabetic mellitus type 2 , part three was about coronavirus-19 test and diabetic mellitus . Data were analyzed using simple meta-statistical measures using the Statistical Package for Social Sciences (SPSS version 24).

Results: Results show that the higher percentage of samples were in range (61-75) and constitute (58.2%). In residence the results shows that (92.7%) of patients were living in urban areas. Regarding education level the results indicate that (23.6%) of students were graduated from colleges. With duration of diabetic (69.1%) of patients were have more than 8 years of diabetic disorder, in therapy type (52.7) prefer Insulin.

Conclusion: The study concludes that age between (61-75) were more likely to get coronavirus infection. The study conclude there in no association between covid-19 and diabetic supply. All types of diabetic were in danger from the coronavirus coumad-19.

Recommendation: Maintaining a moderate level of sugar by staying away from sugars and starches and taking preventive measures such as sterilization. Be sure to follow the monitoring of the cumulative sugar level by conducting a periodic examination every three months .

PATTERN OF HERBAL MEDICINE UTILIZATION AMONG CITIZENS IN SALAH AL-DIN GOVERNORATE IN IRAQ

THIS RESEARCH SUBMITTED TO THE COUNCIL OF THE COLLEGE OF PHARMACY AT AL-KITAB UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR A BACHELOR'S DEGREE IN PHARMACY

Prepared by

Teba Bahaa Ramadan
Tabark Nazar Faiq
Bilal Hamody Essam

Supervised by

Asst. Lecturer Mr. Aram Sardar Ibrahim
MSC in clinical pharmacy ,
International practice and policy

2024 A.D.

1445 A.H.

Republic of Iraq
Ministry of Higher Education and Scientific Research
Alkitab university college of pharmacy

Effects of NSAIDs on GI

Graduation Project by student
(Nour Mahir Hamadi)
Submitted to the pharmacy college
As part of the requirements for a bachelor's degree in pharmacy
Under the supervision of dr
(Rozhgar Faysal Ahmed)

M.Sc. Clinical Pharmacy

2024 A.D **1445 A.H**

Republic of Iraq
Ministry of Higher Education and Scientific Research
Alkitab university college of pharmacy

Effects of NSAIDs on GI

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M.Sc. Clinical Pharmacy

2024 A.D

1445 A.H

Abstract

Non-steroidal anti-inflammatory drugs (NSAIDs) are used chronically to reduce pain and inflammation in patients with arthritic conditions, and also acutely as analgesics by many patients. Both therapeutic and adverse effects of NSAIDs are due to inhibition of cyclooxygenase (COX) enzyme. NSAIDs are classified as non-selective and COX-2-selective inhibitors (COXIBS) based on their extent of selectivity for COX inhibition. However, regardless of their COX selectivity, reports are still appearing on the GI side effect of NSAIDs particularly on the lower gastrointestinal (GI) tract and the harmful role of their controlled release formulations.
Non-steroidal anti-inflammatory drug (NSAID use increases the risk of gastrointestinal complications such as ulcers or bleeding. The presence of factors like advanced age, history of peptic ulcer, Helicobacter pylori infection and the use of anticoagulants or anti platelet agents increase this risk further. COX-2 inhibitors and proton pump inhibitors, help to minimize the risk of gastrointestinal complications in high-risk patients .

Key words

non-steroidal anti-inflammatory drugs, NSAIDs, gastrointestinal, PPIs, COX-2 inhibitors

Reference:

https://www.researchgate.net/publication/259606295_Adverse_Effects_of_Nonsteroidal_Antiinflammatory_Drugs_An_Update_of_Gastrointestinal_Cardiovascular_and_Renal_Complications

Republic of Iraq Ministry
of Higher Education
and Scientific Research
Al-Kitab University
Pharmacy college

Abuse and misuse of antibiotics

Research submitted to the pharmacy college at Al-Kitab University, which is part of the requirements for obtaining a bachelor's degree in pharmacy college

Submitted By

Lena Firas Hazim

Safa Dawood Salman

Hanen Alaauldeen Juber

Under Supervised of

Associate prof. Yasser Abdel Aleem

2023/2024

Abstract

Antimicrobial agents are some of the most widely, and often injudiciously, used therapeutic drugs worldwide. Important considerations when prescribing antimicrobial therapy include obtaining an accurate diagnosis of infection; understanding the difference between empiric and definitive therapy; identifying opportunities to switch to narrow-spectrum, cost-effective oral agents for the shortest duration necessary; understanding drug characteristics that are peculiar to antimicrobial agents (such as pharmacodynamics and efficacy at the site of infection); accounting for host characteristics that influence antimicrobial activity; and in turn, recognizing the adverse effects of antimicrobial agents on the host. It is also important to understand the importance of antimicrobial stewardship, to know when to consult infectious disease specialists for guidance, and to be able to identify situations when antimicrobial therapy is not needed. By following these general principles, all practicing physicians should be able to use antimicrobial agents in a responsible manner that benefits both the individual patient and the community.

Republic of Iraq
Ministry of Higher Education
and Scientific Research
Al-Kitab University
Pharmacy college

Peptic Ulcer

Research submitted to the pharmacy college at Al-Kitab University, which is part of the requirements for obtaining a bachelor's degree in pharmacy college.

By

Omer Jomaa Shakur
Hassan Ahmed Abd
Abdullatif Mahmoud Khalaf
Mohammad Talal Adham

Supervisor

Dr. Hassan Ahmed

2023/2024

Abstract

Peptic ulcer disease (PUD) refers to acid peptic injury of the digestive tract, resulting in mucosal break reaching the sub mucosa. Peptic ulcers are usually located in the stomach or proximal duodenum, but they can also be found in the oesophagus or Meckel's diverticulum. H. pylori infection and the use of nonsteroidal anti-inflammatory drugs (NSAIDs) are the predominant causes of peptic ulcer disease in the United States, accounting for 48 and 24 percent of cases, respectively. Typical symptoms of peptic ulcer disease include episodic gnawing or burning epigastric pain; pain occurring two to five hours after meals or on an empty stomach; and nocturnal pain relieved by food intake, antacids, or antisecretory agents. The pain of gastric ulcers increases 2 to 3 hours after a meal and may result in weight loss, whereas the pain of duodenal ulcers decreases with a meal and may result in weight gain. Any patient presenting with anemia, melena, hematemesis, or weight loss should be further investigated for complications of PUD, predominantly bleeding, perforation, or cancer. A physical exam may reveal epigastric abdominal tenderness and signs of anemia. Treatment always directed to the cause of ulcer. It can also debut with complications such as upper gastrointestinal bleeding, perforation or stenosis. The diagnostic technique of choice is upper gastrointestinal endoscopy. Treatment with proton pump inhibitors (PPIs), eradication of H. pylori and avoiding the use of NSAIDs are the basis of treatment. However, prevention is the best strategy, it includes an adequate indication of PPIs, investigation and treatment of H. pylori, avoiding NSAIDs or using those that are less gastrolesive.

Republic of Iraq
Ministry of Higher Education
and Scientific Research
Al-Kitab University
Pharmacy college

Hypertension

Research submitted to the pharmacy college at Al-Kitab University , which is part of the requirements for obtaining a bachelor's degree in pharmacy college

By

Fatima Ghazi Sadraldin
Nour Ali Jamal
Zainab Tariq Waseh
Ayoub Hussein Khadr

Supervisor

Dr. Hassan Ahmed

2023/2024

Abstract

Hypertension is a significant and costly public health problem. It is a major, but modifiable contributor for the development of cardiovascular disease. Randomized controlled trials have shown that controlling hypertension reduces the risk of stroke, coronary artery disease, congestive heart failure, end-stage renal disease, peripheral vascular disease, as well as overall mortality. The risk of developing these hypertension-related complications is continuous, starting at a blood pressure level as low as 115/75 mm Hg. Despite the inherent health risks associated with uncontrolled hypertension, elevated blood pressure remains inadequately treated in the majority of patients.Effective cardiovascular prevention in the hypertensive setting needs the achievement of a tight blood pressure (BP) control with appropriate lifestyle measures and anti-hypertensive therapy. In fact, the ultimate goal of treatment strategies is the reduction of the excess of cardiovascular mortality and morbidity related to chronically elevated BP.

Republic of Iraq
Ministry of higher education and scientific research
Al-Kitab University
College Of Pharmacy

Neonatal treatment in neonatal care unit

Graduation project

submitted to the council of the college of pharmacy, Al-Kitab university in the partial fulfillment of the requirements for the degree of B.Sc. in pharmacy

by

Marwah safauldeen sameen
Eman mohammed abdulwahab
Hajar nooraldin mohammed

Supervised by:
Dr. Warqaa Naseer Saadoun

2023 - 2024

Abstract

Background

Neonatal treatment in neonatal care units refers to the specialized medical care provided to newborn infants, particularly those born prematurely or with medical conditions requiring intensive care.

Methods

This study conducted at Pediatric hospital in Kirkuk city in the period from 16/11/2023 to 18/2/2024, 50 newborns admitted to the neonatal care unit after agree with ethical issues.

Results

The finding in this table indicated that in the study group the newborns age is (35.05±2.322) weeks, 44% for males and 56% for females, And the type of delivery 62% of newborns is C/S, 38% is NVD, And the Gestational age 52% is Term (>37 Week), and 48% is (Pre term <37 Week).

Conclusion

Neonatal treatment in neonatal care units encompasses a wide range of medical conditions, including preterm labor, respiratory distress syndrome, and neonatal jaundice. While significant progress has been made in improving neonatal survival rates and optimizing treatment strategies, ongoing research, interdisciplinary collaboration, and quality improvement initiatives are essential to address existing challenges and further enhance outcomes for newborns requiring neonatal care

Republic of Iraq

Ministry of Higher Education and

Scientific Research

Al- Kitab University/College of

Pharmacy

Rational use of antibiotics for infections in public hospitals against culture/sensitivity test reports from formal laboratories

A Project

Submitted to the College of Pharmacy, Al- Kitab University as Partial Fulfillment of the Requirements for the B.Sc. Degree in Pharmacy

By:

Noor Sherwan Najmadin

Rangin Abdullah Ahmed

Supervised by:

Dr. Omeed Omer Darweesh

Abstract

Antibiotic susceptibility testing (AST) plays a pivotal role in guiding clinical decisions regarding antibiotic therapy. This summary provides a comprehensive overview of AST, outlining its importance, methodologies, interpretation, and implications in clinical practice. The primary goals of AST include determining the susceptibility or resistance of bacterial isolates to particular antibiotics and helping clinicians choose the most effective treatment regimen for bacterial infections. Various AST methods, such as disk diffusion, broth microdilution, and automated systems, are discussed, highlighting their principles, advantages, and limitations. Interpreting AST results involves understanding the minimum inhibitory concentration (MIC), breakpoints, and epidemiological cutoff values (ECVs), which influence therapeutic decisions. In addition, emerging technologies, such as whole genome sequencing and molecular approaches, are shaping the future of AST by providing rapid and accurate detection of antimicrobial resistance mechanisms. This summary underscores the importance of AST in combating antimicrobial resistance and emphasizes ongoing efforts to improve and innovate AST methodologies to enhance patient care and antimicrobial stewardship.

Republic of Iraq
Ministry of Higher Education and Scientific Research
Alkitab university college of pharmacy

Effects of NSAIDs on GIT

Graduation Project by student
(Nour Mahir Hamadi)
Submitted to the pharmacy college
As part of the requirements for a bachelor's degree in pharmacy
Under the supervision of dr
(Rozhgar Faysal Ahmed)

M.Sc. Clinical Pharmacy

2024 A.D **1445 A.H**

Abstract

Non-steroidal anti-inflammatory drugs (NSAIDs) are used chronically to reduce pain and inflammation in patients with arthritic conditions, and also acutely as analgesics by many patients. Both therapeutic and adverse effects of NSAIDs are due to inhibition of cyclooxygenase (COX) enzyme. NSAIDs are classified as non-selective and COX-2-selective inhibitors (COXIBS) based on their extent of selectivity for COX inhibition. However, regardless of their COX selectivity, reports are still appearing on the GI side effect of NSAIDs particularly on the lower gastrointestinal (GI) tract and the harmful role of their controlled release formulations.
Non-steroidal anti-inflammatory drug (NSAID use increases the risk of gastrointestinal complications such as ulcers or bleeding. The presence of factors like advanced age, history of peptic ulcer, Helicobacter pylori infection and the use of anticoagulants or anti platelet agents increase this risk further. COX-2 inhibitors and proton pump inhibitors, help to minimize the risk of gastrointestinal complications in high-risk patients .

Key words

non-steroidal anti-inflammatory drugs, NSAIDs, gastrointestinal, PPIs, COX-2 inhibitors

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Republic of Iraq Ministry of
Higher Education
and Scientific Research
Al-Kitab University
College of pharmacy

Rational use of antibiotics for infections in public hospitals against culture/sensitivity test reports from formal laboratories

Research submitted to the college of pharmacy
at Al-Kitab University, which is part of the requirements for
obtaining a bachelor's degree

Submitted By

Astera jumaa Hussain

Asia Kareem abdulrahman

Rima khalid Rasheed

Dunya amer Ahmed

Supervised by:

Dr.omeed omer darweesh

2024-2023

ABSTRACT:

It is important to shed the light on the fact that this topic is one of the most important issues which attract the attention of many people all over the world which is "antibiotics resistance" because its high impact on human life . So we found great pleasure to study it deeply.

The development of antibiotics has prevented a huge number of deaths. Based on their origin, structure, as well as mode of action, antibiotics have been divided into several classes. Many bacterial strains with significant clinical use have been found to possess both an acquired and inherent mechanism of antibiotic resistance. The development spread of bacteria resistant to effective first-choice, or first-line, medications, this has placed the usage of antibiotics in severe danger. Therefore, in order to reduce the impact of current and emerging antimicrobial resistant bacteria, it is crucial to use antibiotics carefully and look for viable alternatives.

Republic of Iraq

Ministry of Higher Education and Scientific Research

Al-kitab University

College of pharmacy

Wound healing activity of *Rosmarinus officinailis L.*(Lamiaceae)

Search submitted by

Tabark Ali Wali

Maryam Hassan Hidayet

Zinah Adil NasirAldin

Part of the requirements for obtaining a bachelor's degree in Pharmacy

Supervisor by

Assistant lecturers MSC. Elham Hasan Kareem

2024

1445

Abstract

The study was conducted in the period from 12/30/2024 to 1/30/2024 to evaluate the activity of rosemary in healing wounds collected from the mountains of northern Iraq. The results showed that the rosemary plant has excellent wound-healing activity, as it was found that wound healing is better and faster in The group that was treated with rosemary extract ointment compared to the group that was treated with MEBO ointment and the group that was not treated.

EVALUATION OF SOME PHYSIOLOGICAL PARAMETERS AMONG PATIENTS WITH HYPOTHYROIDISM

Abstract

Hypothyroidism is the common clinical condition of thyroid hormone deficiency and, if left untreated, can lead to serious adverse health effects on multiple organ systems, with the cardiovascular system as the most robustly studied target.

The aim of the study is the assessment of serum HbA1C, Folate, Ferritin, D3, Ca(Calcium), TSH (Thyroid-Stimuloting hormone), B12 (Cobolamin)in patients who are diagnosed with Hypothyroidism. A total of (44) samples were gathered from local medical laboratories of which (22) are diagnosed with Hypothyroidism and (22) are considered Normal (Control). In our study we found that serum,vitamin B12 ,ferritin, folate , calcium are decreased by hypothyroidism whereas TSH , hemoglobin A1C , and BMI are increased by hypothyroidism. Whenever there are any thyroid hormone disturbances, alterations in the levels of serum calcium , vitamin B12, folate , ferritin, HbA1C and BMI should be looked for to prevent any abnormalities from occurring. furthermore the study also showed that hypothyroidism does not have a significant effect on vitamin D3 concentrations.