

Department of pediatrics

Student name: Omayma Maher Abdalqader

Supervisor name: Dr. Najdat Shukur Mahmood (MBChB, FICMS)

Graduation Research Title: Relationship between Anemia and Control of Childhood Epilepsy

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Epilepsy is a common and severe neurologic disease associated with increased mortality, seizure-related injury, and adverse psychological and quality-of-life outcomes, hence its control is mandatory and many factors affect its control as age, gender and type of epilepsy.

Objectives: to determine the effect of anemia on control of childhood epilepsy.

Method: This comparative cross sectional study enrolled 95 children having epilepsy from August 2018 to March 2019, those were classified into two groups: Controlled and Refractory epilepsy groups. Hemoglobin concentration was compared in the two groups, it was measured by sysmex XT-2000i automated hematology analyzer in all children of a 2 groups. Statistical analysis was done by statistical package for the social sciences (SPSS) V. 21, Chi square was applied to find the association between variables.

Results: Most of enrolled children have generalized tonic clonic fit with some of them have focal type of epilepsy (p value=.000). About two third of them were boys and most of them were

above 2 years old (p value= .003). Consanguineous parents were identified in most of them and family history of epilepsy and febrile convulsion were present in 27.36% and 35.78%, respectively.

Controlled epilepsy group were involving 42.1 % children, while refractory group were 57.9 % of children. Generalized type of epilepsy insignificantly influenced the control of epilepsy more than focal type (p value= .199). Anemia were more identified in more than half of children of refractory group compared to one third of controlled epilepsy group (p value= .033)

Conclusion: anemia might be an important risk factor for epilepsy drug resistance.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.د.مهدي شمخي جبر	طب الأطفال	رئيساً
٢	أ.د.جليل ابراهيم	طب الأطفال	عضواً
٣	م.د.هيلة عثمان	طب الأطفال	عضواً

Department of pediatrics

Student name: Elaf Satar Saeed

Supervisor name: Assistant prof . Aseel Jasim MBChB.FICPS

Graduation Research Title: Characteristic Associated with Severe Pneumonia in under Five – Years Children Admitted to Albatool Teaching Hospital in Diyala

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background

Among the common childhood illness, pneumonia is a substantial cause of morbidity and mortality in children throughout the world. Approximately,150 million episodes of childhood pneumonia are reported every year from the world, out of which 95% are from developing countries.

Methods

Descriptive study done at Al-batool teaching hospital of pediatric. From the first of august 2018 – first of march 2019, children under 5 years of age who presented to the emergency unit of this hospital with signs and symptoms of sever pneumonia according to WHO classification, were enrolled. A questionnaire was prepared to collect information regarding the following variables : age, sex, feeding history, socioeconomic status, past history, vital signs & general examination findings, in addition to taken

methods of cooking at home, number of children per family, source of exposure to tobacco smoking, white blood cells count / mm³, hemoglobin level / dl & outcome of the management. All forms were filled by asking the parents after taking consent from them. Children with bronchial asthma, bronchiolitis, tuberculosis, history of foreign body, recurrent pneumonia, seriously ill as well as the patients whose parents refused to be included in the study were excluded, these diseases excluded by taking history, making examination & looking for some investigations. Tabulation of the data was performed using Epi-info V6b software. The SPSS program version 16.0 was used for statistical analysis.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	طب الأطفال	أ.م.د.نجدة شكر محمود	١
عضوا	طب الأطفال	م.د.هيلة عثمان	٣

Department of pediatrics

Student name: Noor Ibrahim

Supervisor name: Dr. Hailah Othman Habeeb M.B.Ch.B –F.I.C.MS/P

Graduation Research Title: Risk Factor of Recurrent Febrile Convulsions in Children

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Febrile seizures are the most common convulsive disorder in infants and children. Its occur between the age of 6 and 60 mo. The International League Against Epilepsy (ILAE) has defined febrile seizures as seizure events in infancy or childhood featured with a temperature over 38°C without any evidence of acute electrolyte imbalances or central nervous system. infection² Most cases of FS are benign and self-limiting, and in general, treatment is not recommend³. There are two type of febrile convulsion simple and complex ;; A simple febrile seizure is a primary generalized, usually tonic-clonic, attack associated with fever, lasting for a maximum of 15 min, and not recurrent within a 24-hour period. A complex febrile seizure is more prolonged (>15 min), focal, and/or recurs within 24 hr .

The objective of this study was to identify the risk factors for recurrence of febrile seizures in children.

Materials and Methods: This was a retrospective cohort study done at Al Batool teaching hospital . study conducted over a period of five months , from August 2018 to December 2018 All children with febrile seizure belonging to age group of 6 months to 6 years were included in the study. Those with afebrile seizures or on anticonvulsants and those who refused to give consent were excluded. . Age ,sex of each child family history of febrile seizure and epilepsy, temperature at onset of FC ,duration of fever before onset , type of convulsion (simple or complex) , number of febrile illness per

year , . Complete physical, developmental and neurologic assessments were conducted in each child. On arrival temperature was taken and complete investigation for the cause of fever.

Results : Compared to children with first attack of febrile convulsion, children with recurrent seizures were younger at onset (12_24m) (26% vs. 54%), mainly male (72% vs. 62%) and had more often family history (second degree relative), low degree of temperature (78% vs. 36%), simple febrile convulsion (52% vs. 68%), duration of fever less than 12 hours (78% vs. 70%), and frequent febrile illnesses (74% vs. 20%). first degree family history of febrile convulsion and family history of epilepsy were not significant risk factors.

Conclusions: Awareness of these risk factors should lead pediatricians to suggest administration of short course of diazepam at onset of each febrile illness to prevent recurrent febrile convulsions. Also, public education on recurrent febrile convulsions is needed

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.د. مهدي شمخي جبر	طب الأطفال	رئيساً
٢	أ.د. جليل ابراهيم	طب الأطفال	عضواً
٣	م.د. هيلة عثمان	طب الأطفال	عضواً

Department of pediatrics

Student name: Ahmed abd-ulhamed

Supervisor name: Dr asmaa najim

Graduation Research Title: Survey about incidence of pneumonia in children

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background and objective :

pneumonia is the leading cause of morbidity and mortality among children especially under 5 yrs old and thus my study designed to demonstrate the incidence of pneumonia in which age group more predominant and in which gender .

Methods:

retrospective study on the pneumonia cases attending to albatool teaching hospital from period of 1/1/2018 to 31/12/2018 , we obtain chi square , p value by using spss program

Result:

We obtain p value =0.001, with 53% percentage predominant of pneumonia in infant age dpgroup and in 61%male gender predominance and 39% of female and with 96%of cases improved on treatment and foolow up .

Conclusion:

We conclude that the incidence of pneumonia among cases attending to albatool teaching hospital since 1/1/2018 until 31/12/2018, which show incidence higher in male gender than female and is more common in infant age group and less commonly in preschool age group.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	طب الأطفال	أ.د. مهدي شمخي جبر	١
عضواً	طب الأطفال	أ.د. جليل ابراهيم	٢
عضواً	طب الأطفال	م.د. هيلة عثمان	٣

Department of pediatrics

Student name: Mohamed Jasim Hameed

Supervisor name: Dr. Jalil Ibrahim

Graduation Research Title: Correlation between MPV and Pediatric conditions with infection

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Infectious gastroenteritis is the most common cause of morbidity and mortality worldwide, especially in children younger than 5 years old[1]. Rotavirus is a leading cause of infectious diarrhea in children worldwide, followed by adenovirus and norovirus[1]. Rotavirus infections are known to be more severe and more often associated with a complicated course in viral etiologies[2]. Severe rotavirus-related mortality has been reported in younger children in particular[3]. Moreover, rotavirus may also be the cause of viremia[4] and several other systemic disorders including pancreatitis[5], cerebellitis[6,7], systemic inflammatory response syndrome[8], toxic megacolon[9] and disseminated intra-vascular coagulation[8,10].

Platelets are intimately involved in homeostasis, inflammation, immunity, tissue regeneration and other physiological and pathological processes[11]. Platelets play an important role in the pathogenesis of disorders associated with local or systemic inflammation[11,12]. Thrombotic and inflammatory agents, released from platelets, may trigger disease-specific complications[13,14]. The mean platelet volume (MPV) is a marker of platelet function and activation. Large platelets are hemostatically more active[15]. MPV has long been recognized as an inflammatory marker and its role has been previously demonstrated in various gastrointestinal and other systemic disorders such as familial Mediterranean fever[16], fatty liver disease and atherosclerosis[17,18], renal diseases[19], inflammatory bowel disease[20], liver disease[21] and amebiasis[22].

To our knowledge, there is only one study assessing MPV levels in patients with acute rotavirus gastroenteritis[23]. Therefore, the aim of the present study was to evaluate the possible relationship between MPV and gastroenteritis in patients.

(UTI) is one of the common bacterial infections in children and may lead to serious morbidity and mortality[24,25]. UTI associated with high grade vesicoureteral reflux (VUR) can lead to renal scarring and chronic renal failure[26]. Clinical symptoms and some inflammatory markers have been used for the differentiation of upper from lower UTI[27]. Laboratory findings of UTI

usually show leukocytosis, neutrophilia, and increased erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP) levels[28].

Dimercaptosuccinic acid (DMSA) scan is used in distinguishing acute pyelonephritis (APN) from lower UTI, but it can expose the patients to radiation[39,30]. Platelets play an important role in the pathogenesis of various infectious or inflammatory disorders[31,32]. Platelet counts and mean platelet volume (MPV) have been studied as inflammatory markers in relation to the disease activity[33]. MPV may be increased in mild inflammation due to the emergence of the large platelets in the peripheral circulation and conversely, may be decreased in severe inflammation because of the consumption of large platelets in the inflammatory area[34,35]. MPV has also been studied as an inflammatory marker in various infectious disorders, not only as a negative marker with rotavirus gastroenteritis, but also as a positive marker with hepatitis B, acute appendicitis, and sepsis[36,37,38,39].

we compared MPV in children with APN and with low UTI to determine whether it could be used as an inflammatory marker in distinguishing APN with lower UTI.

Sepsis is a major disease affecting millions of people worldwide each year[40] Approximately 750,000 cases of sepsis per year were seen in the United States (US), and led to 215,000 death. The economic burden of this disease for the US was 16.7 billion US dollars/year[41]. Almost all organs and systems are affected by sepsis. The haemostatic system is also adversely affected[42]In sepsis pathophysiology: clotting cascades do not function, many pro- and anti-inflammatory cytokines are released from mononuclear and endothelial cells, thrombus occurs in later stages, and plasminogen stimulation and antithrombin-III activation take place in the fibrinolytic system[43]As a result, fibrinolytic and fibrinogen substances are depleted, and formation of clots and bleeding associated with disseminated intravascular coagulation (DIC) occur at the same time. In the end, DIC results with increased platelet destruction[44]There is also peripheral non-immune destruction,

hemophagocytic histiocytosis, and marrow suppression, all playing different roles in thrombocytopenia in septic patients[45]

Mean platelet volume (MPV) is a measurement of the average size of platelets found in the blood. There are high MPV levels in destructive thrombocytopenia and low MPV levels in hypoproliferative thrombocytopenia[46].

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د. نجدت شكر محمود	طب الأطفال	رئيساً
٢	م.د. هيلة عثمان	طب الأطفال	عضواً

Department of pediatrics

Student name: Rania Abd Alrazaq Latif

Supervisor name: Dr. Jalil I. Alezzi

Graduation Research Title: Screening of G6PD Enzyme Deficiency Among Children of Five Years Old and Below in Diyala Province

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: G6PD deficiency is the most common gene mutation in the world and the numerous mutations have been classified by the WHO.

Aim of this study is to estimate the prevalence of G6PD enzyme deficiency among children of 5 years old and below attending Al Batool Obstetrics and Children Teaching Hospital in Baqubah city , Diyala, Iraq, and to detect whether the screening of G6PD enzyme deficiency is recommended as a routine test or not.

Materials and method: A hospital based observational study consisting of 150 children (82 boys and 68 girls), in the age group of 5 years and below who attended the Al Batool Obstetrics and Children Teaching Hospital in Baqubah city, Diyala ,Iraq in the period between December 1st 2018 to February 28th /2019. Blood samples were collected from each child. All the samples were analyzed for Hemoglobin (Hb), and G6PD enzyme activity.

Results: Hundred and forty eight out of 150 child had normal enzyme activity, and only two had low enzyme activity.

Conclusion: In our study out of 150 children, only two (1.3%) children tested were G6PD deficient. Thus according to this study the prevalence of G6PD enzyme deficiency is low and screening for the enzyme deficiency is not warranted.

لجنة المناقشة :

المنصب في اللجنة

الاختصاص

اسم التدريسي

ت

رئيساً	طب الأطفال	أ.م.د. نجدت شكر محمود	١
عضوا	طب الأطفال	م.د. هيلة عثمان	٢

Department of pediatrics

Student name:

Supervisor name:

Graduation Research Title:

SUPERVISION CERTIFICATE

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Abstract

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	طب الأطفال	أ.د.مهدي شمخي جبر	١
عضواً	طب الأطفال	أ.د.جليل ابراهيم	٢
عضواً	طب الأطفال	م.د.هيلة عثمان	٣

Department of pediatrics

Student name: Elaf Satar Saeed

Supervisor name: Assistant prof . Aseel Jasim MBChB.FICPS

Graduation Research Title: Characteristic Associated with Severe Pneumonia in under Five – Years Children Admitted to Albatool Teaching Hospital in Diyala

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Abstract

Background

Among the common childhood illness, pneumonia is a substantial cause of morbidity and mortality in children throughout the world. Approximately,150 million episodes of childhood pneumonia are reported every year from the world, out of which 95% are from developing countries.

Methods

Descriptive study done at Al-batool teaching hospital of pediatric. From the first of august 2018 – first of march 2019, children under 5 years of age who presented to the emergency unit of this hospital with signs and symptoms of sever pneumonia according to WHO classification, were enrolled. A questionnaire was prepared to collect information regarding the following variables : age, sex, feeding history, socioeconomic status, past history, vital signs & general examination findings, in addition to taken methods of cooking at home, number of children per family, source of exposure to tobacco smoking, white blood cells count / mm³, hemoglobin level / dl & outcome of the management. All forms were filled by asking the parents after taking consent from them. Children with bronchial asthma, bronchiolitis, tuberculosis, history of foreign body, recurrent pneumonia, seriously ill as well as the patients whose parents refused to be included in the study were excluded, these diseases excluded by taking history, making examination & looking for some investigations. Tabulation of the data was performed using Epi-info V6b software. The SPSS program version 16.0 was used for statistical analysis.

Aim of the study

This study sought to assess risk factors for sever pneumonia and to determine clinicoaetiological factors and its outcome in the children under five – years of age.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د. نجدت شكر محمود	طب الأطفال	رئيساً
٢	م.د. هيلة عثمان	طب الأطفال	عضوا

فرع التشريح

Student name: Wassan Nasrat Abdl – wahaab

Supervisor name: Proff. Dr . Shukur Mahmood Yaseen

**Graduation Research Title: Relationships of Fragmentation Rate
Kidney Stone By Extracorporeal Shock Wave Lithotripsy And Many
Factors in Baquba Teaching Hospital**

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Kidney stones are mainly lodged in the kidneys, considering a systemic disorder linked to the metabolic syndrome and have been associated with an increased risk of chronic kidney diseases, end-stage renal failure. . It affects all ages, sexes, and races but occurs more frequently in men than in women. (ESWL) was first introduced in 1980 , It has since become a preferred treatment modality for uncomplicated renal and ureteral stone < 20 mm .

Objectives : Evaluation the factors affecting outcome of (ESWL) of Kidney stone in patient.

Patients and methods: This study conducted to evaluate the efficacy of Extracorporeal shockwave lithotripsy (ESWL) to Fragmentation of Renal stone in patients , carried out from 1st October 2018 to 31 February 2019 in baquba teaching hospital - urology department , for the treatment of kidney stone by using of (ESWL) occurring by 40 patients , males are (17) and females (23).

Results: All patients (40) completed and returned a questionnaire before treated were included in the survey for an a period five months between one October 2018 to the thirty one of February 2019) in forms to exposure treated of kidney stone to(ESWL) , showed the mean age was 44.36 years in range of 11-78). More than half of respondent (23, 57.5%) were females and in average weight of 67.23kg. Most of patients presented with left side (22, 55.0%) renal stone with mean stone size of 11.48 and average distance from skin of 80.23mm. 60% presented with stones of high density and in average Hounsfield unit of 7.1 and in average fragmentation rate of 65.75.

Conclusions : This study revealed that ESWL can treat or fragmentation kidney stone at good outcome successfully by founding many factors affecting and Efficiency of ESWL to improve patient selection and ensure better results.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	وراثة جزيئية	أ.د.شكر محمد ياسين	١
عضواً	تشريح بشري	أ.م.د.نمير فاضل	٢
عضواً	أنف اذن وحنجرة	م.د.دريد حميد	٣

فرع التشريح

Student name: Noor Alaa Hashim

Supervisor name: Lecture Dr. Nameer fadhel

Graduation Research Title: The association between low Apgar score and mortality in preterm neonates.

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

The Apgar score is well-characterized in full-term infants but not in premature infants .the aim of this study is to investigate the relationship between low Apgar score and neonatal mortality in preterm neonates.

Method

Infant birth and death certificate data from Albatool teaching hospital form November 2018 - December 2018

were analyzed. and we calculated Apgar score at 5 minutes and determined the association between low Apgar score and mortality in preterm

Results

Distribution of Apgar scores depended on gestational age, the youngest gestational ages having higher proportions of low Apgar scores. In 48 death cases that obtained from neonatal care units in Albatool teaching hospital.62.5%was male and 37% was female . Neonates 18-35weeks of gestation low Apgar score (0-3) was 73% and for those with gestational age 36-37weeks was 48%,

And the most common cause of death was respiratory failure 87%.and we found that 64% of them die within few days and 22% within hours.

لجنة المناقشة :-

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.د.شكر محمد ياسين	وراثة جزيئية	رئيساً
٢	أ.م.د.نمير فاضل	تشريح بشري	عضواً
٣	م.د.دريد حميد	أنف اذن وحجرة	عضواً

Department of Microbiology

Student name: نور قاسم محمد

Supervisor name: ا.م.د. رواء عبد الخالق حسين

Graduation Research Title: Study of Some blood Parameters in patients Infected With *Entamoeba histolytica* in Diyala Province

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: *Entamoeba histolytica* protozoan is a most public health problem worldwide.

Object: study the effect of *Entamoeba histolytica* on some erythrometric and leucometric parameters of infected patients like packed cell volume, total leucocyte count and differential leucocyte count

Methods: The

populations of this study included 150 patients with different age groups who came to the parasitology laboratory in Baqubah Teaching Hospital and AL-Batool Maternity Teaching Hospital/Diyala province, suffering from gastrointestinal, and 50 free parasitic infection as control. All stool samples were laboratory diagnosed by microscopy, and blood samples were hysmatological analysis

Results: 77(51.33%) of female from 150 patient infected with *E.histyloctica* and this number more than the male 73(48.66%) infected with same organism. The rate of *E. histyloctica* was highest among 21-30 years, it was 32(21.33%) of total number 150, the mixed infection with trophozoite and cystic stages were most apparent stage in *E. histolytica* infection. The statistical analysis of the results has shown a significant lower ($P < 0.05$) in a count to red blood corpuscular, hemoglobin concentration, packed cell volume and type of neutrophil, lymphocyte and monocyte, eosinophile, basiophile showed a significant increase ($P < 0.05$) in patients infected with *E. histolytica* in comparison to healthy control group

Conclusion: The study revealed that the amoebiasis is responsible for decrease in hemoglobin and hematocrit values in infected patients. There is also increase in total leukocyte count during the infection. Amoebiasis is responsible for altering the hematology of infected patients, thus causing health consequences.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	أحياء مجهرية طبية/ فايروسات	أ.د. أريج عطية حسين	١
عضواً	أحياء مجهرية طبية/	أ.د.م. لمى طه	٢

Department of Microbiology

Student name: Elan Raid Latif

Supervisor name: Lecturer Shaima'a R. Al-Salihy

Graduation Research Title: EVALUATION OF URINE DIPSTICK TEST FOR DIAGNOSIS OF URINARY TRACT INFECTION

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Urinalysis and urine culture are the commonest tests requested by clinicians for patients with symptoms suggestive of UTI, however, it is an expensive and time-consuming method. So dipstick probably become rapid diagnostic alternative.

Aims of study: To determine the sensitivity, specificity, positive predictive value and negative predictive value of dipstick for leukocyte esterase (LE) test compared with urine culture for diagnosis of UTI.

Patients and methods: A total of 150 mid-stream urine samples were collected from adult patient with clinically diagnosed or suspected UTI, during the period from 1st October, 2018 to 1st January, 2019. Urine culture, general urine examination (GUE) and dipstick for LE were performed for each sample.

Results: Of 150 urine sample, 126 (84%) were culture positive. The prevalence of UTI among female (84.13%) was significantly higher than the prevalence among males(15.87%). The vast majority of urine culture grew *E.coli* 70 (46.67%) followed by *Klebsiella spp.* 55 (36.67%), and *Staphylococcus aureus* 1(0.67%). The sensitivity, specificity, positive and negative predictive values of dipstick for LE test were 86.5%, 87.5%, 97.3% and 55.25%, respectively. However, the values can be enhanced by combination with GUE.

Conclusion: Both urinalysis and dipstick for LE methods are with predictive value in diagnosis of UTI. Because urine culture is an expensive and delayed test, rapid test could be a good substitution to reduce the workload.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.د.أريج عطية حسين	أحياء مجهرية طبية/ فايروسات	رئيساً
٢	أ.د.م.لمى طه	أحياء مجهرية طبية/ فطريات	عضواً
٣	م.د.أبتسام يونان بيكو	أحياء مجهرية طبية	عضواً

Department of Microbiology

Student name: Sara Saab Fehan

Supervisor name: Dr. Eptissam Younan

Graduation Research Title: Prevalence of Bacterial Blood Infections in Adult Iraqi patients and Types of Antibiotics Resistance

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

This study was undertaken to investigate blood stream infection in adult Iraqi patients and used antibacterial sensitivity test in vitro for the bacteria isolated from the patients to reduce the infection of bloodstream and multi drug resistant. A total of blood samples were collected included 300 adults who attending and/ or admitted (in and out) at Al-Yarmouk teaching hospital in Baghdad city and were clinically suggestive bacteremia and antimicrobial sensitivity test for positive culture was done. This study appear that 69 samples out of 300 were recorded as positive for bacterial culture, 10 bacterial species were isolated from a total of 69 positive blood samples for culture, distribution of study groups according to age were 53% in first age group (20 - 40) years, followed by second group (40 - 60) years, as percentage 21.7%, male (67%) more frequency than female (33%). A total of 69 isolates were collected from blood cultures, 38 from Medical Dept. (12.7%), and 13 from hematology (4.4%). Percentages were calculated per the total number of hospitalized departments, but only 1 (0.3%) samples were collected from the Surgical Dept. During the 6 months period of the study, the frequency of positive bacterial blood culture in inpatients were (13.7%) more than outpatients (9.3%). High percentage of positive bacterial blood culture were in medical department for both male and female 7.4 and 5.3% respectively, followed by hematology department for both male and female 2.0 and 2.4% respectively. High percentage of positive bacterial blood culture were inpatients as 59.4% compare to outpatients 40.6%, and high percentage of positive bacterial blood culture were in female Inpatients (33.3%) more than male inpatients (26.1%), while percentage of positive bacterial blood culture were in male outpatients (26.1%) more than female outpatients (14.5%). Maximum number of positive bacterial blood culture (20.5%) were found in male of age group 20–40 years while high percentage (30.5%) in female by age groups (40–60). A total of 69 bacterial isolates were collected in current study were gram negative bacterial isolate: *Pseudomonas aeruginosa* (14.4%), followed by *Klebsiella spp.*(10.3%), *E.coli* (7.5%) while Gram positive: *Staphylococcus epidermidis* (13.1%), *Staphylococcus aureus* (2.8%), *Streptococcus spp* (1.4%). The patterns of bacterial susceptibility to antibiotic was Ciprofloxacin sensitivity 100% and Ampicillin resistance 100% for all gram positive and Ampicillin and Oxacillin were resistance for all gram negative.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	أحياء مجهرية طبية/ فايروسات	أ.د. أريج عطية حسين	١
عضواً	أحياء مجهرية طبية/ فطريات	أ.د.م. لمى طه	٢

Department of Microbiology

Student name: زهرا علي درويش

Supervisor name: أ.م.د. لمى طه أحمد

Graduation Research Title: Prevalence of dermatophytes fungal infection in Diyala Iraq

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

The present study was designed to determine the prevalence of superficial fungal infections among the patients that were living in different circumstances in Diyala region, Iraq. From July 2018 to February 2019. 218 patients with ages (2-78 years) were surveyed for dermatophyte fungal infections by history and clinical examination. The results revealed that (71.2%) of the patients were infected with skin lesions followed by scalp lesions (16.5%) and nail lesions (14.6%). The prevalence rates of dermatophyte fungal infections were linked to the types of tinea infections, including tinea corporis (17.4%), tinea pedis (13.7%), tinea capitis (16.5%), tinea unguium (14.6%), tinea cruris (17.4%), tinea faciale (3.6%), pityriasis versicolor (19.3%). The proportion of fungal infection in rural area (63.6%) was more preponderant in comparison to urban areas (39.8%) while regarding pityriasis versicolor in urban area (66.6%) was more preponderant in comparison to rural area (33.3%). Furthermore, the rate of percent infection by tinea capitis (66.6%), tinea corporis (60.5%), tinea cruris (57.8%), Pityriasis versicolor (66.6%) were higher in male whereas the percentage of tinea unguium (87.5%) and tinea faciale (62.5%) infections were highest in female. In addition, study demonstrated that indices of tinea infection has been significantly associated with age. This study suggested there has been an exigent need to ameliorate the edification and morel culture values of peoples in addition to increment the economic condition of the society. Keywords: Dermatophytes, fungal infection, living conditions

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
عضوا	أحياء مجهرية جزيئية	م.د. أنفال شاكر متعب	١
عضوا	أحياء مجهرية طبية	م.م. شيماء رحيم حسين	٢
عضوا	أحياء مجهرية	د. عدوية فاضل	٣

Department of Microbiology

Student name: Saja Khamees Sabae

Supervisor name: Lecturer Dr. Anfal Shakir Motib

Graduation Research Title: Antibiotic sensitivity of Streptococcus pneumoniae that isolated from different pneumococcal infections

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

During the period from February June of 2018 to February 2019 (150) isolates of

Streptococcus pneumoniae were isolated from 600 patients with clinical symptoms of Lower respiratory tract infections (LRTI) (pneumonia), otitis media and meningitis obtained from albaquba Hospitals. The results showed that not only S. pneumoniae causes pneumonia and it can causes diseases other than pneumonia such as otitis media and meningitis but with less frequency. S. pneumoniae showed different susceptibilities towards antibiotics used in this study. The total susceptibility (65.8%) was and the total resistance was (34.2%). The highest pneumococcal susceptibility was showed to the cell wall inhibitors (44.4%) followed by protein synthesis inhibitors (28%) and quinolones (17.3%), and the lowest susceptibility was to folate antagonists with 0%. The highest rate of susceptibility was to penicillin (100%), chloramphenicol (86%), vancomycin (80%) and moderate susceptibility to levofloxacin (90) 60%, linezolid (42.7) %, cefotaxime (40%), ofloxacin (40%) whereas there was a relatively lower susceptibility towards others antibiotics with the lowest susceptibility such as ampicillin, imipenem, amoxicillin trimethoprim/sulfamethoxazole. Therefore, it should be avoided in the treatment in addition to tazobactam, amikacin, gentamicin, which had lowest susceptibility against S. pneumoniae. As a result, it required more research to identify new antibiotic or vaccine to reduce the risk of pneumococcal infection.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د.لمى طه	أحياء مجهرية / فطريات طبية	عضوا
٢	م.م.شيماء رحيم حسين	أحياء مجهرية طبية	عضوا
٣	د.عدوية فاضل	أحياء مجهرية	عضوا

Department of Microbiology

Student name: Mustafa Ghadhban Khlaif Al-zwainy

Supervisor name: Assistant prof. Burooj Mohammed Razooqi Al-aajem

Graduation Research Title: CRP levels as a markers in bacterial irritable bowel syndrome

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background:- Irritable bowel syndrome is one of the most common disorders chanced between individuals. Varsity of mechanisms play role in grade inflammation in IBS, from which infectious enteritis, genetic factors, and changes in intestinal

normal flora, CRP level have relation with symptoms severity of (IBS). Aim of the Study:- Estimate elevated CRP levels in irritable bowel patients as compare with healthy individual as a markers for old and new infected Irritable bowel syndrome.

Materials and methods:- The study was conducted on 50 Irritable bowel syndrome patients and 50 healthy control, attended a gastroenterology out patients clinic in Baquba Teaching Hospital, during the period from July 2018 to March 2019 in Baquba city in Iraq, their ages range between (17 -72) years, 27 were female and 23 were male most of them(32) suffering from symptoms of IBS symptoms for more than 8 months, as follow up and others (18)were new patients diagnosed by specialist physician. Questionnaire fall the patients including, Age, gender, level of CRP, bacterial growth, medical history of recurrent IBS .

Results:- Elevated levels of CRP($6 > \text{mg/L}$) in irritable bowel syndrome patients (64%), in healthy control were (26%). Rate IBS with normal level of CRP were (36%). High rate of IBS in female (54%), and (46%) in male. The high rate of IBS in female were in age group (25 -32) in rate (24%).in males ,in age group (33 -40) (18%). The other age groups were approximate. Rate patients suffering from symptoms of IBS for more than 8 months were (78%). Abnormal levels of CRP in old IBS were (28%) in female, and (26%) in male, and in new infection were (2%), (10%) in female and male sequentially. Elevated levels of CRP Abnormal ($6 > \text{mg/L}$) in IBS associated with other infections in rate (40%), and (24%) without other infections.

Conclusions:- Elevated CRP levels in irritable bowel patients as compare with healthy individual consider as a markers for infected Irritable bowel syndrome.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	م.د. أنفال شاكر متعب	أحياء مجهرية جزيئية	عضوا
٢	م.م. شيماء رحيم حسين	أحياء مجهرية طبية	عضوا
٣	د. عدوية فاضل	أحياء مجهرية	عضوا

Department of Microbiology

Student name: Ghaidaa Mudher Abd

Supervisor name: Assistant Professor .Dr.Mohammed Jasim

Graduation Research Title: Immunological Study In Patients Infected With Entamoeba histolytica In Diyala Province

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Diarrheal diseases are common in developed and developing countries and are considered as major causes of morbidity and mortality [1]. The etiologies of diarrhea include viruses, bacteria and parasites [2] *Giardia lamblia* and *Entamoeba histolytica*

are the main intestinal parasitic agents. These species are important and widely prevalent pathogens, causing important public health and medical problems in developing countries [3].

Entamoeba histolytica is the most common form of enteric disease; it is the agent of amoebic dysentery. This parasite not only causes severe diarrhea but can cause abscesses in the intestine, liver, lung and other organs [4,5]. Around 50 million people are infected worldwide while 100 000 die because of annually, and it ranks third on the list of parasitic causes of death worldwide behind malaria and schistosomiasis [6,7].

Entamoeba histolytica is a protozoan that lives in the mucous and sub-mucous layers of the large intestine of man. Rarely it invades brain, spleen, causing ulcers. The disease caused by the parasite is known as Amoebic dysentery [8].

Transmission can occur after ingestion of food and water contaminated with feces containing *E. histolytica* cysts [9-10-11] sexual transmission can also occur [10-12]

The life cycle of the parasite is represented by two forms: the cyst and the trophozoite. The cyst is the infective and non motile form of the parasite. It is excreted in the feces and can survive for weeks in the environment. Mature cysts possess 4 nuclei and average 20 μm in diameter. The trophozoite is the motile form, with a size ranging from 10 to 60 μm . It colonizes the intestinal tract leading mainly to tissue destruction and secretory bloody diarrhea [8].

The life cycle of *E. histolytica* is comparatively simple, intestinal infections occur through the ingestion of a mature quadrinucleate infective cyst in food and / or water contaminated with human fecal material and also by hand to mouth contact. Cysts survive the acidic pH of the stomach and pass into the intestine as the cyst wall is resistant to gastric juice [13]. In the terminal ileum which is alkaline, excystation takes place. Trophozoites being actively motile invade the tissues and eventually implant in the sub mucous layer of the colon. Here they grow and multiply by binary fission. Trophozoites are responsible for producing lesions in amoebiasis. Invasion of blood vessels leads to secondary extra intestinal lesions. Gradually the effect of the parasite on the host is toned down together with concomitant increase in host tolerance, making it difficult for the parasite to continue its life cycle in the trophozoite phase [14]. A certain number of trophozoites come from tissues into the lumen of bowel and are first transformed into pre-cyst forms. Pre-cysts secrete a cyst wall and become a uninucleate cyst. Eventually, mature quadrinucleate cysts form. These are the infective forms. Both mature and immature cysts may be passed in feces. Immature cysts can mature in

external environments and become infective. Cysts remain viable for several days in feces and for at least 8 days in soil at 28-34oC [15].

When cysts are swallowed they cause infections by excysting (releasing the trophozoite stage) in the digestive; infection can be asymptomatic or can lead to amoebic dysentery or amoebic liver abscess. symptoms can include fulminating dysentery, bloody diarrhea, weight loss, fatigue, abdominal pain, and amoeboma. the amoeba can actually 'bore' into the intestinal wall, causing lesions and intestinal symptoms, and it may reach the blood stream. from there, it can reach different vital organs of the human body, usually the liver, cardiac , lungs, brain, spleen, renal, and cutaneous sites. a common outcome of this invasion of tissues is a liver abscess, which can be fatal if untreated[16].

In immune reaction to *E. histolytica* the stomach acid serves as an important first line of defense against enteropathogens through its ability to kill acid-sensitive microorganisms. However, infectious amebic cysts are highly resistant and survive passage through the acidic environment of the stomach. In the intestine, the next layer of innate defense may be the mucus layer, which is thought to act as a protective barrier, preventing *E. histolytica* from invading intestinal epithelial cells (IECs). Mucin, a major constituent of the intestinal mucus layer, is a glycoprotein secreted by goblet cells and submucosal gland. Trophozoite can disrupt the mucus layer and intestinal barrier by secreting cysteine proteases (CPs) and glycosidases to allow for penetration of the colonic mucosa, neutrophils also one of the first immune cells to respond to amebic invasion. Neutrophils activated by interferon- γ (IFN- γ), tumor necrosis factor- α (TNF- α), or lipopolysaccharides (LPS) out amebicidal activity in vitro by releasing reactive oxygen species [17-18].

The present study Aims to fully characterize the effect of *E.histolytica* on the immune factor especially IgE and IgM in different age group and different gender

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.د. أريج عطية حسين	أحياء مجهرية طبية/ فايروسات	رئيساً
٢	أ.د.م. لمى طه	أحياء مجهرية طبية/ فطريات	عضواً
3	م.د. ابتسام يونان	احياء مجهرية	عضوا

Department of Microbiology

Student name: Ayaat Ismail Hussein

Supervisor name: Lect. Dr. Adawia F. Alzubaidi

**Graduation Research Title: Microbial Etiology of Acute Diarrhea in
Children Under Ten Years of Age in Diyala, Iraq Hospital-Based Study**

SUPERVISION CERTIFICATE

**I certify that this thesis was prepared under my
supervision at Department of Pediatrics- Medical
College/ Diyala University**

Abstract

Background: Diarrheal diseases are major problem of developing countries. Though precise data

on childhood mortality associated with diarrheal diseases in Iraq is not available, it has been

estimated that approximately 25% of child death are associated with diarrheal disease, particularly

acute diarrhea.

Objective: The purpose of this study was to detect causative agent of acute diarrhea in children

less than 10 years of age. With the study of sensitivity to certain antibiotics

Patients and Methods: This study was conducted in the Al Batool Teaching Hospital in Diyala

city, from August 2018 to December 2018. In children under 10 years patients suffering from

diarrhea with different gastrointestinal complaints, Stool samples were collected from each patients

use for microscopic examination and Culture and sensitivity test.

Results: Bacterial pathogen infected cases 30 (60%) male and 20(40%) female, among the total

enrolled cases the Escherichia coli was 30(60%), Klebsiella species was 17(34%) and klyuvera

ascorbata species was 3 (6%).also the study detected that bacterial infection was found to be of

highest percentage, 26(52%) in the age group less than 1year, The least infection2 (4%) was found

in group between7-8. There were no detectable cases of bacterial infection among the age group of

9-10 years in this study.Amikacin showed efficacy in 26(96.6%) isolates of E.coli species, also

showed efficacy in 16(94.1%)isolate of Klebsiella spp. Amikacin, cefepime, meropenem, gantamicin

showed efficacy in 3(100%)isolate of Kluyvera ascorbata.

Conclusions: The bacterial pathogens were found to be a significant cause of acute diarrhea. The

most common causative organism for acute diarrhea was E.coli spp, the most effective antibiotic is

Amikacin.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
عضوا	أحياء مجهرية / فطريات طبية	أ.م.د.لمى طه	١
عضوا	أحياء مجهرية	عدوية فاضل	٢
عضوا	أحياء مجهرية طبية	د.م.م.شيماء رحيم حسين	٣

فرع الفلسفة

Student name: Rusul Mohammed Kareem

Supervisor name: Assist Prof. Dr. Mustafa Gheni Taher (Ph. D)

Graduation Research Title: Hypertension and its association with the periodontitis in Diyala hibernate

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Recurrent aphthous stomatitis (RAS) are an inflammatory condition and most the common ulceration of the oral cavity of the patients that make them to ask dental practitioner consultation. most ulcers are associated with pain and heals spontaneously for some days.

Objective: The aims of this study is to calculate the prevalence of this

type of ulcers in diyala governorate among males and females and its association with stress and evaluate the independent issues correlated to this oral mucosal state.

Patients and Methods: A total of 80 patients who attended to the Baquba teaching hospital from April 2016 - April 2017 and fill the required questioner of this study which including age, gender, site, size of ulcer, stressed condition and smoking status in addition to other questions.

Results: The prevalence of RAS was 17.4%, the third decade of life were the most affected age. Males were affected more than females and the tongue were the most affected sites represents (25 %)of the cases. stress was the most causative factors of this lesions.

Conclusion: In diyala governorate, the Aphthus lesion is the main features of stress among males.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيسا	فيزياء طبية حياتية	أ.د. عامر داود مجيد	١
عضوا	أمراض	أ.م.د. مصطفى غني	٢
عضوا	فيزياء طبية	م.م. ابراهيم طارق	٣

فرع الفلسفة

Student name: Hameed Mahmood Shujaa

Supervisor name: Dr Ahmed Khalid Abdullah

Graduation Research Title: IS THERE ANY RELATIONSHIP BETWEEN RENAL STONE RADIO-DENSITY, CHEMICAL COMPOSITION, AND FRAGMENTATION BY EXTRACORPOREAL SHOCKWAVE LITHOTRIPSY

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Objective: To evaluate the relationship between renal stone density in Non Contrast Computed Tomography (NCCT), and stone biochemical composition and success of extracorporeal shockwave lithotripsy (ESWL). Patients and Methods: The study included 50 patients with solitary renal stones ≤ 20 mm size, subjected for ESWL. Pre-ESWL, all patients were evaluated by standard laboratory tests and imaging studies. The stone density value was measured in Hounsfield units (HU) on NCCT. Dornier SII lithotripter was used in all cases.

Patients were followed two weeks after each session of ESWL by plain abdominal X-ray for radio-opaque stone or ultrasound for radio-lucent stone to assess stone fragmentation and clearance. The expelled stone fragment(s) underwent chemical analysis by chemical stone analysis kits. The relationship between stone density, chemical composition and ESWL success were evaluated by using the appropriate statistical tests. **Results:** The Overall renal ESWL success rate was 0.74%. ESWL was effective in 37 of 42 (88.08%) cases with stone density < 1000 HU and 0 of 8 (00.00%) of those with stone density \geq 1000 HU ($p=0.001$). The stones with density values \geq 1000 HU no significantly need energy more than stones with a density values < 1000 HU($p=0.24$), shockwaves and ESWL sessions with density values \geq 1000 HU no significantly density than stones with a density values < 1000 HU($p=0.07, p=0.09$). The most common type of stone detected were calcium oxalate stone (35.0%), followed by uric acid stone (20.0%) and mixed uric acid + calcium oxalate + calcium phosphate stones(17.5%). Calcium oxalate had the highest density values (990.58 ± 150 HU) and uric acid stones had the lowest values (411.11 ± 47). No significant differences were observed in the ESWL rates regarding stone compositions. Conclusions: The use of pre-ESWL NCCT will allow predicting stone composition and fragility and should be considered when making decisions regarding the use of ESWL

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيسا	Biomedical engineering	م.د. أسماء عباس أجود	١
عضوا	Urosergary	م.د. وليد خالد محمد	٢
عضوا	Molecular cytology	م.م. مصطفى عبدالكريم سلمان	٣

فرع الفلسفة

Student name: Yasser A. Mahmood

Supervisor name: PROF . Dr . Amer D. Majeed

Graduation Research Title: The effect of ultrasound waves on MPV of healthy and diabetic patients in vitro study model

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Ultrasound-induced changes in the platelets activity as a result of increased shear stress. Mean platelet volume (MPV) is a good indicator of platelet activation. This study aimed to study the effect of ultrasound (US) on the MPV of healthy subjects and diabetic patients in vitro study model. Venous blood samples obtained from healthy subjects (n=10) and diabetic patients (n=20) were exposed to (US) for 5 minutes and for 10 minutes. The MPV were measured using the Coulter electronic count. The results showed that ultrasound the changes in the MPV are independently related to the exposure time. In healthy subjects, the MPV is increased by 4.2% for 5 min exposure to US while in diabetic patients are increased by 0.76 and 0.87% at 1024 z respectively

after exposure to US for 5 min and 10 min. It concludes that vibration of ultrasound induced an increase of the MPV, and this effect is tended to be less in patients with diabetes indicated that the responses of platelets are reduced in chronic diseases.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيسا	Biomedical engineering	م.د. أسماء عباس أجود	١
عضوا	Medical physics	م.م. ابراهيم طارق	٢
عضوا	Molecular cytology	م.م. مصطفى عبدالكريم سلمان	٣

فرع الفلسفة

Student name: Abdul momeen Adel Abass

Supervisor name: Assistant lecture Ibrahim Tareq Ibrahim

Graduation Research Title: A study of differentiation for the accuracy of measurement blood pressure between mercury sphygmomanometer and oscillometric device (digital).

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Early diagnosis of hypertension is essential for timely management and prevention of its complication. Accuracy of the BP measurement plays a crucial role in curbing the menace of hypertension and to decrease associated morbidity which a matter of great public health concern.¹High blood pressure is ranked as the third most important risk factor of attributable burden of disease in south Asia (2010) and the prevalence for hypertension in India was 29.8%² and, is directly responsible for 57% of all stroke deaths and 24% of all coronary heart disease deaths.³ Therefore, to reduce burden of deaths from coronary heart diseases and other diseases timely diagnosis of hypertension is must which is dependent on accuracy of the BP measurement device. Falsely underestimated or overestimated readings both put the patient to risk. An underestimated reading, the patient is at a risk of hypertension related diseases, which can significantly reduce life expectancy whereas an over estimated reading exposes the

patient to the hazards of treatment of hypertension. Therefore an accurate reading is essential.⁴ There are different invasive and non-invasive methods available to measure blood pressure.⁵ The blood pressure should be measured in both the arms because differences exist and measurement in only one arm may lead to under diagnosis of hypertension.^{6,7} However, the inter-arm blood pressure difference is efficient diagnostic tool for diagnosis of hypertension and disorders related to hypertension.⁸ There are three non-invasive modalities commonly used to check BP throughout the world such as manual mercury sphygmomanometer, aneroid meter and the automated oscillometric device (digital). The manual mercury sphygmomanometer is considered to be the gold standard.⁹ Mercury sphygmomanometers had been used by healthcare professionals over the last 100 years in both hospital and ambulatory settings as a gold standard.¹⁰ But, there is no long-term future for these mercury based devices¹¹ due to potential environmental toxic effects of mercury (Hg).

These devices banned in European countries such as Sweden and Netherlands as well as in the United States.¹²⁻¹³ An approach is necessary to identify the alternative device which is easier and competent in measuring BP. No mercury sphygmomanometers like aneroid and more recently, digital ones have replaced the use of traditional mercury instruments in many settings. This device translates arterial pressure into oscillometric wave and with

System built algorithm display readings.¹⁰ Oscillometric devices are gaining fame since these devices are considered environmentally safe and have a significant

Advantage over their manual counterparts (mercury or aneroid) and they don't require a trained professional to measure BP. Among the various advantages of the available replacements of mercury devices, aneroid instrument has the portability¹⁴, while that of digital instruments are ease of use and they obviate the need of auscultation skill of the examiner.¹⁵ Thus these devices are recommended and used in various population surveys of BP recording.¹⁶ Moreover they are also useful for ambulatory BP recordings and for monitoring blood pressure at home,¹⁷ to add further they are free from the bias of white coat hypertension thus give more accurate readings.^{18,19}

Keeping the above in mind the present study was performed to identify the accuracy of automated oscillometric (digital) measuring devices of measuring blood pressure as compared to mercury sphygmomanometer (manual) and the limit of agreement between the two devices.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيسا	Biomedical physics	أ.د. عامر داود	١
عضوا	Biomedical engineering	م.د. أسماء عباس أجود	٢
عضوا	Molecular cytology	م.م. مصطفى عبدالكريم سلمان	٣

Student name: Ansam Atwan ABDALLAH

Supervisor name: Asst. literature Mustafa Abdulkareem SALMAN

Graduation Research Title: STUDY OF MEAN PLATELET VOLUM WHEN EXPOSED TO ULTRASOUND WAVES FOR HYPERTENSION PATIENTS

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Vibration-induced changes in the platelets activity as a result of increased shear stress. Mean platelet volume (MPV) is a good indicator of platelet activation. This study aimed to investigate the effect of ultrasound on the MPV of healthy subjects and hypertensive patients, in vitro study model. Venous blood samples obtained from healthy subjects (n=10) and hypertensive (n=20) have been exposed to ultrasound waves for 5 minutes and 10 minutes. The MPV was measured using the Coulter electronic count (Complete blood Count). The results showed that ultrasound waves did induce changes MPV in healthy subjects and hypertensive patients. The changes in the MPV are dependently related to the exposure time. In healthy subjects, the MPVs have been significantly increased by 12.6% for 10-min exposure while in hypertensive are significantly decreased by 9.1% for 10-min. It concludes that ultrasound induced an increase of the MPV, and this effect is tended to be less in patients with hypertension indicated that the responses of platelets are reduced in chronic diseases.

It is clearly indication that the cellular response of MPVs in hypertension patients were very weak may because of hypertension. Whereas, MPVs response of healthy subject remained normal and effective

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيسا	Biomedical physics	أ.د. عامر داود	١
عضوا	Biomedical engineering	م.د. أسماء عباس أجود	٢
عضوا	فيزياء طبية	م.د. أحمد خالد	٣

فرع الفسلجة

Student name: Aya Ali Jaffar

Supervisor name: Prof.Dr.suad MuslehAl-deen AbdAl-majid

Graduation Research Title: Assessment of morning blood pressure among cell-phone addiction students and medical staff

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

The purpose of this study to find whether hypertension is caused by cell-phone radiation or not. This cross sectional study was done in Al-Batool teaching hospital and Baqubah teaching hospital from 1-9-2018 to 1-2-2019 . The study include 200 cases of medical staff and students who work in or admit to hospital. Which they are chosen randomly in dependent of age or sex .The material in this study was a questionnaire and sphygmomanometer and stethoscope to achieve our purpose. The result was that no significant relationship between hypertension and the age, no significant relationship between hypertension and the sex,there is association between the hypertension and the type of cell phone use ,it seem to be high in smart more than the custom one, and there is association between the sign and symptoms of addiction with the type of cell phone use it seem to be high in the smart than the custom one thus we found that the is association between hypertension and cell phone usage .

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيسا	أمراض	أ.م.د.مصطفى غني	١
عضوا	Medical physics	م.م.ابراهيم طارق	٢
عضوا	Molecular cytology	م.م.مصطفى عبدالكريم سلمان	٣

فرع الفلسفة

Student name: Enas Ali Jassim

Supervisor name: assit.prof .Dr.Mustafa Ghani Taher

Graduation Research Title: Diabetes Mellitus

and its association with periodontitis in Diyala gove

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: The association between diabetes mellitus and periodontal disease has been studied in the last years, and several studies conclude that diabetes mellitus is a risk factor for the development of gingivitis and/or periodontitis.

Objective: The aims of this study is to evaluate the prevalence of periodontitis in Diyala governorate among diabetic patients.

Patients and Methods: A total of 149 patients who attended to the Baquba teaching hospital from October 2018 to January 2019 and suffering from diabetes, oral examination done to them and record the periodontal condition, age, gender and site were recorded.

Results: The prevalence of periodontitis in diabetic patients was high 90.1 % cases the 6th decade of life were the most affected age. Females were affected more than males and the lingual site were the most affected sites.

Conclusion: In Diyala governorate, diabetes is the main causes of periodontitis in different degree.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيسا	فيزياء طبية حيائية	أ.د. عامر داود مجيد	١
عضوا	طبيبة بيطرية	م.ميساء غني	٢
عضوا	فيزياء طبية	م.م. ابراهيم طارق	٣

فرع طب الأسرة والمجتمع

Student name: Ahmed Ibrahim Kadhim

Supervisor name: Professor Dr.Salwa Shalash Abdul-Wahi

Graduation Research Title: Knowledge Assessment of Newly Graduated Doctors Regarding Medical Education Methods in Their Colleges and Certain Essential Medical Skills in Diyala Teaching Hospitals

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Medical professional proficiency comprises a set of skills, knowledge, and attitudes necessary to efficiently accomplish the practice of medicine.

1

The major aim of undergraduate medical education in the region is to produce doctors who are competent and able to meet the health needs of the community while also being capable of continuing medical education.

Aim of the study: This study aimed to assess knowledge of newly graduated doctors regarding current medical educational method in their Colleges and certain medical skills at Diyala Teaching hospitals and to assess Seniors opinions about knowledge, skills and behaviour of the studied Juniors.

Subjects & Methods: A cross-sectional study was conducted in Baquba and Al-batul teaching hospitals. These two hospitals situated in Baquba City which is the center of Diyala province. Junior's doctors with work experience of six months to one year were eligible to participate in this study.

Results: A total of 46 junior doctors participated in the study. Most respondents were females

(69.56%), regarding the age (58.69%) were 25–26 years of age, living in Diyala city (73.91%) and (78.26%) of them are graduated from Diyala medical College. About (89.13%) of graduated doctors stated that they graduated from medical college of traditional curriculum. The results also showed that about (50%) of newly doctors disagreed that the current medical educational method in their colleges is suitable for preparing a future efficient doctor. On the other hand (50%) of them agreed. The results revealed that 71% to more than 80% were always competent in performing common procedures such as IM injection, ensuring IV fluids, diagnosis of diabetic ketoacidosis and dealing with chest discomforts. Sixty per cent of the graduates claimed to be always competent in dealing with pulmonary oedema. Regarding seniors' opinion about juniors' knowledge, skills 7 behaviour the results displayed that about 50% to 54% of them agreed somewhat to the knowledge and skills of juniors and none of them strongly agreed, in the other hand 45% of them agreed to juniors' behaviour.

Conclusions & Recommendations: the study concluded that there is some disagreement of current traditional curriculum versus other integrated system and recommend enhancement of interactive sessions and other interactive strategy in medical education them.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.د. ناظم غزال نعمان	دكتوراه طب مجتمع	رئيساً
٢	أ.د. شهاب أحمد شاكر	بورده طب بيئي	عضواً
٣	أ.د. سلوى شلش	دكتوراه طب مجتمع	عضواً

فرع طب الأسرة والمجتمع

Student name: Sami Talib Ibraheem

Supervisor name: أ.د. شهاب أحمد شاكر

Graduation Research Title: Epidemiology of Scabies in Baqubah City,
Diyala Province, Iraq

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

- **Background:** Scabies is one of the most important skin diseases world wide particularly in developing countries, caused by mite *Sarcoptes scabies*. The burden of scabies is highest in tropical countries, but recent data from Iraq are scanty.

- **AIM of study :-** TO determine the prevalence of scabies in Baqubah city .

- **Patients and method :** Across section study was conducted done in B.T.H /out patients clinic between 1st/octo 2018 to 31March 2019. A total of 200 patients presenting.

which infected with scabies were included in this study age ranges between <20 to >70 year old in lived in urban and rural areas

-**Results:** During the study period, (200) patients with scabies were identified. The prevalence was 60% in males and 40% in females. About 10% of cases were younger than 45 years. The treatment of scabies cases with 5% permethrin cream resulted in a cure rate of 80.3% following a single application, and was increased to 95.5% after a second application. Cure was achieved in all cases after a third application.

-**Conclusions:-** We concluded that there is a high prevalence of scabies infection in Baquba City, and males were more frequently affected than females, with high prevalence in adulthood than young and older age group.

Recommendations:-

- 1- Make sure to wash the clothes of the injured independently of other
- 2- Take care to wash the bed covers and clothes that were used within 3 days before treatment in the washing machine and rinsed with hot water and dried in high grades

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.د. سلوى شلش	دكتوراه طب مجتمع	رئيساً
٢	أ.د. ناظم غزال	دكتوراه طب مجتمع	عضواً
٣	أ.د. شهاب احمد	بورده طب بيئي	عضواً

فرع طب الأسرة والمجتمع

Student name: Nael yaseen Hussein

Supervisor name: Prof.Dr. Nadhim Ghazal Noaman

Graduation Research Title: Knowledge of Mothers about Vaccine in Albatool

Teaching Hospital of Diyala Governorate in 2018-2019

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Immunization has shown a major preventive aspects of infectious diseases, disability and death.

Objectives: Assessing the Knowledge of mothers to the immunization programs for children in Iraq.

Patient and Methods: It is a cross sectional survey study in albatool teaching hospital in 2018-2019 ,that was carried among 145 different mothers ,24 samples was 20 years old and younger ,78 was from 21 to 30 years old ,37 was from 31 to 40 years old and 6 women was older than 40 years , illiterate was 50 samples ,primary was 60 , secondary was 22 and college was 13 .

Results: The included parents have shown a high level of awareness about vaccination regarding the preventive measures and importance of vaccination which resulted in the illiterate they take vaccine was 39 (78%) of all illiterate in study , the primary was 54 (90%) of all primary ,the secondary was 21(95%) of all secondary ,the college was 12(92%) of all college , so the total number of women in study who taken vaccine was 126 (86.8%) of all women in this study .

All women (100%) in study know the vaccines are major preventive aspect of infectious disease ,disability and death .

The women give T.B vaccine to their child was 133 (91.7%) , while in OPV was 137 (94.5%) .

All women (100%) don't know what is Rota virus and Rota vaccine .Women know which vaccine taken in pregnancy was Illiterate 17 women (34%) , primary was 34 (56%) , secondary was 14 (63%) , college 8 (61%) , totally 73 (50%) Of women know which vaccine taken in pregnancy .

92.4% of women know specific temporary contraindication of vaccines , 7.6% not .94.5% of women know specific adverse effect of vaccine , 5.5% not .

Conclusion: Most of women have good knowledge about vaccine but Educational

programs are needed among parents as support to improve knowledge about vaccination and immunization coverage.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.د. شهاب احمد	بورد طب مهني وبيئي	رئيساً
٢	أ.د. ناظم غزال	دكتوراه طب مجتمع	عضواً
٣	أ.د. سلوى شلش	دكتوراه طب مجتمع	عضواً

فرع النسائية

Student name: Rusul Salem Marsool

Supervisor name: Dr. Raakad kamel saadi

Graduation Research Title: Lipid Profile Changes in Pregnant Women with Pre- eclampsia and Normal Pregnancy

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: According to the current knowledge, changes in lipid profile in pregnancy is a major contributor in the pathogenesis of pre-eclampsia. The present study was designed to compare the changes in lipid profile in normal pregnancy and patient with pre-eclampsia.

Objective: Assessment the relationship between lipid profile changes in women with pre-eclampsia in comparison to normal pregnancy.

Patients and Methods: It was a Case control study study was carried out in the department of obstetric and gynecology at Albatol Teaching Hospital during

July 2018 to March 2019. Total 100 pregnant women were evaluated 50 normotensive pregnant women and 50 diagnosed pre-eclampsia. We evaluated

serum level of total cholesterol, low density lipoprotein and high density lipoprotein cholesterol and triglyceride in women with pre-eclampsia and those of women with normal pregnancies

Results: The pre-eclampsia was associated with a significant rise in triglyceride

(3.19 ± 1.21 VS 2.64 ± 0.87) compared with normal pregnancy and rise in LDL

cholesterol (3.04 ± 1.5 VS 2.44 ± 1.07). Other measured serum lipids did not differ significantly in both groups.

Conclusion: This study show the women who develop pre-eclampsia had disturbed lipid profile due to abnormal lipid metabolism.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	بورد نسائية وتوليد	أ.م.د. علي حسن محمد	١
عضواً	بورد نسائية وتوليد	أ.م.د. أيناك جليل	٢
عضوا	بورد نسائية وتوليد	أ.د. بسمة حميد	٣

فرع النسائية

Student name: Doaa abd ali

Supervisor name: Assist prof.Dr. Enas Jaleel

Graduation Research Title: Placental weight in pregnancy with high or low hemoglobin concentration

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Objective: to assess the relationship of maternal hemoglobin concentration with placental weight.

Material & Method: from July 1st, 2018 to December 31, 2018 , placenta were obtained from (70) normal Pregnancy. We compared mean placental weight and placental to birth weight ratio Regarding to hemoglobin concentration of mother: < 9 g/dl, 9_13.5 g/dl or > 13.5 g/dl.

Results: In pregnancies with maternal hemoglobin concentrations <9 g/dl , mean placental weight was 664.36 (98.28), followed by 595.45 (100.75) for hemoglobin concentrations 9_13.5 g/dl and 556.88(SD 65.34) for hemoglobin concentrations >13.5 g/dl (ANOVA, p<0.001).

Conclusions: Placental weight decreased with increasing maternal hemoglobin concentrations. The high placental to birthweight ratio with low maternal hemoglobin concentrations suggests differences in placental growth relative to fetal growth across maternal hemoglobin concentrations.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د. علي حسن محمد	بورد نسائية وتوليد	رئيساً
٢	أ.م.د. أنعام فيصل	بورد نسائية وتوليد	عضواً

فرع النسائية

Student name: Muqdad Abdulameer Younis

Supervisor name: Dr. Inaam Faisal

Graduation Research Title: Prevalence of Causes of Primary Caesarean Section Operation which did in AlBatool Teaching Hospital

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background : Caesarean section is surgery to deliver a baby through the mother's abdomen , may be is emergency or elective procedure according to state of mother and her fetus. The increase in the prevalence of cesarean section (C-section) in recent decades has become a public health problem worldwide. Studies of cesarean section in order to identify the causes and form policies and interventions to reduce the incidence of this health problem are necessary . It is called "Primary Cesarean section" when it is performed for the first time on a pregnant woman.

Objective : to evaluate the causes of primary C-section in in Al-batool teaching hospital , Diyala , Iraq.

Patient & Method :

A descriptive cross-sectional study was done in Al-batool teaching hospital in Diyala during the period from 24th of September 2018 till 3rd of January 2019 . Hundred primary caesarean section were included in our study .

Result :

A total of 100 cases were selected for the study during the period from 24th of September 2018 till 3rd of January 2019 .

Failure to progress in labour (31 %) and malpresentation (21%) are main causes of primary C.S . the most age groups are 20-29 years old in our study .

Conclusion :

The most common cause is failure to progress in labour and the most operations were carried on primigravida . As age increased , prevalence of primary C.S decreased .

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د.علي حسن محمد	بورد نسائية وتوليد	رئيساً
٢	أ.م.د.أنعام فيصل	بورد نسائية وتوليد	عضواً
٣	أ.د.بسمة حميد	بورد نسائية وتوليد	عضوا

فرع الجراحة

Student name: Shahad Ali

**Supervisor name: Prof. Dr.AbdulrazakShafiq HasanPh.D. Med.
Microbiology**

**Graduation Research Title: Associated risk factors of tinnitus among
randomly selected people in Baquba city**

SUPERVISION CERTIFICATE

**I certify that this thesis was prepared under my
supervision at Department of Pediatrics- Medical
College/ Diyala University**

Abstract

Background: This study was come out as partial requirement of graduation in Medical College. It was conducted to explore the association of tinnitus with certain risk factors. It lasts about 8 months (July 2018 to March 2019). 200 subjects were included who were allocated from Baquba Teaching Hospital. A special questionnaire form was specially design for this purpose and filled by the aid of participant with short interview during which a verbal consent was obtained.

Subject and methods: The study was conducted on 200 subjects with tinnitus who were selected randomly from those attended Baquba Teaching Hospital- Outpatient Consolatory Clinic as well as certain private clinics in Diyala province over a period of 8 months (July 2018 to March 2019). They were consisting of 125 females, and 75 males, their ages ranged between 15-85 years.

A special questionnaire form was preconstructed that includes certain socio-demographic and risk factors and was filled for each subject through short interview during which a verbal consent was obtained. The collected data were classified on Microsoft-Excel file and statistical analysis was sought. The significance of difference was tested using Pearson Chi-square test (χ^2 -test) with P value was equal or less than 0.05.

Results: The results revealed that there was no significant difference between male and female subjects gender ($p = 0.420$), site of tinnitus ($p= 0.77$), type of tinnitus ($p= 0.78$), as well as the continuity of tinnitus ($p = 0.44$). However, tinnitus was significantly associated with the duration ($P= 0.037$).

Regarding the risk factors, there was negative significant association of tinnitus with vertigo ($p= 0.023$), with smoking ($p= 0.0001$), as well as with otitis media ($p= 0.079$). Otherwise, the effect of other risk factors namely the hypertension and the family history were insignificant ($p= 0.103$ and $p= 0.179$) respectively.

Conclusion: It can be concluded that although tinnitus is marginally associated with certain risk factors, it is common in the community. Future studies covering other risk factors are recommended.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	انف واذن وحنجرة	م.م.قيس جعفر	١
عضواً	انف واذن وحنجرة	م.د.دريد حميد	٢
مشرفاً		أ.م.د.عبدالرزاق شفيق	٣

فرع الجراحة

Student name: Baraa Ahmed Abdulsalam

Supervisor name: Dr. Muqdad Fuad Abdlukareem

Graduation Research Title: The Rate of Appendicular Perforation in Relation to the Obtained Alvarado Score

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Acute appendicitis is considered the commonest indication for urgent abdominal operations. The relationship between the time last and the disease progression is the usual pathophysiological model of the disease. The risk of perforation raise as the time elapses between the onset of the disease and the treatment. Alvarado scoring system is the main one applied worldwide for a patients suspected of having acute appendicitis. It has the advantage of diagnosing acute appendicitis and can also predict patients with perforated one. **Objective:** This study aims to identify the rate of perforated appendicitis in relation to Alvarado score obtained. **Patients and methods:** A cross sectional study of one hundred patients presented with features of acute appendicitis was conducted at Baquba Teaching Hospital, the Department of General Surgery, over a period of three months (20th August 2018 _ 20th November 2018).Alvarado Scoring System applied for all patients presented with features of acute appendicitis. The rate of appendicular perforation calculated. A correlation between the score obtained and the rate of perforated appendicitis was done. **Results:** The most frequent score obtained in patients with perforated appendicitis was 9-10 (70.58%), while it was the least frequent one in patients with non-perforated appendicitis (6.03%). **Conclusion** A high Alvarado score correlates well with the rate of perforated appendicitis and a score of (9-10) should be considered enough to suspect perforated appendicitis which in turn affect the decision for the timing of surgery and the type of incision to be performed.

Key words: Alvarado score, Acute appendicitis

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د. محمد محمود حبش	طب وجراحة عامة	رئيساً
٢	م.د. احمد مظهر	طب وجراحة عامة	عضواً
٣	أ.م.د.مقداد فؤاد	طب وجراحة عامة	مشرفاً

فرع الجراحة

Student name: جعفر ضياء خضير

Supervisor name: م.م. قيس جعفر خاف

Graduation Research Title: otorhinologica manifestation in the adenoid patients

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background and objectives: Adenoid hypertrophy is most common cause of nasal obstruction and Eustachian tube dysfunction that lead to otological manifestation such as Otitis media with effusion, conductive deafness and chronic otitis media, and nasal manifestation such as snoring, acute sinusitis and headache. The adenoid is a part of Waldeyer's ring; its basic function is thought to be antibody production.

The aim: is to identify the incidence of otological manifestation (Otitis media with effusion, conductive deafness and chronic otitis media) and nasal manifestation (snoring and acute sinusitis) with adenoid hypertrophy.

Methods: Study was conducted in wards of the Department of Otolaryngology on Head Neck Surgery at Baqubah teaching hospital during the periods of November 2018 to February 2019. 150 patients with enlarged adenoid were included in this study. The assessment of the patients was established on the basic of clinical history, and audiological examination was done. Data were collected and analyzed.

Results: Among 150 patients age range from (3-14) years old with adenoid hypertrophy, 105 patients (70%) have conductive deafness, 102 (68%) have sinusitis, 96 patients (64%) had OME, 65 (43.3) have snoring and, 33 (22%) had chronic otitis media. Mean age was 8.5 years. Most common age group was (5-7) years (39) (37.5%).

Conclusion: Adenoid Hypertrophy (AH) can be relevant in the pathogenesis of otitis media with effusion (OME) due to its anatomic position. Also adenoid hypertrophy associated with snoring, acute sinusitis and conductive hearing loss in children.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	م.د. احمد مضهر	طب وجراحة عامة	رئيساً
٢	م.د. ضياء محمد	طب وجراحة عامة	عضواً
٣	م.م. قيس جعفر	طب وجراحة عامة	مشرفاً

فرع الجراحة

Student name: Mohammed loay

Supervisor name: Dr. QaysJafferKhalaf

**Graduation Research Title: Prevalence of Foreign Bodies in the Ear,
Nose and Throat in ENT Department , BaqubahTeaching Hospital , Diyala**

SUPERVISION CERTIFICATE

**I certify that this thesis was prepared under my
supervision at Department of Pediatrics- Medical
College/ Diyala University**

Abstract

Background: A foreign body of ENT is an object which lodges into a craniofacial orifice which includes the ear, nose, or throat.

Aim :Prevalence of Foreign Bodies in the Ear, Nose and Throat

Method: This cross-sectional study was conducted on 100 patients who presented with complaint of foreign body insertion / impaction.

Results: These cases comprised of 64 (64%) males &36 (36%) females having male: female ratio= 1.77: 1. Out of all patients 56 (56%) presented with ear foreign bodies, 33 patients (33%) presented with nasal cavity foreign bodies, 11 patients (11%) presented with throat (oropharyngeal / hypopharyngeal) foreign bodies. General anesthesia was required in 8 cases (8%).Most of foreign bodies were removed by house officers under supervision by Consultants.

Conclusion: Foreign bodies remain a major concern in ENT practice .Majority of children were children

Key Words: Foreign bodies, Ear, Nose, Throat

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	د.وليد خالد	طب وجراحة عامة	رئيساً
٢	م.د.دريد حميد	طب وجراحة عامة	عضواً
٣	م.م.قيس جعفر	طب وجراحة عامة	مشرفاً

فرع الجراحة

Student name: Ahmed Hassan Yassin

Supervisor name: Dr. Duraid H. Abid Alkadem

Graduation Research Title: Effect of Chronic Rhinosinusitis on arterial hypertension in Baqubah teaching hospital

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Sinusitis: is inflammation of the sinus or nasal passage. Chronic rhinosinusitis is chronic inflammation of the sinus or nasal passages occurring for more than 12 weeks at a time.

[1][2]

Chronic rhinosinusitis is multifactorial in nature and can include infectious, inflammatory, or structural factors. Thus, other etiologies such as allergic rhinitis (dust mites, molds), exposures (airborne irritants, cigarette smoke or other toxins), structural causes (nasal polyps, deviated nasal septum), ciliary dysfunction, immune deficiencies, and fungal infections should be considered. . [3][4]

There are four paired sinus cavities: the ethmoid, sphenoid, frontal, and maxillary sinus cavities. These paired cavities allow air to be filtered during inhalation. For the antigens to be filtered and expelled, sinuses need to drain. Chronic inflammation can cause obstruction to the nasal passage, hinder drainage, and lead to lower oxygen tension. This creates foci for bacteria to build up. Ciliary dysfunction or structural abnormalities can further exacerbate this process.[5]

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د.مقداد فؤاد	طب وجراحة عامة	رئيساً
٢	م.م.قيس جعفر	طب وجراحة عامة	عضواً
٣	م.د.دريد حميد	طب وجراحة عامة	مشرفاً

فرع الجراحة

Student name: Zainab kanaan Hassan

Supervisor name: Dr . Dheyaa Mohammed Abdul-wahab

Graduation Research Title: Early post-operative infection following Surgical orthopedic Procedure, incidence and Risk Factors assessment

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background:- the incidence of postoperative infection in general hospitals is 3-5% .predisposing factors are debility, chronic disease ,previous infection, corticosteroid therapy ,difficult or long operation, hematoma formation, wound tension and tight dressing or plasters, there is also an increased risk with the use of foreign material s such as metal implants and acrylic cement. Patient dependent factors include nutritional status and immuno logical status. seorgon dependent factors include skin preparation, operative rom enviroment and prophylactic therapy.

Aim of the study

To identify and avoid the risk factors of post operation infction .

Method

It is retrospective type study.

Conclusion

Our study conclude that the most risk factors are smoking, chronic used of medication, D.M and cardiovascular diseases which are preventable

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	طب وجراحة عامة	د.عمار نجم	١
عضواً	طب وجراحة عامة	أ.م.د.مقداد فؤاد	٢
مشرفاً	طب وجراحة عامة	د.ضياء محمد	٣

فرع الجراحة

Student name: Hussein Ammar Mahdi

Supervisor name: Dr. QaysJafferKhalaf

Graduation Research Title: Evaluation of hearing loss & tinnitus in patients with type 2 diabetes mellitus

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

❖ **Background:** This study had been undertaken to show the relationship between diabetes mellitus and hearing loss with tinnitus quite debated for many years...

Diabetes mellitus has been a cause of many a health ailment. The relationships between 8 Cranial nerve neuropathy , inner ear manifestations , hearing loss (HL), and tinnitus as well as diabetes are not established.

❖ **Objective:** To assess prevalence of SNHL and tinnitus among diabetic patients in baquba city

❖ **Methods:** ... patients were categorized according to their age, gender, chronicity of diabetes mellitus , related complications (hypertension, nephropathy and retinopathy) and modalities of diabetic treatment taken by patients. Detailed examinations of their ears with an otoscope and the tuning fork test, including the pure tone audiometry were done in a sound proof room at frequencies of 500- 8000 Hz

The design of this study was hospital based observational cross sectional study carried out from august 2018 to January 2019. Institutional ethics committee approval was taken for the study as a part of under-graduation dissertation.

❖ **Keyword :** Type 2 diabetes mellitus, sensorineural hearing loss, tinnitus , tuning fork, pure tone audiometry.

❖ **Results:** Ear manifestations were found among 100 diabetes patients: HL in 52 cases (52%) and tinnitus in 32 cases (32%) . duration and long term diabetic control had a significant effect on the hearing threshold of the subjects and tinnitus need more study

❖ **Conclusion:** SNHL and tinnitus were better controlled by intake of insulin than oral hypoglycemic agents and diet regulation. Bad control DM need routinely visit to E.N.T clinic to assist the SNHL and another ear manifestations.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د.مقداد فؤاد	طب وجراحة عامة	رئيساً
٢	د.دريد حميد	طب وجراحة عامة	عضواً
٣	م.م.قيس جعفر	طب وجراحة عامة	مشرفاً

فرع الجراحة

Student name: Ali Mohammed Majeed

Supervisor name: Dr. Ammar Najim MBChB, MSc Ortho

Graduation Research Title: Compartment Syndrome Associated with Tibial Fracture in Different Age Group Admitted to Baqubah Teaching Hospital in Diyala

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background

Acute compartment syndrome is a potentially serious complication following a tibial fracture, occurs when the tissue pressure within a given compartment exceed the perfusion pressure of the arterial supply resulting in ischemia to the muscles and nerves of the compartment

Methods

Prospective study done at Baqubah teaching hospital. From the first of august 2018 – first of march 2019, patient taken as different age group presented to the surgery rooms and emergency unit of this hospital with accidents of multiple mechanisms and different presentation as pain, shock, bleeding, vomiting & loss of function. A questionnaire was prepared to collect information about the incidence of compartment syndrome in patients of tibial fracture regarding the following variables: age, sex, past medical history, signs of compartment syndrome, diagnosis of compartment by clinical findings & Doppler, treatment of compartment S. by medications (paracetamol, NSAID), reduction with external fixation & fasciotomy, and finally the outcome of patients with compartment as full recovery or complicated by secondary infection, deformity and death. All forms were filled by asking the patients after taking consent from them and they were very cooperative. In this study we exclude the patients that already discharged from the hospital on their responsibility. It is interesting that we had advised the patients about the severity of compartment especially in chronic medical diseases as DM, hypertension and immunocompromised patients and how to make prophylaxis to avoid severe accidents, regulate blood sugar in diabetic patient and early attendance to the hospital.

Aim of the study

This study was conducted to perform a comprehensive review of compartment syndrome discussing etiologies, risk stratification, clinical progression, noninvasive and invasive monitoring, documentation, medical-legal implication, and our step-by-step approach to compartment syndrome prevention, detection, and early intervention.

Expected result

A total of 160 patients with tibial fracture, who satisfied the inclusion criteria, were enrolled in this study there were 20 patients of them with compartment syndrome, excluded the patients that already discharged from the hospital on their responsibility, regarding to the age group and gender distribution these include 128 (80%) males with most of patients were in young age group (16 – 35) , we found that compartment S. mostly occur in young and old male & it is interesting that there are no cases of compartment S. in toddler male and female of all age groups in this study. About the type of tibial fracture associated with compartment S. it was mostly of comminuted type 12 (7.5%) and the second one was for transverse 8 (5%). Regarding to compartment syndrome frequency occurring after tibial fracture were 20 (12.5%). Regarding to frequency in compartment syndrome to patients with chronic medical diseases, it was 12 (60%) for hypertensive patients & 4 (20%) for diabetics. The diagnosis of compartment S. primarily made by clinical findings on the patients, so the most frequent signs was for pain & paresthesia as the percentage of them was 100%, the second one was for pallor 60%, paralysis 40% and it is interesting that the percentage of pulseless was zero%. When we ask about the methods of diagnosis, the most frequent one was by clinical diagnosis as the percentage was 85%, this indicate that the clinical diagnosis is so important and we should be focusing on it. Regarding the most frequent treatment and early preventive way of complication was for surgery (fasciotomy) 85%; and finally when we did a follow up to the patients with compartment syndrome for a duration of 2 weeks most of them were full recovered (75%), deformity and secondary infection were (10 &15) respectively. It is interesting that there are no cases that need amputation during the follow up.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د. محمد محمود	طب وجراحة عامة	رئيساً
٢	م.م. قيس جعفر	طب وجراحة عامة	عضواً
٣	د. عمار نجم	طب وجراحة عامة	مشرفاً

فرع الجراحة

Student name: Hiba Qassim Mohammed

Supervisor name: Dr.Ahmed Modher Khalaf

Graduation Research Title: Causes of Acute Abdomen in Baqubah Teaching Hospital

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background

Abdominal pain is one of the most common reasons for an emergency department (ED) visit, accounting to about 5% to 10% of all ED visits. It poses a diagnostic challenge for the emergency physicians as the causes are numerous, ranging from benign to life-threatening conditions. Despite extensive evaluation, a quarter of patients usually remained with a non-specific cause but now with latest radiological imaging advances that number has decreased. Pain is now recognized as the

fifth vital sign, along with blood pressure, pulse, respiratory rate, and temperature. As a vital sign, it allows physicians to monitor changes in a patient's condition and better evaluate the clinical picture. However, the best way to manage acute pain in the ED remains controversial.

Material and methods

Review of 100 cases of acute abdomen in Baquba teaching hospital. To make a review of the causes in age and sex distribution, incidence and management of acute abdominal condition from 15th of August 2018 to 15th of Feb. 2019.

Results

From 31 to 40 years of age, 13 total cases were reported, out of which 6 were acute appendicitis, one of them was perforated, 3 were acute cholecystitis, and 1 each for perforated duodenal ulcer, trauma (jejunal perforation), acute intestinal obstruction and rupture of splenic abscess. Out of 100 cases of acute abdomen 53 were caused by acute appendicitis and hence it forms the major reason among the causes of acute abdomen, followed by acute cholecystitis which represented 21 cases of them. Sex distributions of acute abdomen out of 21 cases of acute cholecystitis 16 had been presented in females. According to their diagnosis out of 100 cases 74 cases of them managed surgically, while 26 had been managed conservatively.

Key word

Acute abdomen, Emergency surgery.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د. محمد محمود	طب وجراحة عامة	رئيساً
٢	أ.م.د. مقداد فؤاد	طب وجراحة عامة	عضواً
٣	د. أحمد مضهر	طب وجراحة عامة	مشرفاً

فرع الباطنية

Student name: Mohaimen Adnan Ali

Supervisor name: Assistant Professor Ali Musa Jaafer

Graduation Research Title: Electrolyte Disturbance among Hypertensive Patient In Baquba teaching hospital , Diyala , Iraq

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

A case – control study was done in Ba'quba Teaching hospital , Diyala , Iraq during the period of 16th of september 2018 – 3rd of January 2019 on a patient whom admitted to the 3rd floor of Ba'quba Teaching hospital .

A one hundred primary person were included in our study , Eighty one were the cases who have hypertension (55 female and 25 male) compared to a twenty healthy person" Control" (11 female and 10 male) who were free of Hypertension , Diabetes , Renal failure , Addison disease , Gastro-enteritis , and Legionnaires' disease .

- A questionnaire was given to the patient that contain the demographic features of patient (name , age , sex , ethnic group and address) , history about his chronic medical illness and complications (Ischemic heart disease , Hyperlipidemia , Diabetes ,

- Retinopathy , Nephropathy and Peripheral nerve disease) and a history of a current drug use .
- A blood sample was collected and prepared to investigation for (Sodium , Potassium, Chloride , Calcium , Phosphorus , Urea , Creatinine , Random Blood Sugar and HBA1c) by ?????? device in Ba'quba Teaching Hospital Center Labs then stored in deep freeze (- 80 C°) then send to investigation for Magnesium in a privet Lab .

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د. أحمد مدب	باطنية	رئيساً
٢	م.د. وسام فالح	جملة عصبية	عضواً
٣	أ.م.د. علي موسى جعفر	باطنية	مشرفاً

فرع الباطنية

Student name: أحمد محمد مهدي

Supervisor name: أ.د. عادل حسن محمد

Graduation Research Title: Healthy Medical students carry more virulent microorganisms at their throat than that of general population

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: In humans the normal flora of throat is very complex and include of several species of bacteria, Which can be changed by many factors. The study aims to detect the normal flora in the throat of people who are in contact with patients in hospitals.

Methods: Samples were collected from students of the fifth stage / Faculty of Medicine - University of Diyala. Who were in contact with patients in hospital. Sterils transport medium swab was used for collection of samples and later taken to the laboratory for diagnosis.and the results obtained were compared with control group.

Results: In the study samples, there was a significant change in the normal flora of the throat between the healthy Students and the control group as well as between males and females in the healthy students in this study.

Conclusion: Our finding suggest that normal flora may change as a result of infection and contact with the patient and his secretions or by reduce the body's immune defenses.

Keywords: Normal flora in throat, Hospital infection.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	باطنية	أ.م.د. أحمد مدب	١
عضواً	جملة عصبية	م.د. وسام فالح	٢
مشرفاً	باطنية	أ.د. عادل حسن	٣

فرع الباطنية

Student name: Rafal nihad shiaa

Supervisor name: Ismael ibraheem latif Phd. Clinical immunology

Graduation Research Title: Incidence of Cardiac Disease in Patient with Type 2 Diabetes Mellitus In Baquba teaching hospital , Diyala city, Iraq

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background:

Type 2 diabetes is a common disorder and an important risk factor for cardiovascular disease (CVD).

Objective: to assess incidence of cardiac disease in patient with type 2 Diabetes mellitus (DM) in Baqubah teaching hospital in Baqubah city, Diyala province.

Patients and Methods: This study was conducted in Baqubah teaching hospital , Diyala province. over a period of 8 months (July 2018 to march 2019). ONE hundred and fifty patient aged 40 years and above were chosen randomly, these patients suffer from type 2 diabetes mellitus (D.M) . A special questionnaire form was pre constructed that includes certain socio-demographic and risk factors and was filled for each subject through short interview during which a verbal consent was obtained. each patient was subjected for measurement of body mass index , measuring of blood pressure and investigated for dyslipidemia . The collected data were classified on Microsoft-Excel file and statistical analysis was sought. The significance of difference was tested using Pearson Chi-square test (χ^2 -test) with P value was equal or less than 0.05.

Results: The results of this study revealed that there was highly significant difference between incidence of cardiac disease among diabetic patients ($p =0.001$), different types of cardiac disease ($p =0.001$), and high significant difference between incidence of cardiac disease

regarding hypertension (P value 0.001) , also it show highly significant difference regarding dyslipidemia (P value 0.002) , Regarding the duration of DM there was a significant association with incidence of cardiac disease , as well as the results revealed that there was no significant difference between different age group (p value 0.08) , male and female gender (p = 0.25) , BMI (P value 0.55) , as well as with smoking (p value 0.75)

Conclusion: DM type 2 is considered as a high risk for many medical complications including cardiac disease so it is necessary to make routinely follow up to diabetic patient . Future research in the area of diabetes should focus on high-throughput unbiased screens to uncover novel mechanisms and biology of disease. In addition, research should focus on searching for risk factors for cardiac disease that may be more specific to diabetes , such as hypoglycemia or medication-related co-morbidities

Key Words: cardiovascular diseases, Type2 diabetes mellitus, Dyslipidemia, Blood pressure, Obesity

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.م.د. أحمد مدب	باطنية	رئيساً
٢	م.د. وسام فالح	جملة عصبية	عضواً
٣	أ.د. اسماعيل ابراهيم	باطنية	مشرفاً

فرع الباطنية

Student name: ZAHRAA HAMZA HUSSEIN

Supervisor name: Proph. Dr.Khudhaire Kh. ALKayalli MBCHB,
DDV,FIBMS

Graduation Research Title: prevalence of cutaneous leishmaniasis in Baquba city, diyala province, Iraq

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Cutaneous leishmaniasis (CL) is occurring in both New and Old World disease. It is caused by species of *Leishmania tropica*, *L. major* and *L. aethiopica*. CL is more common in rural than urban areas. The incubation period is 2-8 weeks. The symptoms differ in the regions, according to the species of parasite and the immune patient response. CL begins as an erythematous papule increase in size produced a nodule, eventually ulcerates and crusts over. The border is raised and distinct. The prevalence of cutaneous leishmaniasis different from one country to another and also variable according to the age and gender for example in Iran(4.8%), Pakistan (3.61%)and more prevalent in adult.

Objective: The aim of this study was to evaluate the prevalence of cutaneous leishmaniasis among patient with different skin disease in Diyala province , Iraq.

Patients and methods : A total number of (16152)patients with different skin disease was seen and examined in outpatient clinic of Baquba Teaching Hospital, for the period from the January to the December of 2017, out of this number only (758) had Cutaneous leishmaniasis, they involved in the study , they were (368) males and (390)females and diagnosed clinically or by investigation.

Results : the results revealed that the prevalence of cutaneous leishmaniasis was

(4.7)among patients with different skin disease (16152) and less prevalent in males(48.55%) than females (51.45%)and highest prevalence was observed in age group more than (13 years) (51.85)while the lowest prevalence was seen in the age group less than two years (10.03).

Conclusion: it was concluded that the cutaneous leishmaniasis was a common skin disease among Iraqi patients with different skin disease and more common in young females than males patients.

key words: cutaneous leishmaniasis, prevalence.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.د.اسماعيل ابراهيم	باطنية	رئيساً
٢	أ.م.د.علي موسى	باطنية	عضواً
٣	أ.د.خضير خلف	باطنية	مشرفاً

فرع الباطنية

Student name: Ruqaya Ali Hussein

Supervisor name: Lecturer Dr.Wissam Falih Hassan

Graduation Research Title: Elevated Troponin T After Acute Ischemic Stroke

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Serum troponin elevation, characteristic of ischemic myocardial injury, has been observed in some acute ischemic stroke (AIS) patients. Its cause and significance are still controversial. The purpose of this study is to find determinants of troponin elevation and its relationship with stroke severity in Baqubah city, Diyala province.

Methods: Between August 2018 and December 2018, 50 consecutive AIS patients confirmed by computed tomography were recruited in this study at Baqubae Teaching Hospital. Serum troponin T level was measured as part of routine laboratory testing on admission. Ten lead standard electrocardiogram (ECG) was performed and stroke severity was assessed based on National Institutes of Health Stroke Scale (NIHSS).

Results: the percentage (80%) of ischemic type of stroke and (20%) of haemorrhagic type of stroke ,and troponine elevation in ischemic more than haemorrhagic. Ischemic stroke patients divided into mild(13%) moderate(25%) sever (62%) after using special scoring system at admission. Troponin levels were higher in patients with more severe stroke measured by NIHSS.

Conclusion: By troponine t we can predict the diagnosis and severity of ischemic stroke.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.د. اسماعيل ابراهيم	باطنية	رئيساً
٢	أ.م.د. علي موسى	باطنية	عضواً
٣	م.د. وسام فالح حسن	عصبية	مشرفاً

فرع الباطنية

Student name: Mohanad Mushtaq Albayati

Supervisor name: Dr. Ahmed M. Athab Ass. Professor in internal medicine

Graduation Research Title: Evaluation of Hypertension in Medical Students of Diyala University

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Hypertension, defined as a systolic blood pressure ≥ 140 mmHg and/or a diastolic pressure ≥ 90 mmHg , is one of the most common chronic diseases. It classify into primary and secondary hypertension according to it's cause.

Objective: A study was conducted to screen the medical students of Diyala University for hypertension. And to find the causes and risk factors of hypertension.

Materials and method: Our study is a cross sectional study was conducted among the medical students using pre-tested questionnaire and measure the blood pressure. Data obtained was analyzed statistically by calculating proportions

Results: Out of 340 students, who participated in the study,100(29.41%) were males and 240(70.59%) were females ,female to male ratio is 2.4:1, in this study the hypertension was 7.06% of all students ,and it was 10(10%) male individual and 14 (5.83%) female individual. Higher rates of hypertension were observed among male

Conclusions: This study reveals that the prevalence of hypertension among the medical students of Diyala University is moderate , and comparable to the findings of earlier studies conducted in other countries. Recommendation The study reinforces the need to encourage healthy lifestyles, healthy food habits and a physically active daily routine, among the adolescents and youth of this country

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	باطنية	أ.د. اسماعيل ابراهيم	١
عضواً	باطنية	أ.م.د. علي موسى	٢
مشرفاً	عصبية	أ.م.د. احمد مدب	٣

فرع الباطنية

Student name: Haneen Essam Ali

Supervisor name: Areej Atiyah Hussein Ph.D

Graduation Research Title: Association between HBV, HCV, HIV and ABO Among Blood Donors in Baqubah City, Iraq

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Blood borne transmitted diseases are a major public health problem worldwide, which has a significant socioeconomic impact, especially in developing countries.

Objectives: To determine the infection rate of hepatitis B virus, hepatitis C virus and human immunodeficiency virus among blood donors attended to Blood Bunk in Baqubah City, Diyala, Iraq.

Materials and Methods: Cross sectional study which conducted at Blood Bunk in Baqubah City. All data presented in this paper were collected from blood donors, males (2729) and females (71); they're aged from 17-62 years; during the period from 1st July 2018 till 1st October 2018. Blood samples were collected from all participants then analyzed by use different enzyme linked immunosorbent assay (ELISA) kits.

Results: High frequency of HBsAg (13.82%) was noticed in this study followed by HCV and HIV 9.25% and 0.61% respectively. Infection in males more than females, and most positive HBV, HIV were in the age group 17-37 years and HCV in age group (38-57) years. Blood group O-ve individuals were commonly infected with HBV, 188 (48.58%), HCV 12(52.85%) and HIV, 3 (37.5%) as compared with all other blood group donors, followed by another percentage regarding others, blood group B+ve individuals were commonly infected with HBV 97 (25.07%) after blood group O+ve. Blood group A+ve individuals were commonly infected with HCV 9 (32.15%) after blood group O+ve. While, HIV is an equal number reported in A+ve and B+ve blood group individuals. Low percentage was noticed to blood group AB+ve. However, higher number of Rh D positive donors than Rh D negative

Conclusions: There were association between viral infections (HBV, HCV, HIV) and blood group of donors, infections with HBV were more than other viruses and common in males and age group (17-37) years.

Key word: Blood donors, blood transfusion, hepatitis B virus, hepatitis C virus, blood group.

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	باطنية	أ.د. اسماعيل ابراهيم	١
عضواً	باطنية	أ.م.د. علي موسى	٢
مشرفاً	أحياء مجهرية طبية/ فايروسات	أ.م.د. أريج عطية	٣

Department of Biochemistry

Student name: Dania Dhamer Adnan

Supervisor name: Zeina F.Fuad . FICMS path

Graduation Research Title: MATERNAL ANEMIA AND LOW BIRTH WEIGHT

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background :-Anemia in pregnancy is a major public health problem and infant LBW is one of major problems in different societies globally .the aim of this study was to determine the relationship between maternal anemia in third trimester during pregnancy and birth weight .

Materials and method :-This study was done at AL-Batool teaching hospital during the period from 1st of September 2018 to 1st December of 2018 ,Total number was 122,(61anemic women in their third trimester and 61 non anemic pregnant mother(control group),A full history was obtained from each women ,followed by examination and investigations as hemoglobin concentration ,women regarded anemic when their hemoglobin levels are less than 11gm/dl and hematocrit value less than 0.33

Results :-Anemia was more common among women (20- 29) years old or younger (88.5 %),Anemia was classified as mild ,moderate severe ,of majority of the women had mild anemia (96.7%) and with out associated systemic conditions such as (diabetes ,excessive vaginal bleeding ,thalassemia)the result of our study was no significant relationship between maternal anemia in third trimester and low birth weight .

Conclusion :-Maternal anemia in third trimester is not risk factor for pregnancy outcomes ,therefor no significant relationship between anemia IDA during pregnancy in third trimester and LBW ,it is recommended that cases of anemia should be diagnosed early and be undergoing immediate management to prevent any further complication .

Keywords:-Anemia ,pregnancy ,Maternal outcome ,fetal outcome .

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	كيمياء عضوية	أ.م.د.صالح مهدي	١

عضواً	كيمياء حياتية سريرية	م.د. بشرى محمود	٢
مشرفاً	كيمياء حياتية سريرية	م.د. زينة فاروق	٣

Department of Biochemistry

Student name: Nabaa Hatef Naji

Supervisor name: Dr. Bushra Mahmood Hussein Chemical pathologist

Graduation Research Title: Serum Level of Alkaline Phosphatase is a useful Clinical Marker in the diagnosis of the Liver Disease

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Serum level of Alkaline Phosphatase is a useful clinical Marker to liver disease.**Background:** -

Alkaline phosphatase (ALP) is found in many tissues, including bone, liver, intestine, kidney, and placenta. Serum ALP measurements are of particular interest in the investigation of two groups of condition: hepatobiliary disease (hepatitis, cirrhosis or malignancy) and bone disease associated with increased osteoblastic activity (child's rickets with D vitamin deficiency, Paget's disease, hyperparathyroidism in the skeleton, metastatic carcinoma). ALP determined by usual biochemical methods reflects total serum levels and does not distinguish the source of the isozyme. Clinicians must therefore rely on other parameter of liver or other organ function or a more specific determination of ALP to assess its source.

Aim and Objective: -The aim of our study to evaluate the level of ALP in patients with liver

disease.**Patients of methods:** -

The study was undertaken on 20 patients with liver disease and 20 healthy populations(control).

Result: -In the present study the level of serum enzyme ALP observed significant

elevation in patient with liver disease.**Conclusion:** -

Laboratory assessment of the patient with suspected or clinically obvious liver disease is context dependent and has to be individualized.

Keywords: liver disease, Alkaline Phosphatase.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	أ.د. زهير معروف	كيمياء حيائية سريرية	رئيساً

عضواً	كيمياء حياتية سريرية	م.د. زينة فاروق	٢
مشرفاً	كيمياء حياتية سريرية	م.د. بشرى محمود	٣

Department of Biochemistry

Student name: Rafal Mohammed Akram

Supervisor name: Dr. Salih Salman

Graduation Research Title: Evaluation of Lipid profile abnormalities seen in type 2 DM patients

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

Background: Prevalence of Diabetes in Iraqi, among which type 2 diabetes mellitus (T2DM), constitutes for 90% of all the diabetic populations. Previous studies have proved the association of T2DM, with increasing risk of cardiovascular diseases (CVDs) and the level of risk varies among males and females. The present study aims to analyze the lipid profile of T2DM patients and compare the lipid profile of T2DM males and females in Iraqi population.

Aims: The purpose of the study was to observe the lipid profile of type 2 diabetics in the Iraqi population.

Methods: The study included 100 T2DM patients, 28 females and 72 males. Total cholesterol (TC), low density lipoprotein cholesterol (LDL-C), high density lipoprotein cholesterol (HDL-C) and triglycerides (TG) concentrations values were analyzed for each group. Paired students test was applied to identify the differences in lipid profile values of males and females with T2D.

Results: The mean value of TC, and LDL-C were higher in overall T2DM patients than the normal range and HDL-C was lower in T2DM patients. Comparison between males and females showed significantly higher LDL-C in females with T2DM than males. Other lipid parameters TC, TG and HDL-C did not show any significant differences between females and males with T2DM.

Conclusions: This study demonstrated the existence of dyslipidemia in T2DM population which is major risk factor for CVD. Greater LDL-C was observed in T2DM females compared to T2DM males suggests higher risk for CVD in females compared to males.

لجنة المناقشة :

ت	اسم التدريسي	الاختصاص	المنصب في اللجنة
١	م.د. زينة فاروق	كيمياء حيائية سريرية	رئيساً
٢	أ.د. زهير معروف	كيمياء حيائية سريرية	عضواً

Department of Biochemistry

Student name:

Supervisor name:

Graduation Research Title:

SUPERVISION CERTIFICATE

I certify that this thesis was prepared under my supervision at Department of Pediatrics- Medical College/ Diyala University

Abstract

لجنة المناقشة :

المنصب في اللجنة	الاختصاص	اسم التدريسي	ت
رئيساً	طب الأطفال	أ.د. مهدي شمخي جبر	١
عضواً	طب الأطفال	أ.د. جليل ابراهيم	٢
عضواً	طب الأطفال	م.د. هيلة عثمان	٣