

II

قال تعالى:-

اللَّهُ نُورُ السَّمَاوَاتِ وَالْأَرْضِ مِثْلُ نُورِهِ كَمِشْكَاةٍ فِيهَا مِصْبَاحٌ الْمِصْبَاحُ فِي زُجَاجَةٍ
الزُّجَاجَةُ كَأَنَّهَا كَوْكَبٌ دُرِّيٌّ يُوقَدُ مِنْ شَجَرَةٍ مُبَارَكَةٍ زَيْتُونَةٍ لَا شَرْقِيَّةٍ وَلَا غَرْبِيَّةٍ يَكَادُ
زَيْتُهَا يُضِيءُ وَلَوْ لَمْ تَمْسَسْهُ نَارٌ نُورٌ عَلَى نُورٍ يَهْدِي اللَّهُ لِنُورِهِ مَنْ يَشَاءُ وَيَضْرِبُ
اللَّهُ الْأَمْثَالَ لِلنَّاسِ وَاللَّهُ بِكُلِّ شَيْءٍ عَلِيمٌ [

صدق الله العظيم

سورة النور- الآية (35)

Dedication

This humble research is dedicate to

***To the spirit of my father and my mother,my God have
mercy on them,and acceptthem well.***

whom with their continuous encouragement

I reached this level of education

my dedication is post bonded to

My brothers and sisters

also my research is dedicated to

My beloved friends and Colleagues

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All thanks to Allah from the start to the end.....

I am grateful to all those who contribute to help me to make this research as accurate and as useful as possible

I would like to express my deepest gratitude to my supervisor

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Abstract

Renal failure means failure of renal excretory function due to depression of glomerular filtration rate. This accompanied to variable extent by failure of erythropoietin production, vitD hydroxylation, regulation of acid base balance and regulation of salt and water balance and blood pressure. Renal failure is associated with a variety of haemopoietic change. This is case control study aimed to determine the complete blood count, urea creatinine and calcium values in chronic renal failure patients (CRF), 100 subjects were recruited for this study, fifty patients with renal failure from Atbara Nori dialysis center and fifty healthy controls were enrolled. Patient data were collected from patient medical files and by questionnaire, 2.5 ml of blood were collected from all participants in EDTA and 2.5 ml of blood collected in lithium heparin container. Sample in EDTA is used to measure haemoglobin concentration, Hct, RBCs and platelet using Haematological analyzer (Mindray bc3000) and samples in lithium heparin were used to measure urea, creatinine and calcium using chemical Analyzer (A15). The data analyzed by SPSS version 15. Means Hb, Hct, RBCs and platelet were significantly lower in the renal failure patients than in controls (P.value \leq 0.000, 0.000, 0.000 and 0.03) respectively but mean of twbcs was nonsignificantly higher than controls (P.value \leq 0.653). Hb and RBCs were significantly decreased with increased the duration of renal failure disease (P.value \leq 0.000 and 0.000) respectively. Mean urea and creatinine were significantly higher than controls (P.value \leq 0.000 and 0.000 respectively), calcium was not affected and recorded normal result (P.value \leq 0.137). In this study we observed that male suffering from CRF (64%) is more than female (36%), the distribution of CRF patients according to age recorded (60%) for the age from (41-60) years then (26%) for age from 21-40 Then (14%) for age more than 60. The distribution of CRF patients according to causes of CRF High percentage (64%) in hypertension then diabetes (20%) then other cause (16%). More studies must be done confirm these results and screening program should be done to reduce the risk and to prevent complication of chronic renal failure.

المستخلص

الفشل الكلوي يعني فشل وظيفة الكلى الإطراحية بسبب القصور في معدل الترشيح الكبيبي . ويرافق هذا إلى حد ما تغيير بسبب فشل إنتاج الإريثروبويتين, وفايتمين د, وعملية إضافة الهيدروكسيل , وتنظيم التوازن الحمضي والقاعدي وتنظيم الملح وتوازن الماء وضغط الدم. ويرتبط الفشل الكلوي مع مجموعة متنوعة من التغيرات المولدة للدم. هذه دراسة حالة هدفت الي تحديد تعداد الدم الكامل واليوريا والكرياتينين والكالسيوم في مرضى الفشل الكلوي تم تعيين مجموعة من 100 شخص لهذه الدراسة, 50 مرضى فشل كلوي من مركز نوري للغسيل الكلوي بمدينة عطبرة و50 من الاصحاء كضوابط للتجربة. تم جمع بيانات المرضى من الملفات الطبية وبواسطة الأستبيان.2.5مل من الدم تم جمعها في حاويات EDTA وأستخدمت العينات لقياس خضاب الدم , ومكداس الدم , عدد الكريات الحمراء , عدد الصفائح الدموية بواسطة جهاز تعداد الدم الآلي (Mindary bc.3000). 2.5 مل من الدم تم جمعها في حاويات ليثيم هيبارين لقياس اليوريا والكرياتينين والكالسيوم بواسطة جهاز الكيمياء (A15). تم تحليل النتائج بواسطة الحزمة الإحصائية للعلوم الإجتماعية الأصدارة 15 إنخفاض خضاب الدم ومكداس الدم و كريات الدم الحمراء والصفائح الدموية إنخفاضا معنويا في المرضى الذين يعانون من الفشل الكلوي مقارنة بمجموعة الضوابط P.value) (0.03,0.000,0.000,0.000) علي التوالي. إرتفع متوسط عدد كريات الدم البيضاء إرتفاع ليس له دلالة إحصائية مقارنة مع الضوابط(P.value0.653) (P.value) .تناقص متوسط خضاب الدم وعدد كريات الدم الحمراء مع زيادة مدة مرض الفشل الكلوي (P. value 0.000 ,0.000) علي التوالي. وايضا زيادة اليوريا والكرياتينين بصورة ملحوظة وسجل الكالسيوم قراءات طبيعية (,0.000,0.000,0.173 P. value) علي التوالي. في هذه الدراسة لوحظ أن الرجال(64%) يعانون من الفشل الكلوي أكثر من النساء(36%) , إنتشر الفشل الكلوي في المرضى على حسب العمر سجل (60%) في العمر من 41-60 يليها(26%) في العمر من 21-40 يليها (14%) في الاعمار أكثر من 60 سنة. إنتشر في المرضى على حسب سبب الفشل الكلوي بنسبة عالية (64%) في إرتفاع ضغط الدم يليها السكري (20%) يليها الأسباب الأخرى (16%) أوصت هذه الدراسة بإجراء عدد من الدراسات حول هذا الموضوع لتأكيد نتائج هذه الدراسة, كماينبغي إجراء فحوصات ومتابعة المرضى لمنع حدوث مضاعفات.

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List of Abbreviations

ARF: Acute renal failure

Ca: Calcium

CKD: Chronic kidney disease

CRF: Chronic renal failur

CSF: Colony stimulating factor

EDTA: Ethylene diaminate tetra acetic acid

G.CSF: Granulocyte colony stimulating factor.

GFR: Glomerular filtration rate

GI: Gastrointestinal

GM.CSF: Granulocyte macrophage colony stimulating factor

Hb: Hemoglobin

Hct: Hematocrite

IL: Interleukin

M.CSF: Macrophage colony stimulating factor

MAG3: Mercapto acetyl triglycin

MCH: Mean cell hemoglobin

MCHC: Mean cell hemoglobin concentration

MCV: Mean cell volume

PCV: Packed cell volume

Plt: Platelet

PTH: Parathyroid hormone

RBCs: Red blood cell counts

RDW:Red blood cell distribution width

SCF:Stem cell factor

SPSS:Statistical package for social science soft ware

WBCs: White blood cell counts

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