بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ (1) خَلَقَ الْإِنسَانَ مِنْ عَلَقٍ (2) اقْرَأْ وَرَبُّكَ الْأَكْرَمُ (3) الَّذِي عَلَّمَ بِالْقَلَمِ (4) عَلَّمَ الْإِنسَانَ مَا لَمْ يَعْلَمْ (5)

(سورة العلق (الآيات من 1 الي 5

Dedication

To my darling parents who always support me

and encourage me to success.

To my helpful sisters for their endless help and

motivation

To my friend and collages who gave me the

possibility of completing this thesis.

To every one who help me to learn new things

and to reach this level.

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Abstract

This is a hospital based analytical descriptive case-control study was conducted in Al Ribat hospital during the period from March to July 2011, to determine the morphological pattern of anemia and iron status among anemic chronic renal failure patients attending Ribat hospital. Blood samples were collected under sterile condition from one hundred patients with chronic renal failure as case group, and fifty from healthy individuals as control group, the hematological parameters and serum ferritin were measured using automated machine sysmex kx 21 and chemistry analyzer selectra X-L respectively. Data obtained were analyzed using software program SPSS.

The results showed that the means of hemoglobin (9.4 g/dL), hematocrit (28%) and RBCs count (3.2×10^{12} cells/L) of case group were statistically significant lower than means of control p value (< 0.05).

The study showed that the frequency and percent of anemia among case group 71 (71%) were anemic and remaining 29 (29%) were non anemic individuals.

Patients with chronic renal failure develop a normocytic normchromic anemia (100%).

The study showed that a highly significant level of serum ferritin in chronic renal failure patient the mean 621µg/L when compared to the mean of control group the mean 73µg/L, p value (< 0.05).

ملخص البحث

أجريت هذه الدراسة التحليلية الوصفية (حالة وحالة ضابطة) بمستشفي الرباط الوطني خلال الفترة من مارس حتى يوليو 2011. هدفت الدراسة لتحديد الانماط المورفولوجية لفقر الدم وحالة الحديد بين مرضى الفشل الكلوي الذين يترددون علي مستشفى الرباط.
أخذت عينات دموية من مائة مريض مصابين بالفشل الكلوي المزمن وخمسون عينة من اشخاص اصحاء كحالة ضابطة وتم قياس مكونات الدم بالاضافة لمستوي الحديد باستخدام جهاز عدد الخلايا وجهاز التحليل الكيميائي علي التوالي وتم تحليل النتائج باستخدام برنامج الحزم الاحصائية للمجتمع.
وكشفت الدراسة أن هناك انخفاض ذو دلالة معنوية في متوسطات خضاب الدم (g/dl9.4) والخلايا المكدسة (28%) من الدم الكلي وعدد كريات الدم الحمراء ((3.2 ×10 cells/L ^{12} عند مقارنتها مع المجموعة الضابطة (P value0.00).
واشارت الدراسة إلى أن انتشار فقر الدم بين المرضي المصابين بالفشل الكلوي كانت 71 حالة (71٪) و 29 (29%) المتبقية هم الأفراد غير مصابين بفقر الدم.
وجد ايضا أن نوع فقر الدم من الناحية المورفولوجية المنتشر بين مرضى الفشل الكلوي المزمن هو نوع فقر دم السوي.
اوضحت الدراسة ان هناك زيادة في مستوي الحديد في الدم عند المرضي المصابين بالفشل الكلوي المزمن عند مقارنه بالحالة الضابطة وهذا المستوي العالي للحديد أسبابه كانت نسبة لتلقيهم كميات من الحديد.

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List of abbreviations

K^2 EDTA	Ethelene Diamine tetra acetic acid
RBCs	Red Blood Cells
WBCs	White Blood Cells
HICN	Cyano met hemoglobin
PCV	Packed Cell Volume

FL	Femto litre
RPI	Reticulocyte Production Index
CBC	Complete Blood Count
CKD	Chronic Kidney Disease
ESRD	End Stage Renal Disease
ARN	Acute Renal Necrosis
GFR	Glomrular Filtration Rate
CKD C	hronic Kidney Disease
PC	Programmed Computer