DEDICATION

To my parents who spare no efforts to enlighten our life

Acknowledgment :

Primary my praise and thanks should be to Allah,the almighty moat gracious and most merciful ,who grated me the serenity ,means of strength and practice to a accomplish this work .

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ABSTRACT

This is an analytical case –control study, conducted at Al–Gdarif teaching hospital, during the period from January to April 2011. The aim of this study was assessment of the hematological parameters (complete blood count), and serum ferritin, tests in visceral Leishmaniasis (v l) patients, attended Al-Gdarif teaching hospital. Fifty visceral Leishmaniasis patients were informed about the study and agreed for participation .The study population (both sex) was divided into three group according to age .

Five ml of venous blood was bleed ,from both patients and control , 2.5ml in EDTA(1.2mg/ml) containers and 2.5ml without anticoagulant (serum) ,to investigated the CBC ,peripheral blood film ,reticulocyte count, and serum-ferritin tests .Fully automated hematological analyzer sysmex was used for CBC, and manual analysis for blood film ,and reticulocyte count ,and a fully automated immunoassay system (AIA -600 11) was used for Serum-ferritin analysis. The staining films(Ral-stain), were examined to detect the peripheral blood morphology, and other staining films(vital stain) to count reticulocyte cell manually .

All visceral Leishmaniasis patients had mean value of HB(7.2g/dl) ,RBC(3.6×106), Hct(25.4%), MCV(69.5 fl), MCH(19.9 pg), MCHC(28.1g/dl), WBCs($3.2\times10^{6\mu l}$), Neutrophil(33.2%) ,And platelet($142.2\times10^{3}\mu l$), decrease, highly significant than control mean values(All p value=0.00).The mean of lymphocyte, and eosinophil,(50.8% ,11.2%,respectively), significant increase than control mean values (p value=0.00) due to infecation. The mean of the Serum-ferritin in test (33.2 ng/ml), showed significant decrease than control (52.7 ng/ml) ,but with normal rang .The reticulocyte count showed significant increase in test ,than control (mean=4.8%).

مستخلص الاطروحة

هذه دراسة تحليلية تعتمد على المقارنة بين الحالة والمعيار المفتض تم اجراءها في الفترة ما بين شهر يناير الى ابريل 2011 بمستشفي القضارف التعليمي لقياس خضاب الدم ومستوي مخزون الحديد.

اخزت 50 عينة من مرضي الليشمينيا الحشوية و25 عينة من المعيار بعد اخطارهم بهذه الدراسة واهميتها واخز موافتهم علي المشاركة. قسم مرضي الليشمينيا من الذكور والاناث الي ثلاثة مجموعات حسب الفئات العمريه.

تم أخذ 5 مل من الوريدي من المرضى والمعيار وقسمت الى 2.5 مل في حاويات تحتوي على مانع تجلط (EDTA 1.2 mg/ml) و 2.5 مل في حاويات لا تحتوي على مانع تجلط لتحضير المصل وذلك لتحليل الدم الكامل والشكل الظاهري للخلايا والخلايا الشبكية ونسبة مخزون الحديد المصلي.

استخدم جهاز (sysmecs) الفوري لتحليل الدم الكامل اتوموتيكيا ويدوي تمت معرفة الشكل الظاهري لخلايا الدم من الشرائح المصبوغة بصبغة (Ral) وحساب عدد الخلايا ل\الشبكية من الشرائح المصبوغة بصبغة الخلايا الحية .

اظهرت الدراسة ان قيمة متوسط خضاب الدم (g/dl 7.2) متوسط تعداد كريات الدم الحمراء (3.6 µl 10^6 x) , متوسط تكدس الخلايا (25.4%) ومتوسط حجم الخلية (69.5 fl) , متوسط خضاب الدم في الخلية (19.9 pg) , متوسط تركيز خضاب الدم الخلية (28.1 g/dl) , متوسط الخلايا المحببة (33.2%) , متوسط الصفائح الدموية (142.2 µl 10^3 x) ولكل مرضى الليشمينا الحشوية ادنى مقارنة مع قيم متوسط المعيار بفرق ذو دلالة احصائية واضحة (Pvalue 0.00) ويعزي ذلك لان جميع المرضى مصابو بالانيميا.

وان قيم متوسط الخلايا اللمفية (50.8%) والخلايا المحببة القاعدية =(11.2%) أعلى مقارنة مع المعيار ذو دلالة احصائية (Pvalue 0.00) وذلك الى الاصابة بطفيل الليشمينا .

وان قيم متوسط مخزون الحديد = (33.2 ng/ml) ادنى مقارنة مع المعيار بفرق ذو دلالة احصائية (Pvalue 0.00) ولكنه ضمن المدى الطبيعي .

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LIST OF ABBREVIATION

HB Hemoglobin

RBCs Red blood cells

Hct Haematocrit

MCV Mean cell volum

MCH Mean cell hemoglobin

MCHC Mean cell hemoglobin concentration

HIV Human immune iruvs

WBCs Whit blood cells

IgG Immunoglobin G

EDTA Ethylne diamine tetra acetic acid

CMI Cell-mediated immunity

CL Coutaneous leishmaniasis

Mcl mucocutaneous leishmaniasis

V L Visceral leishmaniasis

IBC Iron binding capacity

CBC Complete blood count

CMI Cell mediated immunity