

## ﴿ بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ ﴾

قال تعالى:

اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ ﴿١﴾ خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ ﴿٢﴾ اقْرَأْ وَرَبُّكَ  
الْأَكْرَمُ ﴿٣﴾ الَّذِي عَلَّمَ بِالْقَلَمِ ﴿٤﴾ عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ ﴿٥﴾

صدق الله العظيم

سورة العلق الآيات 1-5

## **Dedication**

To my dear father Alsayeed Mohameed Alimam

To my dear mother Mahasen Awad Altaher

To my dear son Zeyad Ali Elamin Mohammed

To my sister Fatima Alsayeed Mohameed Alimam

To my brothers A.Abrahim , Ahmed ,Mouas and Osama Alsayeed  
Mohameed Alimam

To my teachers and friends

To all whom I love

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## **Abstract**

This is a descriptive study conducted to evaluate the frequency of HIV and HBV and the effect of gender, blood or blood product transfusion history and Hepatitis B virus vaccination on the study among patients referred to routine Hematology Laboratory in Khartoum Teaching Hospital in June 2014.

Ninety Already collected routine blood sample for complete blood count test were included in the study. Clinical data were collected using questionnaire. Among the studied patients (37) were male and (53) were female. 15 patients were with blood or blood product transfusion history. 3 patients were vaccinated against viral disease. After investigating the samples for HIV and HBV tests using ELISA in National Health Laboratory, the data were analyzed using computer program SPSS.

HBV positive result was one (1.1%) and negative was eighty nine (98.9%). HIV positive result was zero (0%) and ninety (100%) negative result. according to gender affect HBV distribution was insignificant (p value 0.4) and gender not influence HIV result. affect of blood or blood product transfusion history was insignificant (p value 0.6) in HIV result, HIV result not affected. The distribution of HBV among the studied according to vaccination against HBV was insignificant (p value 0.8).

The prevalence of HBV and HIV positive result was low and it was not affected significantly and it was not affected by either gender, blood or blood product transfusion history.

## المستخلص

الهدف من هذه الدراسة هو تقييم معدل إنتشار فيروس متلازمة العوز المناعي وفيروس إلتهاب الكبد الوبائي (ب) وتقييم تأثير بعض المتغيرات مثل جنس المريض و نقل الدم السابق أو أحد مكوناته والتطعيم ضد إلتهاب الكبد الوبائي ب في العينات الروتينية لقسم أمراض الدم بمستشفى الخرطوم التعليمي في شهر يونيو 2014 .

تسعون عينة (90) مجموعة مسبقاً لفحص حساب خلايا الدم الكامل ضمننت في الدراسة بعد أخذ موافقة المريض وكتابة الإقرار وتم جمع البيانات السريرية بواسطة الإستبيان . سبعة وثلاثون مريض كانوا من الرجال وثلاثة وخمسين كانوا من النساء .خمسة عشر مريض تم نقل دم لهم سابقا .ثلاثة مرضى تم تطعيمهم سابقاً ضد إلتهاب الكبد الوبائي . بعد إختبار العينات بواسطة ELISA في المعمل القومي للصحة العامة لكل من إختبار فيروس متلازمة العوز المناعي وفيروس إلتهاب الكبد الوبائي (ب). تم تحليلها إحصائياً بإستخدام برنامج الكومبيوتر SPSS.

كشفت النتائج أن نسبة فيروس إلتهاب الكبد الوبائي (ب) الإيجابية (1.1%) والسلبية (98.9%) و نسبة فيروس متلازمة العوز المناعي الإيجابية (0%) والسلبية (100%). لم يكن هناك فروق ذات دلالات إحصائية ناجحة من كل من متغير جنس المريض ونقل الدم السابق أو أحد مكوناته و التطعيم ضد إلتهاب الكبد الوبائي ب على نتيجة الدراسة .

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## List of Abbreviations

<b>Abbreviations</b>	<b>Full word</b>
<b>Ab</b>	Antibody
<b>Ag</b>	Antigen
<b>AIDS</b>	Acquired Immune deficiency Virus
<b>BBPs</b>	Blood Borne Pathogene
<b>BBV</b>	Blood Borne Virus
<b>CD4</b>	cluster of differentiation 4
<b>CBC</b>	Complete blood count
<b>DNA</b>	deoxyribonucleic acid
<b>EDTA</b>	Ethylenediaminetetraacetic acid
<b>ELIZA</b>	Enzyme linked immunosorbent Assay
<b>ESR</b>	erythrocyte sedimentation rate
<b>FNA</b>	Fine Needle Aspiration
<b>HBV</b>	Hepatitis B virus
<b>HCP</b>	Health care Personnel
<b>HCV</b>	Hepatitis C virus
<b>HIV</b>	Human immunodeficiency virus
<b>HTLV</b>	Human T cell Lymphotropic Virus
<b>HRP</b>	Horse Raddish Peroxidase
<b>IgM</b>	Immunoglobulin M
<b>MCH</b>	Mean Corpuscular hemoglobin
<b>MCV</b>	Mean Corpuscular volume
<b>MPV</b>	Mean Platelet Volume
<b>OD</b>	Optical Density
<b>OSHA</b>	Occupational Safety and Health Administration
<b>P24</b>	Protein 24
<b>PCR</b>	Polymerase Chain Reaction
<b>PDW</b>	Platelet Distribution Width
<b>RBC</b>	Red blood cell count
<b>RDW</b>	Red cell Distribution Width
<b>RNA</b>	Ribonucleic acid
<b>TMB</b>	Tetra methyle Benzidine
<b>TTI</b>	Transfusion Transmitted Infection
<b>WBC</b>	White blood cell count