

الآية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

(وَإِذَا مَرِضْتُ فَهُوَ يَشْفِينِ)

صدق الله العظيم

سورة الشعراء ﴿٨٠﴾

Dedication

To that who taught to write the first letter of the alphabet,
to the soul of **my father**.

To the symbol of the absolute motherhood, the
unparalleled human being,

My mother.

To my brothers and sisters.

To all my colleagues who are too numerous to mention
by name, who advised, supported and encourage me.

To my teachers

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Abstract

The main aim of this study was to determine the seroprevalence and the positive risk factors of HBV infection among haemodialysis patients attending dialysis centers in Khartoum State, Sudan. Ninety ($n = 90$) subjects were investigated during the period from April to August 2012. Most of the subjects examined were males 47 (52.2%) and 43 (47.8%) were females age ranging from 18 – 80 years. The HBsAg, the main serological marker for HBV infection was detected among 11 (12.2%) haemodialysis patients using ELISA. There were no remarkable difference between the prevalence of HBsAg among married dialysis patients compared to single ones. The results revealed that the highest prevalence rate for HBV infection (16.7%) was among the age group (21 – 40) years. There were a substantial difference between the prevalence of HBsAg among males (17%) compared to females (7%). The data revealed that patients under treatment for (83 – 106) months (20%) had a greater risk in HBV positivist, and indication that duration of dialysis has significant effect in contracting the disease. The results obtained in this study illustrated that the previous jaundice was a profounder to HBV infection among the subjects examined. Blood transfusion was found to be the possible risk factor for the infection, however, no other risk factors (e.g. medical interventions and previous surgical operations) were found to be predisposing to the infection.

ملخص البحث

هدفت هذه الدراسة بصورة أساسية إلى تحديد مدي انتشار الإصابة بالتهاب الكبد الفيروسي (ب) وتحديد عوامل الخطر المحتملة للإصابة به وسط مرضي الاستصفاء الدموي بمراكز الغسيل في ولاية الخرطوم – السودان.

شملت الدراسة تسعين مريضاً خلال الفترة من ابريل وحتى أغسطس 2012. معظم المرضى الذين تم فحصهم من الذكور 47 (52.2%) و 43 (47.8%) من الإناث وتتراوح أعمار المرضى بين 18 – 80 سنة. كانت نتيجة المستضد السطحي لفيروس التهاب الكبد (ب) والذي يعتبر المؤشر الرئيسي للإصابة بالتهاب الكبد الفيروسي (ب) ايجابية في 11 (12.2%) من مرضي الغسيل الكلوي باستخدام تقنية الاليزا. لم تظهر الدراسة أي فروق بارزة بين انتشار المستضد السطحي لفيروس الكبد (ب) وسط المتزوجين المرضى مقارنة بغير المتزوجين منهم. أوضحت الدراسة أن المرضى الذين تتراوح أعمارهم (21 – 40) سنة أكثر عرضة للإصابة بالتهاب الكبد الفيروسي (ب) (16.7%) مقارنة بالفئات العمرية الأخرى. وجدت هنالك فروق كبيرة بين انتشار المستضد السطحي لفيروس الكبد (ب) وسط الرجال المرضى (17%) مقارنة بالنساء المرضى (7%). وجدت أيضاً أن مدة غسيل الكلي ترتبط مع ايجابية المستضد السطحي لفيروس التهاب الكبد (ب) حيث كشفت النتائج المحللة أن المرضى تحت المعالجة من (83 – 106) شهراً (20%) هم الأكثر تعرضاً لالتهاب الكبد الفيروسي (ب). خلصت الدراسة إلى أن التعرض السابق لليرقان كان عامل الخطر ذو الأثر العميق الذي يسبق الإصابة بالفيروس. تبين أن النقل السابق للدم كان عامل الخطر للإصابة وفي حين أن العمليات الجراحية السابقة و التدخلات الطبية لم تكن عوامل خطر مهيئة للإصابة.

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List of abbreviation

- **AIDS** (Acquired Immune Deficiency Syndrome).
- **ALT** (Alanine aminotransferase).
- **AST** (Aspartate aminotransferase).
- **ARF** (Acute Renal Failure).
- **CRF** (Chronic Renal Failure).
- **CDC** (Center for Disease Control and Prevention).
- **CTLs** (Cytotoxic T Lymphocytes).
- **ELISA** (Enzyme Linkage Immunesorbant Assay).
- **ESRd** (End Stage Renal disease).
- **HBcAg** (Hepatitis B core Antigen).
- **HBeAg** (Hepatitis B early Antigen).
- **HBsAg** (Hepatitis B surface Antigen).
- **HBV** (Hepatitis B Virus).
- **HCC** (Hepatocellular carcinoma).
- **HD** (Haemodialysis).
- **HDV** (Hepatitis Delta Virus).
- **HIV** (Human Immunodeficiency Virus).
- **KKDC** (Khartoum Kidney Dialysis Center).
- **LHBsAg** (Large HBsAg).
- **MHBsAg** (Meddle HBsAg).
- **SHBsAg** (Small HBsAg).
- **OFRs** (Open Frame Reading).
- **PCR** (Polymerase Chain Reaction).
- **IR** (Incidence Risk).
- **RR** (Relative Risk).