

الآية

بسم الله الرحمن الرحيم

قال تعالى (وَعَلَّمَ آدَمَ الْأَسْمَاءَ كُلَّهَا ثُمَّ عَرَضَهُمْ عَلَى الْمَلَائِكَةِ

فَقَالَ أَنْبِئُونِي بِأَسْمَاءِ هَؤُلَاءِ إِنْ كُنْتُمْ صَادِقِينَ) (31) قَالُوا سُبْحَانَكَ لَا

عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ (32)

صدق الله العظيم

سورة البقرة

Dedication

To my honorable parents

To my wife

To my brothers and sisters

TO my teachers

To my dear friends

Acknowledgements

Thanks first and last to ALMIGHTY ALLAH who enabled me to conduct this study.

My gratitude must be extended to my supervisor. Dr. Yousif Fadlallah Hamed Elnil who made this study possible by his valuable advices and effort. Also, his pleasant personality made it easy for us to do this work together. My unlimited appreciations go to all working staff of National Public Health Laboratory for giving me the permission and their cooperation to achieve this work.

My deep thanks to the all blood donors whose samples were collected.

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Abstract

This is a descriptive cross sectional study. It was conducted among blood donors in Khartoum State, (National Public Health Laboratory), during the period from March to October (2014) on a total of ninety one subjects (n=91) to compare sensitivity and specificity of immunochromatographic test and ELISA in detecting Hepatitis B surface antigen (HBsAg). All subjects examined in this study were males, (3.3%) of blood donors were positive for HBsAg, when tested by ICT, whereas it was increased to (4.4%) by ELISA procedure ran on the same serum samples. There was one false negative result when tested by ICT. Total of 13 blood donors were previous blood transfusion, one of them (7.7%) was positive for HBsAg when tested by ELISA. This revealed no statistical significance ($P > 0.05$). The commonest age group infected was from 31-40 year (2.2%) and low rate infection was identified among both age groups 18-30 year and 41-50 year (1.1%). The mean seroprevalence of HBV calculated from both tests was (3.9%). The result obtained showed that ICT technique has 75% sensitivity and 100 % specificity for detecting HBsAg, while ELISA revealed 100% sensitivity and 100% specificity. Results showed that the ICT used in this study for HBsAg screening was less sensitive when compared with ELISA.

ملخص الدراسة

أجريت هذه الدراسة الوصفية المستعرضة, على متبرعى الدم فى المركز القومى للصحة بولاية الخرطوم, خلال الفتره من مارس الى أكتوبر 2014 . شملت هذه الدراسة 91 شخصا للمقارنة بين حساسية وخصوصية الإختبار بواسطة تقنية الكروماتوغرافى الممنع والإليزا لفحص المستضد السطحى لإلتهاب الكبد الفيروسى ب.

بعد إجراء الإختبارات وجد أن 3 عينات موجبة (3.3%) لإلتهاب الكبد الفيروسى (ب) بإستعمال الكروماتوغرافى الممنع وقد نتج عنه عينه واحده سلبية خاطئة وعندما أجريت نفس عينات السيرم بالإليزا زاد الى 4 (4.4%) .

هذه الدراسة سجلت عدد 13 متبرع أجريت لهم عمليات نقل دم سابقه بينهم 1 (7.7%) موجب للمستضد السطحى لإلتهاب الكبد الفيروسى(ب) بواسطة إختبار الاليزا . لم تظهر الدراسة أي تأثير ذات دلالة إحصائية لنقل الدم. أظهرت الدراسة أن الإصابة أكثر شيوعا بين الذين تتراوح أعمارهم 31- 40 سنة(2.2 %), و اقل معدل اصابة(1.1 %) فى الفئتين 18-30 و 41-50 سنة. فى الدراسة الحالية وجد أن متوسط نسبة إنتشار التهاب الكبد الفيروسى ب وسط متبرعى الدم (% 3.9).

أظهرت نتائج هذه الدراسة أن لتقنية الكروماتوغرافى حساسية 75% وخصوصية 100% بينما تقنية الإليزا أظهرت حساسية وخصوصية عالية بنسبة 100%. وجد أن هنالك فرق واضح بين الإختبارين, حيث أن تقنية الكروماتوغرافى أقل حساسية من الإليزا.

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