

بسم الله الرحمن الرحيم

قال تعالى:

(كَمَا أَرْسَلْنَا فِيكُمْ رَسُولًا مِنْكُمْ يَتْلُو عَلَيْكُمْ آيَاتِنَا وَيُزَكِّيكُمْ وَيُعَلِّمُكُمُ الْكِتَابَ

وَالْحِكْمَةَ وَيُعَلِّمُكُم مَّا لَمْ تَكُونُوا تَعْلَمُونَ) صدق الله العظيم

(البقرة الآية ١٥١)

Dedications

To my wife.....

To my sons Mowaffag and Mozaffar.....

For you.....

Acknowledgments

I appreciate with thank frist of all to allah who made all thing possible.

I would like to express my gratitude and thanks to my supervisor Prof. Hamid Suliman for his guidance.

I would like also to acknowledge to my lecturers and my colleagues in Sudan University, and every one who helped me.

Abstract

This study was conducted in a period from March to October (2013) in Abri city which is located in Northern State.

The aim of the study was to compare blood film smears with ICT-Ag, ICT-Ab and buffy coat technique.

The study was conducted on 200 blood samples. Of them, 118 (59%) samples were found to be positive for malaria parasites by blood smear, 128 (64%) were positive by the ICT-Antigen detection test. While the positivity of the ICT-Antibody detection test and buffy coat smears were 131 (67%) and 121 (60.5%) respectively.

In this study the sensitivity and specificity of ICT-Ag, ICT-Ab and buffy coat smears were calculated. We used the BF as gold standard to compare our results. ICT-Ag had a sensitivity and specificity of 99.15% and 88.17% respectively, while ICT-Ab showed sensitivity of 96.61, specificity 96% and buffy coat smears had sensitivity of 95.76%, specificity of 91.11% for detection of malaria.

The results also showed that the sensitivity of ICT-Ag, ICT-Ab and buffy coat smear in low malaria infections (1-10 parasites/100 fields) is 98.07%, 94.23%, 90.38% respectively, while their sensitivity in high infections was 100%, 83.33%, 100% respectively. However their sensitivity was 100% in moderate infections for all techniques.

الخلاصة

اجريت هذه الدراسة فى الفترة ما بين مايو الى اكتوبر للعام ٢٠١٣ بمدينة عبرى بالولاية الشمالية لمقارنة مسحة الدم المستخدمة فى تشخيص الملاريا بفحص الاستشراب المناعى السريع المتقصى للانتيجين و فحص الاستشراب المناعى السريع المتقصى للاجسام المضادة ومسحة الدم المركز ، فى تشخيص طفيل الملاريا.

فى هذه الدراسة تم جمع ٢٠٠ عينة دم من اشخاص يتوقع ان يكونوا مصابين بالملاريا ، ومن خلال الفحص وجد ان العينات الموجبة بمسحة الدم العادية ١١٨ عينة بنسبة ٥٩% بينما كانت العينات الموجبة بفحص الاستشراب المناعى السريع المتقصى للانتيجين و فحص الاستشراب المناعى السريع المتقصى للاجسام المضادة ومسحة الدم المركزة، هى ١٢٨ (٦٤%)، ١٣١ (٦٧%)، ١٢١ (٦٠.٥%) على التوالى

وكذلك اظهرت النتائج ان حساسية فحص الاستشراب المناعى السريع المتقصى للانتيجين و فحص الاستشراب المناعى السريع المتقصى للاجسام المضادة ومسحة الدم المركز هى ٩٩.١٥%، ٩٦.٦١%، ٩٥.٧٦% على التوالى وكذلك الخصوصية ٨٨.١٧%، ٨٢.٨٢%، ٩١.١١% على التوالى.

ولوحظت ايضا من نتائج البحث ان حساسية فحص الاستشراب المناعى السريع المتقصى للانتيجين و فحص الاستشراب المناعى السريع المتقصى للاجسام المضادة ومسحة الدم المركز فى الاصابات الخفيفة بالملاريا (١-١٠ طفيل فى كل ١٠٠ حقل مجهرى) تبلغ ٩٨.٠٧%، ٩٤.٢٣%، ٩٠.٣٨% على التوالى ، وفى الاصابات العالية جدا تبلغ حساسيتها ١٠٠%، ٨٣.٣٣%، ١٠٠% بينما تبلغ ١٠٠% لكل الطرق فى الاصابات المتوسطة.

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