

## الآية

بسم الله الرحمن الرحيم

قال تعالى:

سَنُرِيهِمْ آيَاتِنَا فِي الْآفَاقِ وَفِي أَنْفُسِهِمْ حَتَّىٰ يَتَّبِعَنَ لَهُمْ اللَّهُ  
الْحَقُّ ۖ أَوَلَمْ يَكْفِ بِرَبِّكَ أَنَّهُ عَلَىٰ كُلِّ شَيْءٍ شَهِيدٌ

صدق الله العظيم

سورة فصلت الآية 53

## ***Dedication***

To

*The Greatest Persons in My life..... My Mother and  
my Father*

To

*My Brother Magdi..... for His Support*

To

*Hala, my niece.....for Making every day very joyful*

To

*All my family.....whom I Love Them Very Much*

To

*My Friends, whom I spend with them very excited  
moments*

*I Dedicate This Humble Study*

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## Abstract

This study was aimed to evaluate malaria diagnostic methods in Medical Military Hospital-Khartoum State. A Cross-sectional study design was conducted in the period between March - December 2015. The study was conducted on 200 subjects, 92 (46%) were males and 108 (54%) were females. The age ranging between 1-65 years old, the mean age was  $27 \pm 18$  years old. Two hundred blood samples were taken from all study subjects, clinical and parasitological data were obtained and recorded. Out of 200 blood samples, 20 (10%), 25 (12.5%) and 20 (10%) were positive for *P.falciparum* by using stained blood films, immunochromatographic test (ICT) and buffy coat concentration technique respectively. Out of 200 blood samples, 4 (2%) were positive for *P. vivax* by using the three methods. The study demonstrated that the prevalence rate of malaria in males was 13 (6.5%) which was higher than in females 11(5.5%).The study showed that the prevalence was higher, 12 (6%) in age group between 1-15 years. The prevalence rate of malaria was 24(12%) by using blood films and buffy coat concentration technique, while 29(14.5%) by using ICT. Out of 29 positive cases by using ICTs, 7(3.5%) was found to have previous infection in the time period of 1-30 day.

Out of 24 positive cases, 20(10%) was treated previously and the most type of treatment used was artemether with percent of (6%).

The study indicated that very high sensitivity (100%) for the blood films and buffy coat concentration technique compared to ICT (96%) for malaria diagnosis.

## مستخلص الدراسة

هدفت هذه الدراسة إلى تقييم طرق تشخيص الملاريا في مستشفى السلاح الطبي ولاية الخرطوم. الدراسة المستعرضة نفذت في الفترة ما بين مارس 2015م - ديسمبر 2015م. أجريت الدراسة على 200 شخص، كان عدد الذكور 92 (46%) بينما عدد الإناث 108 (54%). يتراوح العمر ما بين 1-65 سنة، ومتوسط العمر  $27 \pm 18$  سنة. أخذت مائتان عينة دم من جميع الأشخاص ضمن الدراسة، تم الحصول على البيانات السريرية والطفيلية و تم تسجيلها. من أصل 200 عينة دم، 20 (10%)، 25 (12.5%) و 20 (10%) كانت إيجابية للملاريا للمصورة المنجلية باستخدام طرق المسحة الدموية المصبوغة، الاختبار المناعي الكروماتوغرافي وتقنية buffy coat concentration على التوالي. من أصل 200 عينة دم، 4 (2%) كانت إيجابية للمصورة النشيطة باستخدام الثلاث طرق. أوضحت الدراسة أن معدل انتشار الملاريا في الذكور 13 (6.5%) كان أعلى من الإناث 11 (5.5%). وأظهرت الدراسة أن أعلى انتشار (12 (6%) كان في الفئة العمرية بين 1-15 سنة. كان معدل انتشار الملاريا 24 (12%) باستخدام المسحة الدموية وتقنية buffy coat concentration، بينما كان 29 (14.5%) باستخدام الاختبار المناعي الكروماتوغرافي. من أصل 29 عينة إيجابية باستخدام الاختبار المناعي الكروماتوغرافي، 7 (3.5%) لديهم إصابة سابقة في الفترة ما بين 1-30 يوم. من أصل 24 عينة إيجابية، 20 (10%) عولجوا سابقاً وأكثر لواع العلاج استعمالاً كان artemether بنسبة 6% . أوضحت الدراسة أن حساسية المسحة الدموية وتقنية buffy coat concentration عالية جداً (100%) ، مقارنة بالاختبار المناعي الكروماتوغرافي (96%) في تشخيص الملاريا.

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