Dedication:

I dedicate this project to my father- **Mohamed Ahmed Elhag** -God rest his soul, to my mother- **Om Al-Kram Mohamed Ali** -God rest her soul, and to my sister- **AwatifMohamed Ahmed Elhag** -God rest her soulwho supported, sustained and inspired with tireless encouragement and everlasting love

To my, sisters and brothers

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LIST OF ABBREVIATIONS

ELISA: Enzyme Linked Immune Sorbent Assay

IgG : Immunglubin G

IgM : Immunglubin M

T.gondii : *Toxoplasma gondii*

Abstract

The study was a descriptive cross sectional, that was conducted at theInternational laboratory Health of Khartoum State. Following informed consent, samples were collected at voluntary counseling and testing centers blood bank in Khartoum, Omdurman and Khartoum North teaching Hospitals. The study was done during 2011-2013. The study involved 534 samples taken from the blood donors; the study has investigated *Toxaplasmagonadii* by latex agglutination test, in addition to assessment of levels of IgG and IgM using the ELISA test. The area from which study samples were collected included Khartoum with 299(56%) samples, Omdurman with 118(22.1%) samples and Khartoum North with 117(21.9%) samples. Positive results were detected in 235(44%), 218(40.8%), 187(35%) by using latex agglutination test, ELISA for IgG and IgM levels respectively.

All samples were examined by latex agglutination, ELISA IgG and IgM test for the presence of anti-*Toxoplasma* antibodies. The study population was divided in to7 age group (18-25), (26-30), (31-35), (36-40), (41-45), (46-50), (51-56) age distribution of the study groups with the latex agglutination test, ELISAIgG and IgM test. The highest rate (36%) was reported amang the age group18-25 years, but the lowest rate1.3% was reported amang the age group 51-56 years.

The latex test, IgG and IgM tests were significant.

The study showed that drinking non boiling milk found to be statistically significant in latex test and ELISA. IgM($P = 0.002$),($P = 0.049$) and not significant in ELISA IgG ($P = 0.09$).

Contact with domestic animals was found to be non-significant in the transmission cycle.

Eating uncooked or partially cooked meat has been shown to be of great importance in the transmission cycle.

المستخلص للدراسة

أجريت هذه الدراسة ببنوك الدم فى مستشفى الخرطوم و مستشفى ام درمان و مستشفى الخرطوم بحرى التعليمى حيث جمعت عينات مصل من 534 من المتبرعين بالدم، كما أجريت هذه الدراسة فى الفترة من 2011-2013. تراوحت أعمار المتبرعين بالدم قيد الدراسة ما بين18– 56 سنة . وذلك لتشخيص الإصابة بداء القطط.

كانت نسبة المناطق التى جمعت منها العيناتكالتالي: الخرطوم ،(56%)299 ام درمان (22.1%)118 والخرطوم بحرى (21.9%)117 تم أختبار هذه العينات لمعرفة الأجسام المضادة لطفيل المقوسات المعوية كانت النتائج بإختبار التلازن(44%)235 و الإليزاIgG (40.8%)218 و ,IgM 35%)187.

قسمت الاعمار الى سبعة فئات عمرية (18-25),(26-30),(31-35),(36-40),(41-45),(46 -50) (51-56) أوضحت النتائج أن أعلى معدل لإنتشار الطفيل قد تم تسجيله في المتبرعين في الفئة العمرية 18 - 25 سنة، حيث بلغت 36% وأقل معدل انتشار للطفيل قد تم تسجيله في المتبرعين في الفئة العمرية 51-56 سنة حيث بلغت1.3%.

اوضحت الدراسةالتعامل مع الحيوانات الاليفة ليس له دور واضح فى الاصابه بداء القطط.

أوضحت الدراسة ان تناول الحليب الغير مقلي بلنسبة لاختبار التلازن و الإليزا (IgM) له دور في دورة إنتقال الطفيل ، بينما وجدت نسب متفاوتة عند الذين يتناولون اللحوم النية او غير المطهوة جيدا له دور واضح فى الاصابه بداء القطط.

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