

بسم الله الرحمن الرحيم

**Sudan University of Science and Technology**

**College of Graduate Studies**

**Sero-prevalence of Toxoplasmosis in Cattle in El-Gadarif  
State**

الانتشار المصلي لداء المقوسات في الماشية في ولاية القضارف

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# الآية

قال تعالى:

وَقَالُوا هَذِهِ أَنْعَامٌ وَحَرْتُ حِجْرًا لَا يَطْعَمُهَا إِلَّا مَنْ نَشَاءُ بِزَعْمِهِمْ وَأَنْعَامٌ حُرِّمَتْ  
ظُهُورُهَا وَأَنْعَامٌ لَا يَذْكُرُونَ اسْمَ اللَّهِ عَلَيْهَا افْتِرَاءً عَلَيْهِ سَيَجْزِيهِمْ بِمَا كَانُوا يَفْتَرُونَ  
(138) وَقَالُوا مَا فِي بُطُونِ هَذِهِ الْأَنْعَامِ خَالِصَةٌ لِدُكُونِنَا وَمُحَرَّمٌ عَلَى أَزْوَاجِنَا  
وَإِنْ يَكُنْ مِنْ مَيْتَةٍ فَهُمْ فِيهِ شُرَكَاءُ سَيَجْزِيهِمْ وَصَفَهُمْ إِنَّهُ حَكِيمٌ عَلِيمٌ (139)

صدق الله العظيم

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الآيات ( 138-139 )

# Dedication

To who supported and Encouraged me to reach this level.

**My father**

To give me all the happiness and love



**My mother**

To my husband

To my daughters ( Elaf , Abrar )



To my brothers & sister

To my colleges

To my Best friends

( Hatim , hafiz , Sulafa )

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## Abstract

Toxoplasmosis, caused by *Toxoplasma gondii*, is a significant disease in livestock and human. Because of medical and veterinary importance it is essential to study the seroprevalence of *T. gondii* infection among human and animals in various area of the world. The aim of this study was to estimate seroprevalence of *T. gondii* in cattle in Gedarif state .

A three hundred serum samples were collected from four localities :100 from Baldeyat El- Gedarif ,60 from Glabat El-Shargea ,90 from El-fashaga and 50 From Elbutana. Latex Agglutination Test(LAT) was applied to screen all serum samples for Toxoplasmosis while ELISA was also used to confirm the positive result obtained by LAT.

The positive result was (41.3%) and 1% in latex and Elisa respectively. The negative result was (51.7%) in latex and 99% in Elisa. The seroprevelance of *T.gondii* in association with risk factor localities was Al- butana 16.7%, Baldeyat El-Gedarif (33,3%), Al-Fashaga (30%) and Al-Glabat El-Shargia (20%). Seroprevelance of *T.gondii* was higher in female (59.35%) than male (40.7%). Moreover the seroprevelance of disease in 1month to 2 year was (44%), 2-4 year (31%), 4-6 year (23%) and more than 6 year (1,7%). The Ethiopian and Umbararow breeds had low sreoprevelance (19.7%) when compared with Arshay (37%) and Butana (23.7% ).

## الخلاصة

مرض التوكسوبلازما, المسبب بواسطة الطفيل *toxoplasma gondii* من أهم الأمراض التي تصيب الحيوان والإنسان. نسبة للأهمية الطبية والبيطرية للمرض لابد من دراسة نسبة حدوث المرض في العالم. أجريت هذه الدراسة لأجل التحري عن الاجسام المضادة للتوكسوبلازما في مصول الأبقار المتواجدة في ولاية القضارف في اربعة محليات.

جمعت 300 عينة من أربعة محليات مختلفة : 100 من بلدية القضارف, 60 من القلابات الشرقية, 90 من الفشقة و 50 من محلية البطانة. لأجل التحري عن الأجسام المضادة استخدم اختبار اللاتكس التلازني كاختبار مسحي لجميع العينات وأيضاً استخدم اختبار الاليزا كفحص تأكيدي لفحص العينات الموجبة لاختبار اللاتكس التلازني.

العينات الموجبة كانت (3,41%) و 1% بإجراء اللاتكس والاليزا بالترتيب. نسبة ظهور المرض في المحليات التي أجريت فيها الدراسة كانت نتائجها كالاتي (16.7%) في البطانة, (33,3%) بلدية القضارف, (30%) الفشقة و (20%) القلابات الشرقية.

كانت نسبة الإصابة في الإناث (59.35%) أكثر منها في الذكور (40.7%). نسبة الإصابة في عمر شهر- 2 عام (44%), 4-2 عام (31%), 6-4 عام (23%) وأكثر من 6 أعوام (1,7%). أظهرت السلالات الأثيوبية و أمبررو نسبة ظهور منخفضة (19.7%) مقارنة مع سلالتي الأشرى والبطانة (23.7%).