

Acknowledgements

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Dedication

To my father

To my mother

To my brothers and sisters

To my colleagues and friends

To all who have helped me

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Abstract

A cross sectional study was conducted on 264 cattle in Khartoum State, Sudan, during the period extended from March to October 2012. The objective was to estimate the prevalence of anaplasmosis in cattle and to investigate the risk factors associated with the disease. In our study, different in anaplasmosis prevalence among the localities randomly selected were reported. It was 4.2% in Umbedda, 18.2% in Omdurman, 15.8% Sharg Elneel and 26.5% in Jabel Awlia. The overall prevalence was 16.3%.

The following risk factors showed closed associations with anaplasmosis, with significant level (univariate analysis) of ≤ 0.25 : locality (p-value = .153), body condition (p-value=.010), P.C.V (p-value=.000), farm hygiene (p-value=.178), density of ticks (p-value=.079), use of acaricide (p-value=.201), control frequency (p-value=.085), presence of insect (p-value=.010), other animals shared farms (p-value=.092) and vegetation (p-value=.085).

Multivariate analysis showed there was significant association between P.C.V and the disease (P-value= 0.005).

ملخص البحث

أجريت دراسة وبائية علي ٢٦٤ حيوان في ولاية الخرطوم، السودان . خلال الفترة من مارس إلى اكتوبر ٢٠١٢ ، الدراسة تهدف الى تقدير معدل إنتشار مرض انبلازما الابقار والتحقيق من عوامل الخطر المرتبطة بهذا المرض. كانت النسبة الكلية لتفشي المرض في ولاية الخرطوم (16,3%). اظهرت الدراسة اختلاف في معدل انتشار المرض بين المحليات التي اختيرت عشوائياً: جبل الاولياء (26,5%)، امبدة (4,2%)، امدرمان (18,2%) وشرق النيل (15,8%).

باستخدام مربع كاي لتحليل قيمة عوامل الخطر وجدت علاقة معنوية بين حدوث المرض وكل من: المحليات ($P = 0,153$)، الحالة الصحية للحيوان ($P = 0,10$)، محتوى خلايا الدم ($P = 0,000$)، وجود حيوانات اخري في المزرعة ($P = 0,092$)، نظافة المزرعة ($P = 0,178$)، كثافة القراد ($P = 0,079$)، وجود الحشرات ($P = 0,010$)، استخدام الادوية القاتلة للقراد ($P = 0,201$)، عدد مرات استخدام الادوية القاتلة للقراد في الشهر ($P = 0,085$) و الغطاء النباتي ($P = 0,085$). وعندما تم تحليل العوامل المختلفة معنوياً بواسطة التحليل المتعدد لمعرفة درجة الارتباط وجد أن محتوى الكلي لخلايا الدم فقط كانت لها علاقة معنوية بالمرض ($P = 0.05$).