

Acknowledgements

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DeDication

To

My parent

My teachers

My brothers

My sisters

Any person who helped me to successful.

BadriaMagzob

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Abstract

A cross-sectional study was conducted on 300 cattle slaughtered at Dillingslaughterhouse in South Kordofan state, Sudan, during the period extended from November 2014 to January 2015 to estimate the prevalence of *Cysticercus bovis* infection in slaughtered cattle and to investigate potential risk factors associated with the disease.

Routine meat inspection procedure was employed to detect the presence of *Cysticercus bovis* cysts in predilection sites, which were shoulder muscle, heart, masseter (cheek) muscle, lung, tongue and liver. The study showed that the overall prevalence was 9%.

A univariate analysis was performed using the chi-square as a test of significance for the association between the infection and the investigated potential risk factors. A significant association was detected between *cysticercus bovis* infection and each of sex (p-value = 0.102), age (p-value = 0.08), body condition (p-value = 0.025) and grazing type (p=0.00) but there is no significant association between the breed (p-value = 0.861) and animal source (p-value = 0.861).

Multivariate analysis was performed using logistic regression to the significant risk factor. A significant association was detected between, age (p-value .049), type of grazing (p-value = .002) and infection, while no association between, sex (p-value = .366), (p-value = .122) and infection.

Our study showed that the liver and lung were the infected organs, while no infection was found in the rest of the organs.

Macroscopic examination of the 597 cysts (found in 27 affected animals) revealed that 332 cysts (56.11%) were viable, while 262 cysts (43.86%) were calcified.

ملخص البحث

أجريت دراسة إستقطابية على 300 حيوان من الأبقار المذبوحة بمسلخ الدلنج فى ولاية جنوب كردفان، السودان خلال الفترة التى إمتدت من نوفمبر 2014 إلى يناير 2015. كان الهدف من الدراسة تقدير معدل إنتشار مرض الحويصلات البقرية والتحقق من عوامل الخطر المرتبطة بهذا المرض. أجرى التفتيش الروتينى للحوم للكشف عن وجود الحويصلات البقرية فى كل من الكتف، القلب، العضلة الماضغة، الرئة، اللسان والكبد.

تم تحليل البيانات بالتحليل أحادى العوامل بإستخدام مربع كاي لتحليل قيمة عوامل الخطر، وجد أن: الجنس (قيمة $P= 0.102$)، العمر (قيمة $P= 0.08$)، حالة الجسم (قيمة $P= 0.025$)، سلالة الحيوان (قيمة $P= 0.861$)، مصدر الحيوان (قيمة $P= 0.861$) ونوع الرعى (قيمة $P= 0.00$). وجدت علاقة معنوية بين جنس الحيوان، عمر الحيوان، حالة الجسم ونوع الرعى والإصابة بالمرض. ادخلت العوامل التحليل المتعدد بإستخدام اللوجستك، وجد أن: العمر (قيمة $p=0.049$)، جنس الحيوان (قيمة $p=0.366$)، حالة الجسم (قيمة $p=0.122$) ونوع الرعى (قيمة $p=0.002$). وجدت علاقة معنوية بين العمر و نوع الرعى والإصابة بالمرض.

كما أظهرت الدراسة أن الكبد و الرئة هما العضوان المصابان، بينما لا توجد إصابة فى بقية الأعضاء. ومن جملة 597 حويصلة (وجدت فى 27 حيوان مصاب) وجد أن 332 حويصلات (56.11%) حية، و 262 حويصلات (43.86%) متكلس.