

Acknowledgements

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Dedication

*To those who encouraged me
from my birth day till now... to
those who made the impossible,
possible... to those who turned
my life into a better life....
MY PARENTS*

Ahmed Yassir

Table of contents

No	Subject	Page
	Acknowledgement	I

	Dedication	II
	Table of contents	III
	List of tables	VI
	List of figures	VII
	Abstract	VIII
	ملخص البحث	IX
	Introduction	
	Introduction	1
	Justification	2
	Objectives	3
	Chapter One	
	Literature Review	4
1.1	Classification	4
1.2	Etiology	4
1.3	Life cycle	4
1.4	Morphology of cyst	7
1.5	Modes of infection	8
1.6	Diagnosis	9
1.7	Differential diagnosis	12
1.8	Treatment	12
1.9	Control and prevention	13
1.10	Vaccines against bovine cysticercosis	14
1.11	Economic loss	15
1.12	Epidemiology	17
	Chapter Two	
	Materials and Methods	31
2.1	Study area	31
2.2	Criteria for selecting the area	33
2.3	Elobied Slaughterhouse	33

2.4	Study Population	33
2.5	Sampling	34
2.5.1	Sampling Method	34
2.5.2	Sample Size	34
2.6	Study Design	35
2.6.1	Ante-mortem examination	35
2.6.2	Post-mortem examination	36
2.6.3	Examination of the cysts	37
2.7	Statistical analysis	37
	Chapter Three	
	Results	38
	Age of animals	38
	Sex of animals	39
	Breed	39
	Body condition	40
	Source of animals	40
	Grazing type	40
	Location of cysts	41
	Viability of cysts	41
	Chapter Four	
	Discussion	47
	Conclusions	51
	Recommendations	52
	References	53
	Appendix I	60
	Appendix II	62
	Appendix III	66

List of tables

.Table No	Contents	Page
Table 3.1	Frequency table for distribution of <i>cysticercus bovis</i> infection among 200 cattle examined in Elobied slaughterhouse.	38
Table 3.2	Summary of frequency tables for potential risk factors of <i>Cysticercus bovis</i> in 200 cattle examined at Elobied slaughterhouse.	42
Table 3.3	Summary of cross-tabulation for potential risk factors of <i>Cysticercus bovis</i> in 200 cattle examined at Elobied slaughterhouse.	43
Table 3.4	Summary of univariate analysis for potential risk factors of <i>Cysticercus bovis</i> in 200 cattle examined at Elobied slaughterhouse using the Chi- square test.	44
Table 3.5	Multivariate analysis of <i>Cysticercus bovis</i> and potential risk factors in 200 cattle examined at Elobied slaughterhouse.	45
Table 3.6	Anatomical distribution and viability of cysts among .inspected organs	46

List of figures

Figure No	Contents	Page
Figure 1	Life cycle of <i>Taenia Saginata</i> .	6
Figure 2	Caseous cysticercus, Numerous clear transparent cysts on the heart surface.	7
Figure 3	North Kordofan map.	32

Abstract

A cross-sectional study was conducted on 200 cattle slaughtered at Elobied slaughterhouse in North Kordofan state, Sudan, during the period extended from April to June 2013 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, diaphragm, tongue and liver. The study showed that the overall prevalence was 1%.

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. No significant association was detected between *cysticercus bovis* infection and each of sex (p-value = 0.45), age (p-value = 0.32), body condition (p-value = 0.69), breed (p-value = 0.95), animal source (p-value = 0.92) and grazing type (p-value = 0.86).

Our study showed that the liver was the only infected organ, while no infection was found in the rest of the organs.

Macroscopic examination of the 18 cysts (found in 2 affected animals) revealed that 9 cysts (50%) were viable, while 9 cysts (50%) were calcified.

ملخص البحث

أجريت دراسة إستطلاعية على 200 حيوان من الأبقار المذبوحة بصلخ الأبيض فى ولاية شمل كردفان، السودان خلال الفترة التى إمتدت من أبريل إلى يونيو 2013. كن الهدف من الدراسة تقدير معدل إنتشار مرض الحويصلات البقرية والتحقق من عوامل الخطر المرتبطة بهذا المرض. أجرى التفتيش الروتيني للحوم للكشف عن وجود الحويصلات البقرية فى كل من الكتف، القلب، العضلة الماضغة، الحجاب الحاجز، اللسان والكبد.

تم تحليل البيانات بالتحليل أحلى العوامل بإستخدام مربع كلى لتحليل قيمة عوامل الخطر، وجد أن: الجنس (قيمة $P= 0.45$)، العمر (قيمة $P= 0.32$)، حالة الجسم (قيمة $P= 0.69$)، سلالة الحيوان (قيمة $P= 0.95$)، مصدر الحيوان (قيمة $P= 0.92$) ونوع الرعى (قيمة $P= 0.86$). لم توجد علاقة معنوية بين أى من عوامل الخطر والإصابة بالمرض.

كما أظهرت الدراسة أن الكبد هو العضو الوحيد المصاب، بينما لا توجد إصابة فى بقية الأعضاء. ومن جملة 18 حويصلة (وجدت فى حيوانين مصابين) وجد أن 9 حويصلات (50%) حية، و 9 حويصلات (50%) متكلسة.