

Acknowledgement

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This research would not been completed without the support of my colleagues and friends.

Dedication

To my father and mother

To my wife Mona Abaker

My lovely sons

Mohamed.

Morad.

Mohsen

and

Manar

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Abstract

An abattoir survey was conducted on 192 sheep slaughtered at Elkadaro abattoir in Khartoum, Sudan, during the survey period from March to April 2015. The objective was to estimate the prevalence of hydatid cysts in sheep and to investigate risk factors associated with the disease. Routine meat inspection procedure was employed to detect the presence of the hydatid cysts in visceral organs (liver, lung and peritoneum). Selected sheep were originated from three states: Khartoum, Blue Nile and Elgedarif. The overall prevalence of hydatid cysts was 3.1%. The distribution of hydatid cysts infection according to age of sheep was: 0% in young animals < 2 year and 6.7% in old animals ≥ 2

years. The distribution of hydatid cyst infection according to the area (origin) of sheep was: 9.6% in Blue Nile, 0% in Khartoum and 1.1% in Elgedarif. For body score, the prevalence was: 1.7% in animals in good body score and 5.5% in animals in poor body score. Regarding distribution by sex, the prevalence of hydatid cyst was: 2.45% in female and 6.9% in male.

Using the Chi-square for analysis, this study found significant association between hydatidosis in sheep and each of the following risk factors: age of animal (p - value = 0.007). origin of animal (p - value = 0.007) and location of cyst (p-value = .044). Other risk factors investigated were not found significant.

Our study showed that liver was the most infected organs, 45.5% were in liver only, 27.3% were in lung only, 18.2% of cyst infected both liver and lung together (mixed infection) and 9% were in muscle

Microscopic examination of the 11 cysts revealed that 8(72.7%) were fertile cysts, 2 (18.3%) were sterile cysts and 1 (9%) were calcified cysts. Within fertile cysts, 6 (75%) cysts were viable and 2 (25%) cysts were not viable . Regarding the volume of cysts 5 (45.5%) of cysts were 2 - 3 ml, 4 (.36.3%) were <2 ml and 2 (18.2%) were > 3 ml.

ملخص

أجري المسح على 192 من الضان المذبوح في مسلخ الكدرو في الخرطوم ، السودان ، خلال فترة الدراسة التي امتدت من مارس إلى ابريل 2015. كان الهدف هو تقدير

معدل انتشار الاكياس العدارية في الضان والتحقيق في عوامل الخطر المرتبطة بهذا المرض. كان العمل الروتيني- هو إجراء التفتيش على اللحوم للكشف عن وجود الاكياس العدارية في الأجهزة الحشوية (الكبد والرئة والغشاء البريتوني). وقد نشأت الأغنام المختارة في ثلاثة ولايات: الخرطوم والنيل الأزرق والقضارف. كان معدل انتشار الكلى لمرض الاكياس العدارية 3.1%.

وكان توزيع عدوى الاكياس العدارية وفقا لعمر الضان كما يلي : 0 % في الحيوانات الصغيرة سن اقل من 2 سنة و 6.7% في الحيوانات الكبيرة سن اكبر من او يساوي 2سنة ، وكان توزيع العدوى وفقا للولاية (الأصل): 9.6 % في ولاية النيل الأزرق . 0% في ولاية الخرطوم و 1.1% في ولاية القضارف. أما بالنسبة لحالة الجسم ، كان الانتشار : 1.6 % في الحيوانات في حالة جيدة و 5.5 % في الحيوانات في حالة ضعيفة.

التوزيع حسب الجنس كانت معدل الانتشار 2.45% في الإناث 6.9% في الذكور. الفصل باستخدام مربع كاي للتحليل وجدت هذه الدراسة ارتباط معنوى بين- الإصابة بالاكياس العدارية في الضان وكل من عوامل الخطر التالية : عمر الحيوان)

p قيمة = 0.007) والاصل (p قيمة = 0.007). وموقع الاكياس (p قيمة = 0.044).

ليس هنالك ارتباط معنوى مع عوامل الخطر الأخرى.

اظهرت الدراسة أن الكبد هو أكثر الأجهزة المصابة %45.5 تليها الرئة %27.3 ثم

الكبد والرئة معا (عدوي مختلطة) % 18.2 واخيرا العضلات %9 . واكدت كشف

الفحص المجهرى لاحدي عشرة كيس عدارى, 8 (%72.7) اكياس خصبة ، 2 (% 18.3)

اكياس عقيمة و 1 (%9) اكياس متكلسة. ضمن الاكياس الخصبة ، كانت 6 (% 75) من

الاكياس قابلة للحياة و 2 (%25) من الاكياس لم تكن قابلة للحياة. فيما يتعلق

بحجم وطبيعة الاكياس العدارية: 5 (% 45.5) من الاكياس ما بين 2-3 مل ، 4)

(%36.3) من الاكياس > 2 مل، 2 (%18.2) من الاكياس < 3 مل و 1 (% 9.1) من

الاكياس كانت متكلسة.