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Prevalence And Economic Tracks Of Hydatidosis In Slaughtered Camels

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Abstract

A total 480 slaughtered camels were inspected for the presence of hydatid cysts and it was found that 160 (33.38%) camels were infected. The rate of infection among male and female were 35.18 % and 21.54% respectively .The fertility of the cysts were 66.5%.The prevalence of cysts among aged and young camels were 35.71%, 31.48% respectively. The lungs and liver were the target organs of the parasite which appeared rate of infection 73.7% and 40.6% respectively . The economic, public health and control of the disease were discussed.

الخلاصة

تم فحص 480 ذبيحة جمل للتحري عن انتشار الأكياس العدرية, وتبين إن 160 ذبيحة منها (3.33%) كانت مصابة. كانت نسبة انتشار الأكياس بين الذكور والإناث (35.18%) و (21.54%) على التوالي, وكان 66.5% من هذه الأكياس هي من نوع الخصب. دلت النتائج بان نسبة الإصابة في الجمال المسنه (35.71%) أعلى من تلك الفتيه (31.48%). كما ظهر إن الرئتين والكبد هما العضوان الأكثر تعرضاً للإصابة بالأكياس العدرية وكانت نسبة الإصابة بهما (73.7%) و (40.6%) على التوالي. نوقشت الأهمية الاقتصادية والصحية وطرق السيطرة على هذا المرض في الجمال.

Introduction

Hydatidosis is one of the most important endemic zoonotic parasitic diseases in the middle east[Matoossian *et al*, 1977]. The meat producing animals in lraq, such as sheep, goats, cattle and camels have been repeatedly found infected with hydatid cysts [Imari,1962, Babero *et al*, 1963,Altaif, 1974, Al-Abbasy *et al* 1980, Wajdi and Nassir, 1983, Al-Saqur and Al-Jorani, 1987, Al-Azawi *et al*, 1988, Al-Zaidi,1990]. Hydatidosis in such animals leads to significant financial loss due to total condemnation of heavely infected carcasses and/or their edibles offals [Thoronton and Gracey, 1974]. Nowadays there are reasonable numbers of camels slaughtered at Baghdad abattoirs for meat production. The present study aimed to throw a light on the prevalence ,distribution and fertitity of hydatid cysts in slaughtered camels at Baghdad abattoirs and also estimation the financial loss dus to condemnation of their infected livers.

Materials and Methods

Four hundred and eighty camel carcasses were inspectd for hydatid cysts form Feb, 2004 to Jan, 2005 ,Dentation was used for the estimation of Slaughtered camel ages .The cysys fluid were examined microscopically to determine their fertitity by visualization the scolicies and daughter cysts [Himonas *et a*l,1987].The weight of camel liver was calculated on the base of the mean weight of ten livers ,and the economic loss estimated as Iraqe diner (I.D.) ,only due to condemnation of total liver. The slaughtered camels were derived from various parts of the country.

Results

The rate of infectinon with cysts in young animals and in older ones was 31.48% and 35.71 respectively (table)1. The fertility rate of the cysts was found to be 66.5%. Lungs and livers were the most commen infected organs with cysts. The rate of infection were 73,7%, 40,6%, 1,8%, and 0.6% in lungs ,livers, spleen and kidney respectively

(table2).Almost the economic loss due to only total liver condemnation was about 1953000 I.D / year, these calculation were based on the price of 1Kg liver in the time of study which was around 6000 I.D .and the mean weight of condemned liver was 3.8 + o.15 kg.

Discussion

Previous studies shown variable prevalence rate of hydatid cysts in camels. Imari,(1962) stated that 75% of slaughtered camels were infected. Altaif (1974) that found 56%were infected. Recently Al-Zaidi (1990) and Al-Fattlawi (2002) reported that 34. 1%,35.2% were infected respectively. Comparing these results with the results of this study, it appeared that the prevalence of hydatid cysts in camels was decreased. This could be due to either the improvement of management condition, improved veterinary services and less contact with infected dogs.

The maintanence of the cysts in man and animals, generally comes from keeping dogs harbours infection ,and this be true in case of camels,since most of the bedauin raising dogs for garding their camels, and in direct contact with them. The results of this study shown an obvious effect of age on the rate of infection with this parasite, and this in accordance with whate had been reported by Lotfi *et al*, (1994). The results in table 2 reveald that the target organs for this parasite were lungs and liver, this in agreement with what had been pointed out by Llotfi, *et al.*, (1994), in the mean time, the fertility rate of cysts which encountered in slaughtered camels was significantly high (66.65%) and this suggests the importance of the camels in maintaining the life cycle of this parasite.

In meat inspection ,the heavily infected carcasses and/or edible organs with cysts unfit for human consumption, should be condemned [Thoronton and Gracey, 1974], hence we tried here to estimate the economic loss only due to totally condemned infected livers. In many developing countries many measures had been practice in order to control on the infection of man and animals with this diseases, from these measures, regular and annual deworming of pets especially dogs and cats,fed them on cooked meat, elimination of straid canine, and efficient disposing of infected carcasses and their organs as well as continuous programs of general public health education .

Table(1):-Infection-rate of hydatid cysts in slaughtered camels. Y= young, A=adult

Sex	Age	No, Examined carcasses	No, of positive carcasses	%
Female	Y	15	3	20
	A	50	11	22
	Total	65	14	21.54
Male	Y	255	82	32.16
	A	160	64	40
	Total	415	146	35.18
	Final Total	480	160	33.3

Table(2):-Distribution of hydatid cysts in infected Carcasses. Y=young, A=adult

Sex	Age	No. of organs infected with hydatid cysts.				
		Liver	Lung	Liver and Lung	Spleen	Other organs
Female	Y	1	2	0	0	0
	A	3	4	2	1	1(Kidney)
	Total	4	6	2	1	1
Male	Y	9	50	23	0	0
	A	17	27	10	8	2(Kidney)
	Total	26	77	33	8	2
	Final Total	30	83	35	9	3

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