A SURVEY ON CAMEL HYDATIDOSIS IN NAJAF ABATTOIR

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ABSTRACT

The offal's of (380) slaughtered camels were examined for Hydatidsis in Najaf abattoir between January and December (2002). The total incidence of infection was (17.9%) and it was much higher in older camels (19.23%) while it was (9.16%) in younger ones.

The distribution of cysts in lungs, livers, and spleens was (16.5%), (1.57%), and (0.53%) respectively.

The fertility rate was (50.2%) which reflect their significance in the epidemiology of the parasite and reveal that those dromedaries Hydatidosis could play a significant role in the epidemiology of infection.

INTRODUCTION

Hydatidosis caused by the larval stage of the tapeworm *Echinococcus granulosus* is one of the most important parasitic zoonosis in Iraq [1,2,3].

There were some works, concerning the incidence and prevalence of the disease among domestic animals, a high incidence was recorded in camels by [3,1] it was regarded as scanty incidence.

Camels was proclaimed to be one of intermediate hosts that harbour a high percentages of fertile cysts, enabling their meat to be important source of infection [4,5,6,7,8,9].

This work was designed to assess the present status of *Echinococcsis* in camel's population of Iraq, particularly in Najaf governorate and their neighborhood, with an emphasis on the morphometry, lesion distribution, and the percentage of fertile hydatid cysts in this desert animals.

MATERIALS AND METHODS

The offals of (380) slaughtered camels from Najaf abattoir were examined between January and December of (2002) for the presence of Hydatid cysts and morphological investigation which involved size, type, and condition of the cysts.

Fertile cysts contain protoscolices and/ or daughter cysts; whereas calcified ones like sterile ones contain neither protoscolices nor fluids but contain a cheese like material with calcium deposits and bacterial growths.

Microscopic examination using stereomicroscope on cysts preserved in (10%) formalin and opened in Petri-dishes, Were carried out within 24 hours of slaughtering for the presence of protoscolices.

RESULT AND DISCUSSION

This study revealed that: - the percentage of infection with Hydatid cysts in camels was (17.9%), and such result was much less than that reported by [5,6,9] and this could be attributed to the higher number of animals examined in this study.

The incidence was (19.23%) among those camels over 5 years old, while it was (9.16%) among young ones below 5 years and this explain that the age of camels play an important role in the rate of infection.

In concern with the incidence of affected organs (table 1) lungs, livers, and spleen had a percentages of (16.5%), (1.57%), and (0.53%) respectively, meanwhile the percentages were (1.57%) in both lungs, whereas they were (0.26%) in lung, liver and spleen collectively… these result were similar to that found by [4 and 5].

Lung cysts were mostly round shape (70.6%), oval shaped (18.8%) and of variable shape (8.2%), while liver cysts were rounded in (50%), and oval shape in (27.3%).

Superficial cysts were more frequent (74.1%) than those in the parenchyma (25.9%) and these results are in agreement with [9].

The fertility rate of examined Hydatid cysts was (50.2%) as shown in table (1 and 2) which reflects their significance in the epidemiology of the parasite and they simulate the result obtained by [5].

It was concluded that dromedaries Hydatidosis could play a significant role in the epidemiology of *Echinococcus* infection.

Table 1: Distribution of cysts in the organs of camels slaughtered at Najaf abattoir

Age of animal	Total animals examined	Number of infected organs and its percentages					
		Lungs	Livers	Spleen	Lung and liver	Lung and spleen	Lung and liver and spleen
Under 5 Years	120	11 (9.2%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Over 5 years	260	50 (19.2%)	6 (2.3%)	2 (0.8%)	6 (2.3%)	1 (0.4%)	1 (0.4%)
Total	380	61 (16.5%)	6 (1.57%)	2 (0.53%)	6 (1.57%)	1 (0.26%)	1 (0.26%)

Table 2: Morphology of Hydrated cysts and its percentages in different organs of camels

Organ	No. of cysts	Shape			situation	
		round	oval	variable	surface	parenchyma
Lung	85	60 (70.6%)	16 (18.0%)	7 (8.2%)	63 (74.1%)	22 (25.9%)
Liver	22	11 (50 %)	6 (27.3%)	5 (22.7%)	18 (81.8%)	4 (18.2%)
Spleen	4	2 (50 %)	2 (50 %)	0 (0 %)	3 (75 %)	1 (25 %)

Table 3: Measurements and Sizes of Cysts from different organs of camels

Organ	Measurements (cm)			Sizes (ml)		
	Min	Max	Mean	Min	Max	Mean
Lung	1.2x1x1	10x7x6	5.1x2x2.8	0.8	276	20.3
Liver	1x0.7x0.3	6x3x2	4x2x2.1	0.3	95.2	12.6
Spleen	1.2x0.8x0.7	2x1.1x0.8	1.5x0.9x0.7	0.5	1.3	0.7

Min = minimum
Max = maximum
MI = milliliter

مسح لداء الأكياس المائية العذرية في الإبل في مجزرة النجف

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الخلاصة

تم إجراء فحص ما بعد الذبح للبحث عن داء الأكياس المائية العذرية في الأعضاء الداخلية لـ (380) رأس من الآبل في مجزرة النجف للفترة المحصورة بين شهر كانون الثاني وكانون الأول لعام 2002 وقد وجد بأن نسبة الإصابة الكلية بهذا الداء هي (17.9%) وقد كانت هذه النسبة أعلى في الإبل الأكبر سنا (أكبر من 5 سنوات) بينما كانت (9.16 %) في الإبل الأصغر سنا، وكانت نسبة توزيع الأكياس في الرئتين ، الكبد ، والطحال هي (16%) ، (1.57 %) ، (0.53 %) حسب الترتيب.
وقد وجد بأن نسبة الخصوبة في هذه الأكياس هي (50.2 %) والذي يعكس أهميتها في وبائية هذا الداء، مما يشير إلى أهمية الإبل في انتشار داء الأكياس المائية العذرية.

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