PREVALENCE OF HYDATIDOSIS AND HEPATIC FASCIOLIASIS IN SLAUGHTERED ANIMALS AT BASRAH ABATTOIR

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ABSTRACT

Astudy on the occurrence of hydatidosis and liver fluke infection in slaughtered animals was carried out overyear (1999_2000) at basrah abattiors . the study carried 1851 sheep ,655 cattle and 172 buffalo. The study showed 134 (7.2%) ,55 (8.3%) and 64(36 . 5 %) had hydatid cyst respectively . the frequency of the cyst in lung 63(47.01%) ,29(52.72%) and 31 (48.4%) in inspected animals (sheep ,cattle and buffalo) while in liver 71(52.9%) ,36(65.4%) and 33(51.5%) respectively also animals had been inspected for hepatic fascioliasis of 51(2.75%) ,29 (4.42%) and 28 (16.2%) respectively .

the rate of infection had also been reported according to seasonal variation among the sam species of animals,the study showed high infection rate with hydatid cyst in sheep,cattle and buffalo in spring (3.3%) , (5.4%)and (26%) respectively.while infection rate with fascioliasis is high in sheep(3.2%) and buffalo(22.9%) in winter.

INTRODUCTION

Hydatidosis azoonotic disease caused by dog tapeworm of the genus Echinococcus . it is one of the most important cestode infection of man , domestic and wild animals (1) ,and it is widly distributed all over the wold (2).also it is endemic disease and is considerd to be one of the most serious parasitic disease in the country(3).

Fascioliosis considered as an endemic disease in southern Iraq and the high finacial losses of liver fluke disease may be partialy due to death of the diseased animals (4,5).

Generally the economic importance of this disease is related to the losses of dead infected animal, reduction in milk production, loss in animal wieght, bad wool quality and cost treatment of diseased animals (6, 7).

Consequently several studies in Iraq connected over these diseases in Basrah, Baghdad, Mosul and Diwania (6, 8, 9, 10).

The present study was carried out to investigate the prevalence of animal hydatidosis and fascioliasis in Basrah slaughter House .

MATERIALS AND METHODS

Present study was carried out in Basrah abattoir between January 1999 to January 2000. of different ages and sexeses . The number of animals 1851 sheep, 655 cattle and 172 buffalo were Examined after slaughter for hydatid cyst and liver fluke infection .

Percentage of infections with hydatid cyst and fasciola was reported and frequencsy of cyst in lung and liver, as well as seasonal distribution was studed .

RESULTS

Results of table (1) shows the number and percentage of infection with hydatidcyst and fasciola in sheep, cattle and buffalo. The rats were 7 .2% sheep, 8 .3 % cattle and 36.5 % buffalo.

Als shows rates of liver fluke infection 2.75 % sheep, 4.42% cattle and 16.2 % buffalo, the location of the cyst according to organs as follows in lung 47.01% sheep, 52.72% cattle and 48.4% buffal., whcrea in the liver 52.9 % sheep, 65.4 % cattle and 51.5 % buffalo.

Mixed infection were recorded with hydatid cyst and liver fluke in these animals sheep 38(2.05%) cattle 21(3.20 %) and buffalo 19 (10.85%) . The seasonal prevalence were reported in table (2),the high infection rates with fascioliasis in sheep (3.2%) and buffa 22.9%) in winter,and light infection rates during autumn (1.6%) and(7.1%) while thehigh infection rate with hydatidosis in sheep , cattle and buffalo were reported during spring (3.3%), (5.4%) and (26%) respectively .

DISCUSSION

The prevalence of hydatiosis in ruminants in Iraq varies considerably according to many factors such as the geographical locations and the epidemiology of the tapeworm (11). The results in present study were differ from many studies which were carried in different Iraqi provinces. In study of (12) at Basrah abattoirs revealed that the percentage of hydatid cyst infection 3 .43% in sheep,1.23% in cattle and 3.96% in buffaloes. whearas (13) reported the infection rate of hydatid cyst of sheep in south of iraq was 6.91%.and the infection rate of cattle in Basrah 11.1% reported by (14).the rate of hydatid cyst infection of the same species of our study was reported by (9) in Dewania 16.3 in sheep and 1.7 in cattle.

Also the prevalence of hydatidosis and fascioliasis were lower than those reported by (15) she found 9.4% and 155% in sheep between July 1992 to June 1993 in Baghdad respectively.

Whereas (16) reported the infection with hydatid cyst , in Mosul 9.94 in sheep and 8.9 in cattle infected with hydatid cyst and concerning the lung and liver infection in our result are higher than that reported by (11), 12.5% of lung and 6.1% of sheep liver, while 20% of lung and 7.9% of cattle livers.

Also the rates of infection of both lung and liver were higher than those reported by (16), 18.8% of lung and 43.9% of sheep liver and 30.6% of lung and 52.1% of cattle liver.

The light rates of infection with hydatidosis in the last year may be due to irradication programs for stray dogs, restricted of slaughter animals out side the abattoirs and increase hygienic condition inside the abattoirs represented with condemnation infected organs.

On the other hand the rate of liver fluke infection in buffalo16% This result is much lower than reported by (17), 70 % in Baghdad abattoirs.

In study of (10) in Basrah the infection rate with fasciola spp.are 45.6%, 25.7%and 6.5% in buffaloes, cattle and sheep respectively.

Also (18) in Mosul reported the infection rate 44% in buffalo, While in sheep was more Lower than that reported by (15), 15% in Baghdad. Whereas we found the rate of sheep infection was quit close to (13) they reported 2.5%. However the light infection may be due to intense veterinary prophylaxis program for liver fluke in the last year and dried swampy land and lakes or lower numbers of animals slaughtered. The seasonal distrbutions of infection with hydatid cyst and liver fluke shows a higher infection rates with fasciola in winter in both sheep and buffalo 3.2% and 22.9 % respectively, while the lower infection rate in A autumn 1.6% and7.1 % respectively .The rates of hydatidosis in buffalo and cattle higher in spring 26 % and 5.4 % respectively and lower in Autumn 9.8 % and 2.04 % respectively may be due to accumulation of lakes and starting animals grazing .

Table(1) The prevalence of hydatisosis and liver fluke infection in Slaughtered imals

Animal species	No.of examined animals	No.,% of infection with hydtidcyst	No.% of infection with fasiciolaspp	Frequency of the cyst		Mixed infection hydatied and fasciola
				lung	liver	
sheep	1851	134(7.2)	51(2.75)	63(47.01)	71(52.9)	38(2.05)
Cattle	655	55(8.3)	29(4.42)	29(52.72)	36(65.4)	21(3.20)
Buffalo	172	64(36.5)	28(16.2)	31(48.4)	33(51.5)	19(10.85)

Table (2): Seasonal distribution of hydatisosis and liver Fluke infication in slaughtered animals.

Season	% of infected with Fasciola spp.			% of infected with hydatidegs		
	Sheep	cattle	Buffalo	sheep	cattle	Buffalo
Winter	3.2	3.2	22.9	3.9	3.8	18.3
Spring	3.1	5.3	21	3.3	5.4	26
Autumn	1.6	3.6	7.1	2.3	2.04	9.8
Summer	2.6	8.3	20	3.5	4.4	16

مدى انتشار الإصابة بالأكياس المائية وديدان الكبد في الحيوانات المذبوحة في مجزرة البصرة

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الخلاصـــــــة

درست نسبة الإصابة بالأكياس المائية وديدان الكبد في الحيوانات المذبوحة في مجزرة البصرة خلال سنة كاملة (١٩٩٩_٢٠٠٠) شملت الدراسة ١٨٥١من الأغنام و٦٥٥ أبقار و١٧٢ جاموس ،اوضحت الدراسة إن ١٣٤ (٧ ،٠٢ %) و٥٥ (٣, ٨ %) و٦٤ (٥ , ٣٦ %) مصابة بالأكياس المائية على التوالى.

وسجلت نسبـــــة إصابـــة الرئة بالأكيـــاس المائية ٦٣(٠١ , ٤٧ %) و٢٩ (٧٢, ٥٢ %)و٣١ (٤ , ٤٨ %) في الحيوانات المفحوصة (الأغنام والأبقار والجاموس)بينما كانت إصابة الكبـــد ٧١ (٩, ٥٢%) و٣٦(٤ .٦٥ %) ٣٣ (٥ ,٥١ %) على التوالي كذالك فحصت الحيوانات لدراسة نسبة الإصابة بديدان الكبد حيث كانت ٥١ (٧٥ ,٢ %) و٢٩ (٤٢ ,٤ %) و٢٨ (٢ ,١٦ %) على التوالى .

وكذلك سجلت الإصابة تبعا لاختلاف الفصول في حيوانات الدراسة حيث بينت الدراسة إن معدل الإصابة بالأكياس المائية للحيوانات كان مرتفع خلال فصل الربيع (٣ ,٣ %) و(٤, ٥ %) و(٢٦%) على ا لتوالي بينما كان معدل الإصابة بديدان الكبد كان مرتفع في الأغنام (٢ , ٣ %) والجاموس (٩ , ٢٢ %) في فصل الشتاء.

REFERENCES

1. Lymbery, A. J. and Thomppson ,R. C. A.(1988) . Electrophore analysis of genetic variation in Echinococcus granulosus from domestic host in Australian Int. J. Parasitol. ,18: 803-811 .

2. AL_Hadithi I. And Habbash, A. (1987) . Textbook of parasitology. 1st ed published in MosulUniversity. Pp:129.

3. E lhassani,N. B. (1985). Pulmonary Hydatia Disease. Helminthology. Pp:44-93 .

4. Mahdi, N. K. and AL –Baldawi, F. A. K. (1987). Hepatic fascioliasis in the abattoirs of Basrah. Annals of Topical Medicine and Parasitology. 8 :377_379.

5. Reid,J. F. S. (1973) . Fascioliasis : clinical aspects and diagnosis .In:Helminth diseases of cattle, sheep and horses in Europ. GMU rquhard and J. Armour (Eds.)Glasgow :Report Maelehose and colted. 81 – 86 .

6. AL-Taif, K. I. (1974) .Helminths in camels in Iraq.Trop. Anim. High. Pro.6 : 55-57 .

7. AL- Naamy , R. A. S. (1978).Studied on some aspects of ovine Fasciolasis in Iraq.M.Sc.Thesis, University of Baghdad. College of Vet. Med .

8. AL-Ábbassy, S. N. ,AL- Taif , K. I. ,Jawad ,A. K. (1980) .The prevalence of hydatid cyst in slaughtered animals in Iraq. Annuals of Tropical Medicine and Parasitology. 74, 2 ,185-187 .

9. Dawood,K. A. Abed ,A. H. ana Taheer,F. H. (1995). Incidence of human and animal hydatidosis in Diwania area. The Veterinarian .1, 4 : 138-145 .

10. Awad , A. H. H. and Suzan , A. A. AL-Azizz . (2000) . Survey on Fascoila gigantica in slaughterd animals in Basrah abattoir . .J .Basrah Res , 24 ,1 : 45 –53 .

11. AL-Sultan ,I. I. ; AL-Khalidi ,n. w. and AL-Aboudi ,A. R. (1987) .Astudy on hydatid disease of sheep and cattle in Mosul (Iraq) .Zagazig .Vet. J. 2 :179-193 .

12. Benyan ,Ab. K. Z. and Mahdi ,N. K.(1987) .Pulmonary hydatid cyst in man and his live stock in soythern Iraq .Saudi . Medi . J .8 ,4 : 403 _406 .

13. Dhari ,A. ;Taha ,S .A and Avadesian ,G . A . (1997) .Prevalence of hydatidosis and Fascioliasis in Iraq .The Veterna . 6,7 .1 :23-28 .

14. AL-Haiowy .B . H . (1988). Some pathoiogical effect that caused by Echinococcus in medial host .MSC. Thsis Colleg Of Scintefic .University of Basrah .

15. AL-Dabagh ,A . T . (1997) .Infection of liver with parasitic helminths in sheep and goats in Baghdad abattoirs .The Veterina .6 ,7 .1: 6-10 .

16. Jarjees ,M . T . ; Hasan ,A . A . and Sanjary ,R . A . A. (1998) .Observation on the prevalence of hydatidosis in slaughtered animals at Mosul abattoir .Iraqi J .Of Veterin . Scie .11,1 :57-60 .

17. AL-Barawari ,S . R . (1978) .Survey on liver infection with Fasciola gigantica among slaughtered animals in Iraq .Bull . End .Dis .18 :75-95 .

18. Jarjees ,M . T . ;AL-Sultan I . I . and Tai ,A . F . (1999) . Prevalence of Fasciola gigantica in slaughtered water buffalo at Mosul abattoir (Iraq).Iraqi J .Of Veterin . Scie .12 .2 :317 – 323 .