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THE PREVALENCE OF HYDATID CYSTS IN SLAUGHTERED ANIMAL IN IRAQ

A. Al-Azawi, S. Al-Taee and M. Al-Zuhairy, Department of Veterinary Public Health, College of Veterinary Medicine, University of Baghdad, Iraq.

SUMMARY

The prevalence of hydatidosis in sheep, goats and cattle, slaughtered at Baghdad Abattoir, was recorded over a period of 14 months. The infection rates were found to be 5.3%, 5%, and 5%, respectively. These rates were generally lower than had been reported in previous studies. The lower prevalence rates were attributed to the elimination of stray dogs, improved standards of meat inspection and the improvement of the living standard. The fertility rate of the cysts was higher in sheep than in goats. All the cattle cysts were sterile.

INTRODUCTION

Hydatidosis is one of the important endemic, zoonotic, parasitic disease in Middle East (Matossion *et al.*, 1977).

In meat animals, it leads to significant financial loss due to condemnation of the affected carcasses and edible offal. Sheep, goats, cattle, camels, pigs and donkeys have been repeatedly found infected with hydatid cysts in Lebanon, Syria, Kuwait, Jordan and Saudi Arabia (Pipkin *et al.*, 1951; Babero *et al.*, 1963;

Luttermoser and Koussa, 1963; Dailey and Sweatman, 1965; Hassounah and Behbehani, 1976; Matossion *et al.*, 1977; Dajani, 1978; Dajani and Khalaf, 1981; Al-Yaman *et al.*, 1985).

In Iraq, Al-Abbassy *et al.*, (1980) and Wajdi and Nassir (1983) studied the prevalence of hydatidosis in animals slaughtered at abattoir in Baghdad. However, the improved veterinary services and the standard meat inspection in abattoir carried in our country should be reflected on the prevalence of the parasitic diseases, one of these is hydatidosis.

The present study reports the prevalence, distribution and fertility of hydatid cysts in animals slaughtered for human consumption in Baghdad abattoir.

MATERIALS AND METHODS

A total of 2000 sheep, 400 goats and 300 cattle slaughtered at Baghdad abattoirs between September, 1985 and November 1986 were examined for the presence of hydatid cysts. The fertility of the cysts was determined by microscopic examination of cyst fluid for the presence of scolices, brood capsules and daughter cysts. The cattle, sheep and goats originated mainly from the central area of Iraq.

RESULTS

A total of 2700 slaughtered animals were examined (table 1). The infection with hydatid cysts in 2000 sheep mainly Awasi breed was 106 carcasses (5.3%), 103 having cysts in both of the liver and lung. All sheep ages except those which were under one year old were infected. The percentage of fertile cysts was 21.5%. Twenty goats (5%) were infected with hydatid cysts and only nine (2.25%) had fertile cysts. Only 15 (5%) of 300 inspected

Table 1: The prevalence of hydatid cysts in slaughtered animals

Animal species	Age years	No. examined	No. infected	Rate of infection	Type of cyst						
					Fertile	Sterile	Calcified	Lung	Liver	Liver and Lung	Carcases
Sheep	0.5-1	500	0	0	0	0	0	0	0	0	0
	1-2	500	36	7.2	16	20	0	12	15	6	3
	2-3	500	40	8.0	17	21	2	5	20	15	5
	3-4	500	30	6.0	10	17	3	7	13	10	0
	0.5-4	2000	106	5.3	43	58	5	24	48	31	8
Goats	0.5-4	400	20	5	9	10	1	3	8	9	0
Cattle	1-5	300	15	5	0	11	4	2	11	2	0

cattle were infected and all cysts were sterile. Although the liver of cattle seems to be the target of the cysts, but two cases had cysts in both the liver and lungs. Sheep muscles had the highest rate of infection (0.4%), no cysts had been seen in neither cattle nor goats muscles.

DISCUSSION

Previous studies have shown variable prevalence of hydatidosis in slaughtered animals in Iraq. Senekji and Beattie (1940) affirmed that the infection rates were 12% in sheep, 25% in goats, 25% in cattle. Imari (1954, 1962) reported that 32% of sheep, 40% of goats, 20% of cattle, 50% of buffaloes and 75% of camels had been infected. Babero *et al.*, (1963) claimed that the infection rates with hydatidosis were 29.5% in sheep, 26.6% in goats, 13.9% in cattle, 35.6% in buffaloes and 49.1% in camels. The rates of 56% and 35% in camel carcasses were reported by Altaif (1974) and Hassounah and Behbehani (1976) respectively. Al-Abbassy *et al.*, (1980) found that 5.9% of sheep, 5.1% of goats, 4.9% of cattle and 20.4% of camels were infected. Recently, Wajdi and Nassir (1983) reported that 4.6% of sheep, 5.1% of cattle and 72% of camels slaughtered in Baghdad abattoirs were infected.

In this work we excluded camels, because it is no longer slaughtered in Baghdad abattoirs since 1983. Comparing these results with ours, it appears that the prevalence of hydatidosis in slaughtered animals in Iraq has been obviously decreased. This sharp decrease may be attributed mainly to the campaign for the elimination of stray dogs and cats, undertaken by the Directorate of Veterinary Services in Iraq to control some zoonotic diseases. This may have big help to control hydatidosis,

on the other hand, the standard of meat inspection in abattoirs and the hard attempt of the Veterinarian to improve it must have direct effects on controling hydatid cyst infection. In addition there has been a considerable improvement in living standard which may contribute for certain extent in the reduction of infection with hydatid cyst.

No hydatidosis was seen in lambs under one year of age. This might be related to the lengthy period required for the development of a detectable cysts (Al-Abbassy *et al.*, 1980).

The prevalence of hydatid cysts in slaughtered animals in neighboring countries almost higher than the figures recorded in the present study. (Hassounah and Behbehani, 1976; Al-Yaman *et al.*, 1985).

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نسبة الاصابة بالاكياس المائية في ذبائح الماشية

عباس العراوي، صباح الطائي ومشعان الزهيري، فرع الصحة العامة البيطرية، كلية الطب البيطري، جامعة بغداد، العراق.

الخلاصـــــة

اوضحت نتائج هذه الدراسة التي استغرقت حوالي ١٤ شهرا ان نسبة الاصابة بالاكياس المائية في ذبائح الماشية كانت ٣ر٥٪ من ذبائح الاغنام و ٥٪ من ذبائح الماعز و ٥٪ من ذبائح البقر. ان هذه النسبة هي اقل مما سجلتها دراسات سابقة في نفس الموضوع. وان مثل هذا الانخفاض في نسبة الاصابة هو نتيجة الجهود المكثفة التي بذلتها الجهات البيطرية بالسيطرة على الكلاب السائبة اضافة الى التحسن الملحوظ في الفحص الروتيني للذبائح وكذلك للدور الواضح للمستوى المعاشي المتقدم للفرد العراقي. لقد كانت نسبة الاكياس الخصية في ذبائح الاغنام اعلى منها في ذبائح الماعز، ولم يشاهد كيس خصي في ذبائح الابقار.