http://www.pjbs.org

PJBS

ISSN 1028-8880

Pakistan Journal of Biological Sciences

ANSInet
Asian Network for Scientific Information
308 Lasani Town, Sargodha Road, Faisalabad - Pakistan

Pakistan Journal of Biological Sciences 3 (8): 1311-1312, 2000

Hydatidosis in Buffaloes at Larkana Slaughter House

A.H. Mirani, N. Akthar, M.A. Brohe, S. Bughio and F.C. Oad
Z.A. Bhutto Agricultural College, Dokri, Larkana, Sindh, Pakistan

Abstract: Post mortem examinations of 500 buffaloes were conducted at the slaughter house of Larkana. Out of 500 buffalos 122 (24.4%) were found to be infected with hydatidosis. The organ involvement was as 24.4% in liver, 15.4% in lungs and 13.0% mixed infection (liver and lungs simultaneously). The infection intensity was also recorded as 57.3% livers had slight, 30.3% had moderate and 12.2% had severe infections. In case of lungs 50.6% had slight, 36.3% had moderate and 12.9% had severe infections. The overall investigation showed occurrence of slight infection at the slaughter house of Larkana. The infection occurs through the dogs. Therefore it is suggested that the dogs should not be allowed in the slaughter houses and the cyst infected organs should not be offered to the dogs.

Key words: Hydatidosis, buffalo, Larkana

Introduction

Larkana is a one of the big city of Sindh. It is situated at the right bank of river indus. According to the census of 1981, the population of Larkana city was 124 thousand. Due to the well developed irrigation system water buffaloes are mostly raised in Larkana.

Hydatidosis is one of the most important helminthic problem of animals and human beings. Disease is caused by the larval stage (Hydatid cyst of very small cestode parasite, *Echinococcus granuloses.* The parasite has a world wide distribution and constitute an economic and public health problem (Anwar *et al.,* 1995) *E. granuloses* utilizes various carnivores (mostly dogs) as deinitie host (Chatterjee, 1987). Its prevalence has been recorded in a wide range of intermediate hosts, particularly ruminants, but also in all other domestic animals and man. Parasite passes its larval stage in intermediate host and giving rise to hydatid cyst (Irfan, 1984). This study is first of its kind in Larkana city. In recent years many workers have recorded the infection rate of hydatid cyst disease in other parts of Sindh and Pakistan.

Materials and Methods

In the course of our investigation the viscera (liver, lungs, spleen, heart and kidneys) of 500 buffaloes at the slaughter house of Larkana were collected and visually inspected for the presence of hydatid cysts. The prevalence and intensity of the cysts were recorded in different organs. The infection intensity was described as slight (it quarter of organ was infected), moderate (half of the organ was infected) and severe (Almost the entire organ was infected).

Results

The present study was carried out to determine the prevalence of hydatid cyst in buffaloes slaughtered at the slaughter house of Larkana. The over all prevalence of hydatidosis was 122 (24.4%). The organ specificity was as, 122. (24.4%) cysts were present in the liver, 77 (15.4%) in the lungs and 65 (13.0%) both in liver and lungs. However spleen, kidneys and heart of all animals remained clear (Table 1). The intensity of hydatid cysts in liver showed 57.33% slight, 30.3% moderate and 12.2% severe infections. While in case of lungs 50.6% had slight, 36.3% had moderate and 12.9% had severe infections (Table 2).

Table 1: Organ wise distribution of hydatid cyst in buffalo (n = 500)

Organs	Animals infected	Infection percent
Liver	122	24.4
Lungs	77	15.4
Spleen	0	0.0
Heart	0	0.0
Kidneys	0	0.0
Liver and Lungs	65	13.0

Table 2: The intensity of cysts in liver and lungs as categorized on the base of the part of the organ infected.

		Organs infected	
		Liver	Lungs
Slight	No.	70.0	39.0
	%	57.3	50.6
Moderate	No.	37.0	28.0
	%	30.3	36.3
Severe	No.	15.0	10.0
	%	12.2	12.9
Total organs		122	77

Discussion

Bhutto (1984) from Hyderabad Khan *et al.* (1990) from Lahore and Bilquees (1986) from Karachi reported the overall infection rate as, 16.8, 19 and 33.27 respectively. Further Khan *et al.* (1990) from Lahore, recorded 33.2% liver infection and 57.75% lung infection. The variation in our findings is probably due to the management practices and number of animals examined. Munir *et al.* (1982) at Lahore observed 13.3% mixed infection. Our observation is in the agreement with the observation of above researchers. Islam (1982) from Bangladesh reported the intensity of infection as 67 and 70.2% livers and lungs had slight, 22.1 and 22% had moderate and 11 and 7.8% had severe infections. The findings of our study are in general agreement with the above worker as there is a great prevalence of slight infection.

Recommendations

1. Strict hygienic measures should be adopted at the slaughter houses.

2. Proper disposal of animal waste in the slaughter houses.
3. Regular treatment and deforming of the dogs with specific anthelmintic.
4. The infected organs should not be consumed for food.

References

Anwar, A.H., S.N. Buriro and A. Phulan, 1995. A hydatidosis veterinary perspective in Pakistan. Veterinarian, 4: 11-14.

Bhutto, H., 1984. Incidence of hydatid cyst in cattle and buffaloes slaughtered at the slaughter house of Hyderabad District. M.Sc. Thesis, Faculty of Veterinary Science, Sindh Agriculture University, Tandojam.

Bilquees, M., 1986. Incidence of hydatid cyst disease in livestock in Karachi. Proceedings of the 5th Pakistan Conference of Zoology, January 8-11, 1986. University of Karachi, Karachi.

Chatterjee, K.D., 1987. Parasitology (Protozoology and Helminthology) in Relation to Clinical Medicine. 13th Edn., Chatterjee Medical Publishers, Calcutta pp: 121-127.

Irfan, M., 1984. Key note address on effect of parasitism in lowering livestock production. Pak. Vet. J., 4: 25-27.

Islam, A.W.M.S., 1982. The prevalence of hydatid disease in buffaloes in Bangladesh. Ann. Trop. Med. Parasitol., 76: 623-626.

Khan, S.A., I. Hussain, M. Iqbal and A. Majeed, 1990. The incidence of hydatidosis in buffaloes slaughtered at Lahore abattoirs. Pak. Vet. J., 10: 34-35.

Munir, M.A., A.H. Anwar and A.H. Chaudhry, 1982. The nature and organ specificity of hydatid disease in buffalo (*Bubalus bubalis*). Pak. Vet. J., 2: 12-14.