

Prevalence of Hydatid Cysts among Buffaloes Slaughtered in Bareilly, Uttar Pradesh, India

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ABSTRACT

This descriptive-analytic study was carried out in Bareilly (Uttar Pradesh) slaughter house during 12 months period from Feb. 2014 to Jan. 2015. The 1175 carcasses were observed and inspected. The overall prevalence of hydatid cyst was (40%). Among which the carcass contaminated with hydatid cyst in liver is (56%), while (81%) cyst found in lung. The prevalence was highest (52%) and lowest (30%) in *winter* and *autumn* season respectively.

Keywords: Buffalo, echinococcosis, hydatidiosis, prevalence

Hydatidiosis caused by *Echinococcus granulosus* is one of the most wide spread anthroponozoonoses in agriculture based countries across the globe (Ito *et al.*, 2003). The disease in human beings and animals is an economic and public health problem particularly in live stock countries (Craig *et al.*, 2007). Due to presence of hydatid cyst in different locations in the intermediate hosts such as sheep, goats, cattle and buffaloes, it results in condemnation of the affected organs. The hydatid cyst is normally observed in lungs and liver apart from their presence in spleen, heart, kidney etc.

Presence of hydatid cyst in intermediate hosts like buffaloes is typically a chronic parasitic infection with viable cysts persisting throughout the life of the animal in most cases. This paper presents an usual location of a hydatid cyst in liver and lungs of buffaloes observed in slaughter house.

MATERIALS AND METHODS

A study was carried out to find out the incidence of hydatid cysts in food animals such as buffaloes at the time of slaughter by inspecting the viscera of slaughtered buffaloes in organs like liver and lungs. In the abattoir visceral organ was assessed macroscopically either by visual inspection or palpation when necessary with one or more incision.

One year cross-sectional study was carried out from Feb. 2014 to Jan. 2015 on 1175 buffaloes examined in Marya slaughter house to find out the prevalence of hydatid cysts in Bareilly region. Before slaughter an antemortem examination was done on all buffalo during which their gender were evaluated. Detail postmortem examination of visceral organs such as liver and lung was done in both male and female buffaloes.

RESULTS AND DISCUSSION

In this study 1175 buffaloes were examined,

465 were infected by hydatid cyst, that is the contamination proportion of this infection was 40%. The incidence of hydatidiosis in buffaloes was reported mostly in lungs and liver and found to be varying from 7 per cent to 12 per cent (Deka and Gaur, 1990), 34.88 % (Hussain *et al.*, 1992) and it was reported to be as high as 48 % (Singh and Dhar 1988).

Table 1: prevalence of Hydatid cyst in buffalo slaughtered in Bareilly

Name of the organ	Number of +ve animals examined	Number of animals positive for cysts	Percentage contamination (%)
Liver	465	260	56
Lung	465	377	81

Our finding are in correlation with Pour *et al.* 2012, Nadery *et al.* 2011 and Khan *et al.*, who also reported higher prevalence in lungs as compared to liver. Nadery *et al.* 2011, reported presence of the cyst as 60% in lungs and 32% in liver and according to Khan *et al.* 2013. Distribution of the hydatid cysts in organs showed that lungs accounted for the highest prevalence (2.17%) followed by liver (1.51%).

Table 2: Sex wise prevalence of hydatidiosis in Buffalo slaughtered in Bareilly

Sex of the animal	Number of animals examined	Number of animals positive for cysts	Percentage contamination (%)
Male	197	73	37
Female	978	392	40

Table 2 shows the prevalence percentage in both male and female buffaloes. Infection rate of hydatidiosis in buffalo bulls and she buffaloes was found to be 10.71% and 12.29% respectively (Gupta *et al.*, 2011). Table 3 shows the seasonal prevalence in these slaughter buffaloes. The prevalence percentage was found maximum (52%) in *winter* and minimum (30%)

in *autumn* season respectively. These findings are parallel to those of Mohamadin *et al.*, 2011 who also documented a higher prevalence in winter season.

Table 3: Seasonal prevalence of hydatidiosis in Buffalo slaughtered in Bareilly

Season	Months	Number of animals examined	Number of animals positive for cysts	Percentage contamination (%)
Spring	Mar	81	30	37
	Apr.	122	70	57
	May	75	30	40
Summer	Jun.	108	41	38
	Jul.	76	25	33
	Aug.	164	39	24
Autumn	Sep.	77	18	23
	Oct.	83	24	29
	Nov.	105	40	38
Winter	Dec.	80	43	53
	Jan	103	46	45
	Feb.	102	59	58

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