

PREVALENCE OF HYDATIDOSIS IN SHEEP AND GOATS IN AND AROUND CHENNAI

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ABSTRACT

Study on the incidence of hydatidosis in food animals, sheep and goats was done at the time of slaughter by inspecting the carcasses and viscera for the presence of hydatid cysts with particular reference to lungs, liver, spleen etc. The prevalence of hydatid cysts in sheep was found to be 5.6 per cent and in goats it was found to be 7.1 per cent. In both sheep and goats, the infection was more in lungs, followed by liver.

Key words: Hydatidosis, Prevalence, Sheep, Goats

INTRODUCTION

Hydatidosis, a zoonotic parasitic disease of animals and man is caused by the larval stage (metacestode) of the dog tapeworm *Echinococcus granulosus*, the life cycle involving two mammalian hosts. Definitive hosts are carnivores such as dogs and the intermediate hosts are herbivores and omnivores wherein the development of the cysts occurs in liver, lungs and other organs.

Incidence of hydatidosis has been reported earlier by Sundaram and Natarajan (1960) by examination of animals slaughtered in Madras. Hydatidosis in animals results in significant economic loss to the meat industry through condemnation of infected organs such as liver, lungs and other organs apart from reduced quality of milk, meat and wool. Hence, a study was done to know the prevalence of the hydatid

disease in slaughtered sheep and goats and their impact

MATERIALS AND METHODS

Sheep and goats were observed for the presence of hydatid cysts in lungs, liver and other organs at the time of slaughter. The organs harbouring the hydatid cysts were also collected and brought to the laboratory so as to ascertain the fertile or sterile nature of the hydatid cysts based on the presence or absence of protoscolices in the hydatid cysts.

RESULTS AND DISCUSSION

A total of 1141 sheep and 952 goats were observed at slaughter for the presence of hydatid cysts. Out of 1141 sheep examined, 64 had hydatid cysts in various organs, giving an overall prevalence of 5.6 per cent in sheep. Sixty eight goats were found positive for the presence of hydatid cysts, out of

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952 goats examined at slaughter giving an overall prevalence of 7.1 per cent in goats.

In sheep, out of 64 animals with hydatid cysts, 33 (51.56 per cent) harboured hydatid cysts in lungs, 29 (45.31 per cent) in liver and 2 (3.1 per

cent) involved both lungs and liver.

In goats, out of 68 animals with hydatid cysts, lungs accounted for 44 (64.7 per cent), liver 33 (48.52 per cent) and the involvement of both lungs and liver was observed in 1 (1.47 per cent).

Table 1

Incidence of Hydatidosis in sheep and goats

Species of animal	No. examined	Hydatid positive	Percentage of prevalence
Sheep	1141	64	5.6
Goats	952	68	7.1

Table 2

Organwise involvement of Hydatidosis in sheep and goats

Species of animal	Lungs	Liver	Lungs and Liver
Sheep	33 (51.56)	29 (45.31)	2 (3.10)
Goats	44 (64.70)	33 (48.52)	1 (1.47)

Number in parentheses indicate per cent involvement of organs

The prevalence of hydatidosis in sheep has been reported to vary from 2 per cent (Varma, 1990) to as high as 30 per cent (Singh and Dhar, 1988) and the findings, 5.6 per cent in the present study correlate with the earlier reports.

In goats, hydatidosis prevalence has been reported to vary from 1.39 per cent (Janardhan Pillai *et al.*, 1986) to as high as 21 percent (Singh and Dhar, 1988). The prevalence of hydatidosis was found to be 7.1 per cent in the present study which correlate with the earlier findings.

In the present study, lungs were found to be more frequently in sheep (51.56 per cent) and goats (64.70 per cent) which correlate with the findings of Janardhan Pillai *et al.*, (1986) who had reported that lungs were the most affected organ when compared to liver. Koshy (1984) also observed that lungs were more affected with hydatid cysts than the liver. Sundaram and Natarajan (1960) reported that lungs were more frequently affected (58 per cent) than liver, and spleen was infected less frequently (2.7 per cent). The findings in the present study correspond to the earlier observations with regard to organ wise involvement of hydatidosis.

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