

INCIDENCE OF CYSTIC ECHINOCOCCOSIS IN CATTLE

A.Sangaran and Lalitha John

Department of Veterinary Parasitology, Madras Veterinary College Chennai – 600 007.

ABSTRACT

In the present study an incidence of 11.57 per cent echinococcosis in cattle was found. Maximum percentage was observed in lungs followed by liver and lungs and liver both.

KEY WORDS: Cystic echinococcosis, incidence, cattle

INTRODUCTION

Cystic echinococcosis (Hydatidosis) is a zoonotic disease of animals and human beings, caused by the larval stage of *Echinococcus granulosus*. Incidence of cystic echinococcosis has been reported by Sundaram and Natarajan (1960). The disease is considered to be of economic and zoonotic significance. The condition in animals results in significant economic loss to the meat industry through condemnation of infected organs viz., liver, lungs and other organs apart from reduced production performance of the affected animals. New foci of infection and region of endemicity have recently been recognized. The cysts can occur in domestic animals such as cattle which can act as intermediate hosts for the dog tapeworm. Considering the economic importance the disease in cattle due to the presence of hydatid cysts in viscera of the affected animals, the present study was undertaken.

MATERIALS AND METHODS

The incidence of cystic echinococcosis in cattle was observed at the time of slaughter by inspecting the carcasses and viscera for the presence of hydatid cysts with specific reference to lungs, liver, spleen and other organs. The hydatid cysts collected from cattle were examined in the laboratory to ascertain whether the cysts were fertile or sterile. The organ wise fertility rate was also recorded so as to know the percentage of fertile and sterile cysts in different organs.

RESULTS AND DISCUSSION

Out of 664 cattle examined after slaughter, 77 cattle had hydatid cysts giving an incidence of 11.57 per cent in cattle. In cattle, out of 77 animals with hydatid cysts, 43 (56 per cent) were observed in lungs, 30 (39 per cent) in liver and 4 (5 per cent) involved both in lungs and liver. The incidence of cystic echinococcosis in cattle has been reported to vary from 7.6 per cent (Deka et al., 1983) to as high as 56.6 per cent (Himonas et al., 1994) which is akin to the findings in the present study of 11.57 per cent.

In the present study, lungs were found to be affected more frequently (43 per cent). The finding in the present study correlates with the findings of Janardhan Pillai et al. (1986) who had reported that lungs were the most affected organ as compared to liver. Sundaram and Natarajan (1960) found that lungs were frequently affected (58 per cent) than liver, and spleen was infected less frequently (2.7 per cent). These correspond with the findings of the present study. In the present study, the fertility rate of the hydatid cysts was found to be 39 per cent in cattle. Among the various organs with hydatid cysts, the fertility rate was more in lungs (44 per cent). The fertility rate of hydatid cysts in cattle and buffaloes have been reported to vary from 20 per cent to 55 per cent. (Koshy, 1984). The finding in the present study is in accordance with the occurrence of fertile hydatid cysts reported by earlier workers.

REFERENCES

- Deka, D.K., Srivastava, G.C. and Chhabra, R.C. (1983). Indian J. Anim. Sci., **63** :1154 -1155.
Himonas, C., Antoniadou, S.K. and Papadopoulos, E. (1994). J. Helminthol., **68** : 311 – 313.
Janardhan Pillai, K., Narayana Rao, P.L and Surya Rao, K. (1986). Indian J. Public Health., **30** : 160 -165.
Koshy, T.J. (1984). Ph.D., thesis to Tamilnadu Agricultural University, Coimbatore.
Sundaram, R.H and Natarajan, R. (1960). Indian Vet. J., **37**: 19 -24.