

## Prevalence of taeniosis in persons associated with pig slaughter in Bangalore

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### Abstract

The prevalence of taeniosis was studied in persons associated with pig slaughter in Bangalore. The stool samples of 100 persons were examined by sedimentation and formalin ether methods. The prevalence of *Taenia* ova was observed in 12% and 16% of the samples by the two methods, respectively.

**Keywords:** Taeniosis, Man, Stool examination.

### Introduction

*Taenia solium* is one of the commonly occurring tapeworms of man and the source of infection is by consumption of improperly cooked or raw pork containing viable cysticerci. A high rate of incidence of cysticercosis in pigs in Bangalore district was reported based on examination of meat and organs of slaughtered pigs (Placid and Hafeez, 1998). It was endeavoured to note the level of taeniosis in persons associated with pig slaughter in the city. Taeniosis has been reported in India by Pathak (1984) and Varma and Ahluwalia (1989) from various districts of Uttar Pradesh, Bishar (1991) from Assam and Meghalaya and from Chandigarh (Mahajan *et al.*, 1995). However, there appears to be no report from South India, hence the study was undertaken.

### Materials and Methods

Stool samples were collected during the year 2002 from 100 persons (male 56, female 44) associated with slaughter house (n=51) activities and also from those residing in the vicinity of slaughter house (n=30) and who consumed pork and its products (n=19). The stool samples were processed by sedimentation and formalin-ether methods (WHO, 1991).

### Results and Discussion

The number of faecal samples examined and the percentage of infection are recorded in Table 1.

A total of 16% prevalence of taeniosis was observed. A higher percentage of taeniosis (12-16) was observed in

the present study (Table 1) when compared with the findings of other workers who had found taeniosis in persons ranging from 0.5% to 6.59%. The study also showed that females had higher (15.90-20.45%) rate of infection than males and similar observation was made by Varma and Ahluwalia (1989).

Out of 600 human samples examined from different localities of Uttar Pradesh, 24 (4%) were found to be positive for *T. solium* eggs (Pathak *et al.*, 1984). Varma and Ahluwalia (1989) made an incidental study of taeniosis by collecting 2,055 human stool samples from various districts of Western and Central Uttar Pradesh and 119 (5.79%) persons were found to be infected with taeniosis. Bishar (1991) reported taeniosis from Assam and Meghalaya with 1.96% and 1.97% prevalence, respectively on the basis of 913 human faecal samples examined. At the Postgraduate Institute of Medical Education and Research, Chandigarh, between 1964-1980, stool examination of over

Table 1. Prevalence of taeniosis in persons connected with pig slaughter and residents in the abattoir area

Sex	No. of faecal samples	Sedimentation method (% positive)	Formalin-ether concentration method (% positive)
Male	56	5 (8.90)	7 (12.50)
Female	44	7 (15.90)	9 (20.45)
Total	100	12 (12.00)	16 (16.00)

0.25 million samples revealed taeniosis in 0.5% cases and the incidence was found to be higher in rural areas and among those with poor personal hygiene (Mahajan *et al.*, 1995).

## References

- Bishar P., 1991. Studies on the incidence of cysticercosis in pigs and cattle with special reference to taeniosis in humanbeings in Assam and Meghalaya. M.V.Sc. thesis to Assam Agricultural University, Guwahati.
- Mahajan, R.C., Malla, N., Stella, M. and Ganguly, N.K., 1995. Cysticercosis in India: Immunodiagnosis and treatment. J. Parasitic Dis., 19: 9-14.
- Pathak, K.M.L., 1981. A note on the prevalence of human intestinal parasites of tarai region. Indian Vet. Med. J., 5: 218-219.
- Pathak, K.M.L., Gaur, S.N.S. and Kumar, D., 1984. The epidemiology of strobilar and cystic phases of *Taenia solium* in certain parts of Uttar Pradesh, India. Indian J. Vet. Med., 4: 17-18.
- D'Souza, P.E. and Hafeez, Md., 1998. Incidence of *Cysticercus cellulosae* infection in pigs in three districts of Karnataka. Mysore J. Agri. Sci., 32: 67-70.
- Varma, T.K. and Ahluwalia, S.S., 1989. Potential danger of cysticercosis and taeniasis in man and animals. Livestock Adviser, 6: 54-56.
- WHO, 1991. Basic Laboratory Methods in medical parasitology. McMilan/Clays-England. pp. 16-17.