

## INCIDENCE OF HELMINTHIC INFECTION AMONG ANNUALLY DEWORMED CAPTIVE ELEPHANTS

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Large number of elephants in captivity in Kerala are susceptible to a number of ailments, particularly parasitic diseases. Gastrointestinal nematodes in elephants are very common and have been responsible for frequent illness. Hence the present study was carried out to assess the prevalence of parasitic infections in captive elephants in the Punnathoor Kotta of Guruvayoor Devasom Board, Guruvayoor (10°34'N, 76°0'E) which is a temple town in the coastal belt of Thrissur District, Kerala. The elephant camp has 58 elephants which have been dewormed annually for the past five years. Dung samples were collected from 44 and 55 elephants during the year 2000 and 2002 respectively. The collected dung samples were preserved in 10% formalin and brought to the laboratory for screening of parasitic eggs. The samples were examined by concentration and centrifugation method as per Georgi (1985).

Prevalence of parasitic infections in elephants is given in Table 1. Out of the 99 samples, 17 (17.17 %) were positive for parasitic infection. During the year 2000, the incidence of parasitic infection was 22.73% whereas it was only 12.73% in 2002. Among the positive samples, 10 samples (10.10%) had strongyles and seven (7.07%) had amphistomes. Chakraborty and Islam (1996) and Gaur *et al.* (1979) had reported 58% and 62.5% parasitic infection in elephants respectively.

In all the previous studies, incidence of strongyle infection in captive elephants were reported to be high (Guar *et al.*, 1979; Chandrasekharan *et al.*, 1982; Dutta & Bordoloi, 1989; Roa *et al.*, 1992; Cheeran, 1999). Chandrasekharan (1992) reported 91.27% strongylosis in captive elephants, maintained by the forest department. Suresh *et al.* (2001) recorded 63.64% and 87.5% strongylosis at S.V. Dairy Farm, Tirupati and Nehru

Table 1. Prevalence of parasitic infection in captive elephants in Guruvayoor

Year	No. of samples examined	No. of positive samples		
		Strongyle	Amphistome	Total
2000	44	7 (15.91%)	3 (6.82%)	10 (22.73%)
2002	55	3 (5.45%)	4 (7.27%)	7 (12.73%)
Total	99	10 (10.10%)	7 (7.07%)	17 (17.17%)

Zoological Park, Hyderabad respectively.

Amphistomosis were also identified by Huang (1981), Chandrasekharan *et al.* (1982) and Dutta and Bordoloi (1989). Chandrasekharan (1992) observed 17.85% amphistomosis in captive elephants, the prevalence being significantly higher than the present observation.

The low incidence of helminthic infection in Punnathoor Kotta might be due to regular annual deworming with albendazole @ 2.5 mg/kg body weight. Chandrasekharan (1992) and Suresh *et al.* (2001) had also reported the effectiveness of albendazole against strongylosis in elephants. Therefore it is advisable to deworm elephants once in 6-12 months to prevent the harmful effects caused by parasites.

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