transported to the laboratory, processed and identified based on morphological characters illustrated by Sen & Fletcher (1962).

Based on morphological features, ticks were identified as Amblyomma sp., which is in consonance with the findings of Burridge et al. (2000) who evidenced Amblyomma ticks in snakes from Florida, additionally, the same species of tick, was evidenced in tortoises and monitor lizards. Hanson et al. (2007) observed snake paralysis in Southern Black Racer due to the bites of Amblyomma rotundatum from Florida. Tick infestation in snakes was also recorded by Sur et al. (2001) from West Bengal, India. They successfully treated tick infested snakes with deltamethrin. The snakes were found tick free and resumed to eat normally within a week after acaricidal therapy. Kiel et al. (2006) reported deaths in African vipers imported from Africa to Florida due to vomition, diarrhoea, emaciation, convulsions, which were controlled only after elimination of ticks.

References


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VET BRIEF

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Infestation of tick Aponomma gibsoni (Acari: Ixodidae) in Monitor Lizard Varanus bengalensis from Nagpur, Maharashtra

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Monitor Lizard or Water Monitor lizard (Varanus bengalensis) is very common in Vidarbha region of Maharashtra state and often killed by the tribal community for black magic or medicinal purposes and sold surreptitiously. Wild and captive reptiles are generally infected with large number of parasites, but cause little harm to their health unless they are under stress, nevertheless, signs of parasitism depends on kind of parasite and body tissue involved. Tick parasite possess a direct threat to the health causing unthriftiness, restlessness and anaemia resulting in serious health hazards. Ticks have a significant role as vectors of various pathogens eg. Rickeletia honei (the etiologic agent of Flanders Island spotted fever) has been transmitted by Aponomma hydrophorous a tick associated with reptiles (Stenos et al., 2003). Hence, the present communication deals with the infestation of A. gibsoni in Monitor Lizard from Nagpur, Maharashtra.

A rescued Monitor Lizard was screened for ectoparasitic infestation. Ticks were encountered in the dorsal part of tail, collected, processed and examined in the laboratory. The identification was performed based on morphological characteristics described by Sen & Fletcher (1962).

Monitor lizard was found to be infested with male A. gibsoni confirms the findings of Tendiero et al. (1950) who recorded A. sp. from Portugal. Aponomma hydrophorous was recorded in Australian reptiles (Bull et al., 1976) and A. Bothriocroton (globopalma and A. globosum) in monitor lizard (V. globosum and V. glaserti) from Western and Northern territories, Australia (Keirans et al., 1994). Bayless & Simmons (2000) evidenced tick parasites on the Rock Monitor Lizard (V. albigularis) from Tanzania, Africa. Aponomma hydrophorous was associated with reptiles and transmitted Rickeletia honei (Stenos et al., 2003). Pietzsch et al. (2006) also collected tick parasites, viz., A. croninum and A. latum.

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nematode infection. One elephant exhibited mixed infection consisting of cestode and strongyle eggs, while four, five and one elephant showed the presence of single infection of nematode, cestode and trematode (*Schistosoma sp.*), respectively. Among the nematodes *Strongyle sp.* eggs was found to be the predominant species (36.36%). A similar condition has been reported by Sundaram *et al.* (1971). In cestodes, *Anoplocephala sp.* (9.00%) was encountered in one elephant, the same parasite was recorded in elephants by Chandrasekaran *et al.* (1979) in Kerala. Among trematodes, *Boviletobalzaria nari* was recorded in one (9.00%) Elephant which was reported earlier by Sundaram *et al.* (1972) and Islam (1994). The incidence of helminth recorded in the present study were also reported by Wavve (1995) and Saseendran *et al.* (2004). The low incidence of helminth infection among wild elephants might be due to lesser number of availability of intermediate hosts especially snail, etc among river banks which may be flushed out during heavy rainy season in dense forest and also the adverse environment temperature in the forest makes it unsustainable for intermediate host. However, the role of intermediate host in the transmission of helminth infection among elephants in Theppakudu, Nilgiris have to be studied in detail. The findings in the present study makes a call for routine deworming of elephants of all age groups which are kept in captive, semicaptive and free ranging systems.

VET BRIEF

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Isolation, serogrouping and antibiogram of *Escherichia coli* of wild animals

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Vast literature is available on *Escherichia coli* based enteric infection in domestic animals, but works on this line in wild animals, seems to be meager. The present communication deals with isolation and serotyping of *E. coli* from wild animals and their sensitivity to antibiotic agents.

A total of seven faecal samples, one each of Gaur (*Bos gaurus*), Indian Giant Fruit Bat (*Pteropus giganteus*), Porcupine (*Atherurus macrourus*), Palm Civet (*Paradoxurus hermaphroditus*), Krait (*Bungarus caeruleus*) and two of Asian Elephants (*Elephas maximus*) from Betta National Park, Jharkhand and Veterinary College, Jammu were collected. *E. coli* were isolated and identified as per Edward & Ewing (1972) and sent to Central Research Institute, Kasauli, Himachal Pradesh for serotyping. The identified serogroups were tested for their sensitivity to eight antibacterials, viz, amoxicillin, chloramphenicol, ciprofloxacin, erythromycin, gentamicin, enrofloxacin, tetracycline and kanamycin by single disc-diffusion method (Ellner, 1978).

*E. coli* was recovered from all the faecal samples. The three serogroups (O8, O9 and UT) of *E. coli* were isolated from Gaur. Two serogroups were isolated each from Asian Elephant (O32, O69), Fruit Bat (O61, O108) and Porcupine (O56, O147). One serogroup each was isolated from Palm Civet (O25) and Krait (O1).

The O8, O9 and UT all three *E. coli* serogroups isolated from Gaur were sensitive to ciprofloxacin. O9 was also sensitive for enrofloxacin and UT to gentamicin and enrofloxacin. Both O32 and O69 isolates of Asian Elephants were sensitive to chloramphenicol, ciprofloxacin, and enrofloxacin. The O69 also showed sensitivity to tetracycline. The O61 isolate of Fruit Bat was sensitive to all the antibacterials except erythromycin. Whereas, O108 was sensitive to chloramphenicol, ciprofloxacin and enrofloxacin. Amongst O56 and O147 *E. coli* isolates of porcine, the O56 was sensitive to amoxicillin, chloramphenicol, ciprofloxacin and enrofloxacin, whereas, O147 in addition to these was also sensitive to erythromycin. The O25 *E. coli* isolate of Palm Civet was sensitive to all the antibacterials except kanamycin. O1 isolate of Krait was sensitive to amoxicillin, chloramphenicol, ciprofloxacin and enrofloxacin only.

The *E. coli* strains were highly sensitive to ciprofloxacin (100%) followed by chloramphenicol (90.90%) and enrofloxacin (90.90%). The sensitivity for other antibacterials was amoxicillin (45.40%), erythromycin (27.30%), gentamicin (27.30%) and tetracycline (27.30%). Only serogroup (O61) of *E. coli* isolated from Fruit Bat was sensitive to kanamycin (Table 1).

The O1, O8, O9, O25, O32, O56, O61, O69, O108, and O147 serotypes of *E. coli* has also been isolated from diarrhoeic and non-diarrhoeic faecal samples of domestic animals (Sarma & Boro, 1984, Abba, 2006; Shuchismita & Kashyap, 2006). O1 serotype was also recorded from the stool of human patients suffering from gastrointestinal disorder (Shah *et al.*, 1980). Savoy (1965) isolated and described this serotype as highly virulent and invasive to fowl. The occurrence of common serotype in domestic and wild animals could be related with their shared food, fodder and habitat (Dubei & Rao, 1997).

The present findings indicate the expansion of *E. coli* host range in wild and their possible role as reservoir in near future and vice versa.

References


References


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