Acariosis in captive Pythons*

D.K. Ingole1, M.G. Jayathangaraj, S. Gomathinayagam and M. Parthiban

Department of Wildlife Science, Madras Veterinary College, Chennai-600007.

(Received: 21-01-2014; Accepted: 23-04-2014)

Abstract

Ticks are well adapted to a large variety of ecological niches and have become vectors for humans, domestic animals and wildlife diseases, hence a study was carried out to find out the prevalence of ticks and mites on captive pythons. Close examination of captive pythons was carried out and ectoparasites were collected manually and processed for identification. Results obtained were the presence of Amblyomma (Aponomma) gervaisi, a common snake tick along with Rhipicephalus (Boophilus) spp. which is commonly found on ruminant but not on reptiles, on different body parts of pythons, however this study could not reveal any mite infestation on captive pythons reared at Chennai Snake Park Trust (CSPT), Guindy.

Key words: Captive pythons-Amblyomma gervaisi-Rhipicephalus spp.-CSPT, Guindy.

Tick bites can be irritating and/or painful to the host. They also provide entry points for secondary bacterial invaders or screwworms. In captivity, commensal organisms can become pathogenic and normally relatively harmless parasite can become much more virulent and even cause disease and death (Cooper, 2001). Both soft and hard ticks are able to parasitize reptiles (Bowman, 2003). Ticks cause anaemia, dermatitis, decreased food intake and even mortality in heavy infestations (Mader 2006). Tick of Rhipicephalus (Boophilus) spp. is a common acarine infestation of ungulates (Sonenshine 1991). The present paper reports the prevalence of Amblyomma (Aponomma) gervaisi and Rhipicephalus (Boophilus) spp. on captive pythons.

Materials and Methods

Captive pythons reared at Chennai Snake Park Trust (n=18) were examined closely, for ectoparasitic infestation and ticks were collected from pythons in dry containers and were processed and identified based on procedure and keys given by Walter and Francis (1984).

Results and Discussion

Among the 18 captive pythons both Reticulated (Python reticulatus) (n=14) as well as the Indian rock pythons (Python molurus molurus) (n=4) examined closely, 11 pythons (61.2%) were found to be infested with ticks. Ticks were mostly found on lateral aspect of body and were hiding under the scales of pythons and lesser numbers on around cloaca and eyes. Very few ticks were observed on dorsal aspect of body. The laboratory processing revealed the Amblyomma (Aponomma) gervaisi and Rhipicephalus (Boophilus) spp. of ticks in these cases.

Rhipicephalus (Boophilus) ticks were identified based on features like brevirostrate, absence of festoons and further, first coxa had dorsal hump and ventral notch and Amblyomma (Aponomma) gervaisi was identified by features like five metallic green spots, one was median and others were at the periphery in case of male ticks, while heart shaped scutum with three green spots were situated at angles in case of female ticks (Walter and Francis, loc cit).

Though Mader (loc cit) opined that the ticks would hide inside the nostrils and labial pits, throughout the body, the Amblyomma (Aponomma) gervaisi ticks were encountered in the lateral sides of the body in greater extent.
than on area around eyes, cloaca and nostrils of the pythons studied. The prevalence of *Amblyomma gervaisi* ticks in reticulated pythons as well as Indian rock pythons was in agreement with the findings of Fowler (1986) who stated that the more important hard-bodied genera infesting the reptiles included *Hyalomma* and *Amblyomma* (Aponomma) species of ticks. However, throughout this study, no other species of ticks other than *Amblyomma* (Aponomma) *gervaisi* and *Rhipicephalus* (Boophilus) spp. were noticed in the pythons examined.

Ticks of genus *Amblyomma* are chiefly found in tropical and sub-tropical countries and majority of these ticks were present in wild animals and few were present on reptiles and in Chennai, *Amblyomma gervaisi* were extremely common on serpentes like rat snakes (Walter and Francis, loc cit). Wallach and Boever (1983) stated that the *Ornithodorus* species, *Amblyomma* species, *Ixodes* species of ticks could be pathogenic directly by producing anaemia indirectly by inoculating blood parasite of pathogenic bacteria. Though the ticks obtained from the captive the pythons were not examined for evidences of any microbial pathogen, studied in the programme, it appeared to be noteworthy to mention that the important species of ticks like *Amblyomma variegatum* and *Amblyomma habraeum*, distributed in Africa were found to transmit rickettsial disease causing pathogens, as quoted by Urquhart et al., (1994). In this regard Mader (loc cit) also opined that ticks had been shown to transmit haemo-protozoan parasites and even the mites were found to be the known carriers of *Acrornes hydrophile*, a common bacteria implicated in infectious stomatitis as well as in pneumonia and mites were found to be the vector of boa retrovirus also and also stated that infestation with ticks and mites invariably can be traced to unsanitary conditions, poor husbandry practices, and mixing recent imports of unquarantined diseased animals.

*Rhipicephalus* (Boophilus) tick was a usually ruminant tick and was a single host tick. Further, the ticks observed on these pythons under study might have migrated from the deer population located proximal to this snake park.

**Summary**

In this study pythons were infested with *Amblyomma* (Aponomma) *gervaisi* and *Rhipicephalus* (Boophilus) spp. and common site for ticks attachment on pythons body were lateral sides under the scales of body in greater extent than on area around eyes, cloaca and nostrils.

**Acknowledgement**

The authors are thankful to the Dean, faculty of basic sciences, MVC, Chennai, Wildlife Warden and Director Chennai Snake Park Trust, Guindy, Chennai for facilities and help offered.

**References**


