



SHELL ROT INFECTION IN RED EARED TURTLE

Assan Kasim, M., Senthil Kumar, K and Palanivelrajan, M.
Department of Wildlife Science, Madras Veterinary College, Chennai- 600 007

ABSTRACT

A four months old Red Eared turtle was brought to the Avian and Exotic Pet Unit (AEPU), Madras Veterinary College with a history of some irregular dark spots on the dorsal aspect of shell (carapace). After proper restraint, physical examination was carried. Whitish spots were observed on carapace. The shell was free from crack and wound. It was reported that these spots started to spread across its shell. But, the turtle had normal appetite and was fed with commercial turtle feed. Swabs were collected from the carapace and water from the terrarium, for the identification of infectious agent. Culture and antibiotic sensitivity test were done for the formulating the therapeutic protocol. Both the samples were positive for *Staphylococcus spp* infection. The turtle was managed with the amikacin and metronidazole oral suspension and the treatment was continued for ten days. Superficial lesion was daily cleaned with diluted povidone iodine for 14 days. After 14 days, the turtle recovered from the clinical condition.

KEY WORDS: Red Eared turtle, Shell rot, *Staphylococcus spp*

INTRODUCTION

In recent years, reptiles *esp.* turtles have become increasingly popular as pets. Dermatological problem commonly arises in captive turtle due to improper care and management and lack of knowledge related to their housing pattern. High humidity, low temperatures, poor nutrition, an under-floor heater, and injured skin are all potential factors in the development of Testudine bacterial infections. Gram-negative bacteria that are normally present in the environment are the most common cause of bacterial infection.

Clinical History and Observation

A four months old Red Eared turtle was brought to the Avian and Exotic Pet Unit (AEPU), Madras Veterinary College with a history of some irregular dark spots on the dorsal aspect of shell (carapace). After proper restraint, physical examination was carried. Whitish spots were observed on carapace. The shell was free from crack and wound. It was reported that these spots started to spread across its shell. But, the turtle had normal appetite and was fed with commercial turtle feed. Swabs were collected from the carapace and water from the terrarium, for the identification of infectious agent.



White spot were observed on carapace

Diagnosis

Culture and antibiotic sensitivity test were done for the formulating the therapeutic protocol. The samples collected were positive for *Staphylococcus spp* infection.

Shell rot infection in red turtle



Culture positive for *Staphylococcus spp* infection



Before treatment



During treatment



After treatment

Treatment

The turtle was managed with amikacin I/M and the metronidazole oral suspension and treatment was continued for ten days. Superficial lesion is daily cleaned with diluted povidone iodine for 14 days. After 14 days, the turtle recovered from the clinical condition.

DISCUSSION

Traumatic injuries such as bites from other turtles or predators can penetrate the outer keratin layer of the shell. Burns and bacterial or fungal infections can also lead to ulcers on the shell rot (Mader, 2006). Clinical findings such as soft spot of the shell and hyperemia on the turtle carapace are in accordance with findings of Fowler *et al.* (2008) who stated that the shell rot infection caused soft spot on the shell, hyperemia, fibrin deposits, cutaneous ulceration, sloughing of skin, septicemia and dehydration. The lesions in this case were found on the dorsal part of the shell (Carapace). This was in accordance with Fowler *et al* (2008) who quoted that, the initial stages of infection caused soft spot on the shell and later it cause cutaneous ulceration and fibrin deposit on the shell. Similarly, Harvey-Clark (1995) reported that gram positive cocci and candida were isolated from skin and foot lesions of turtles. Usage of amikacin at the dose rate of 3mg per kg body weight and the metronidazole treatment of shell rot was for at the dose rate of 50 mg per kg body weight against the bacterial infection based on the carpenter (2012). The therapeutic effect was observed, which revealed a marked clinical improvement with regard to improvement in shell texture and appearance. Hoppmann (2007) recommended the treatment of superficial cases with 2% chlorhexidine or povidone-iodine solution, twice daily soaks, until lesions resolved.

CONCLUSION

Shell rot is a common fungal or bacterial infection of a Turtle or Tortoise shell, associated with a soft spot on the shell hyperemia, fibrin deposit, cutaneous ulceration, Sloughing of skin, Septicemia, dehydration. This wound leaves room for bacteria or fungi to move in and grow. The infection will, if left alone can rot through the bone and into the body cavity. Amikacin and Metronidazole were used for the treatment of bacterial infection at a dose rate of 3mg per kg body and 50 mg per kg body weight against bacterial infection and it gives the best result against shell rot infection in red eared turtle.

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