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EMERGENCY AND CRITICAL CARE IN GREEN IGUANA (*Iguana iguana*): A CASE REPORT

Ruchika Lakshmanan[1*], K. Senthilkumar[2], M. Balagangatharathilagar[3] and M. Palanivelrajan[4]

[1]M.V.Sc, Dept. of Wildlife Science, Madras Veterinary College, TANUVAS, Chennai-7
[2]Assistant Professor, Post-Graduate Research Institute in Animal Sciences, TANUVAS, Kattupakkam-603 203
[3]Assistant Professor, Department of Veterinary Clinical Medicine, Madras Veterinary College, TANUVAS, Chennai-600 007
[4]Assistant Professor, Dept. of Wildlife Science, Madras Veterinary College, TANUVAS, Chennai-7
E-mail: ruchikavet@gmail.com (**Corresponding author*)

Abstract: A four months old green iguana (Iguana iguana) belonged to Chennai Snake Park Trust, Guindy was brought to the Avian and Exotic Pet Unit, Madras Veterinary College with the history of being stiff and unresponsive when touched or handled. The lizard was off-feed and did not drink water for past 3 days. On examination, it was found that, there was little to no deep pain reaction. The eyes were sunken and the skin was more wrinkled. It was tentatively diagnosed for hypothermia as its extremities were cold but later on it was confirmed that it suffered dehydration, emaciation and malnourishment. The condition could have been aggravated due to poor husbandry and management conditions. In order to treat the condition, the iguana was given oxygen therapy @ 1-2 litres/minute and simultaneously the iguana was covered with a warm cloth. When the reptile was stabilized, it was placed in a basking area for an hour. In addition to this, it was orally given multivitamin syrup and oral rehydration powder (electrolyte powder); this was continued for a week. The reptile was further advised to be given *ad libitum* water and everyday exposure to sunlight for a period of one to four hours. The reptile showed complete recovery after one month.

Keywords: *Green iguana, Malnourishment, reptile, oxygen therapy*

Introduction

Reptiles are kept in captivity since many years. Initially, there was no need of understanding their biology, temperature requirements, diet etc. as mostly they were wild caught. But nowadays as many of these reptiles are rather captive bred then picking up from wild. Captive breeding of these exotic pet brings lot of challenges along with it. Hence, knowing about their biology, understanding the temperature requirements, diet, light requirements and behaviour plays an immense important role for their proper husbandry, management and veterinary care (3). Green iguanas (*Iguana iguana*), are lizard species, moderate to large sized, terrestrial, arboreal and rock dwelling species. They are primarily herbivores and

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consume fruits, plants and leaves (4). Being reptiles, they are ectotherms and definitely require supplementary heat and light in captivity to manage their biological and metabolic processes. Reaching their preferred optimal temperature zone (POTZ) is very essential. UV-A and UV-B spectrum of lights play an important role in Vitamin- D activation (1). With this above mentioned aspects, it proves that proper husbandry and management practices are very essential in critical care of these reptiles in captivity.

Materials and Methods

Case History and Clinical Observations: A four months old green iguana (*Iguana iguana*) belonged to Chennai Snake Park Trust, Guindy was brought to the Avian and Exotic Pet Unit, Madras Veterinary College with the history of being stiff and unresponsive when touched or handled. The lizard was anorectic and was not even drinking water since three days. The reptile was manually restrained and then clinical observations were made. It had little to no deep pain reaction and a decreased respiratory rate which was less than 10 breathes per minute whereas the normal respiratory rate in lizards is more than 20 breaths per minute. The clinical observations revealed that the iguana was weak and dehydrated, the skin was more wrinkled, eyes were sunken and body extremities were cold. Initially, it was tentatively diagnosed for the hypothermia because of the cold body extremities but when the cloacal temperature was checked it was 28^0C which reflects normal temperature range for the Green Iguana. Thus, arriving at a conclusion the decision was made that the lizard was malnourished. Generally, inadequate diet and inadequate husbandry is responsible for illness in reptile patient and hence proper anamnesis is very essential to diagnose the illness. Cloacal and oral swabs were taken for culture to rule out for an infectious cause.

Results and Discussion

Treatment & Discussion: The iguana was immediately covered with warm cloth. Oxygen therapy was given @ 1-2 litres per minute in a ventilated cubicle (Figure 1). This low oxygen levels with proper ventilation does not decrease the respiratory rate in the reptile and gets it into a stabilised state (5). When the reptile was stabilized it was placed in sunlight for basking for about four hours. As the reptile was in debilitated and dehydrated state, warm fluid therapy was advisable and essential. For reptiles, maintenance fluid requirements are estimated to be 1-3% of their body weight or 10ml/kg/day (5). Dehydration and weak condition of the lizard resulted in no vascular access and hence two options for supplementing fluids were considered either soaking reptile in fluids as they can absorb fluids through cloaca or through oral route (5). Generally, soaking reptiles in fluid is not advisable

when the lizard is debilitated as it cannot lift up its head, so oral administration of fluid was done. Fluids were administered as a combination of warm water with oral rehydration powder (electrolyte powder) and multivitamin syrup @ 10ml/kg/day (2,5). This fluid treatment was continued for a week orally (Figure 2). The reptile was further advised to be given *ad libitum* water and everyday basking in sunlight for a period of four hours (Figure 3). Meanwhile, the bacterial culture report showed negative for any infection and hence no antibiotic course was started for the iguana. The reptile showed complete recovery after a month (Figure 4).

The inadequate nutrition and husbandry management is commonly listed as a major contributing factor to the prevalence of any kind of illness in reptiles. Proper hydration and body temperature must pave the way for nutritional supplementation to avoid potentially fatal "refeeding syndrome" characterized by hypokalaemia and hypophosphatemia. It is often better to wait several days before providing nutritional support beyond diluted simple carbohydrates and electrolytes (2). Conduct of balanced diet with proper level of nutrients is responsible for good care and management of reptiles in captivity. For all species the basic principles in emergency and critical care remains the same. Special challenges are incurred in reptiles due to their unique biology, metabolism and behaviour. Many ill or injured reptiles are hypothermic, dehydrated, malnourished and supplemental heat is mandatory. Providing a quiet, calm environment and an appropriate humidity level is very essential for their care and management. Housing the collapsed or debilitated reptile in an incubator or brooder with a temperature setting of 28-29.4°C (82-85°F) is suitable for many reptiles (5).

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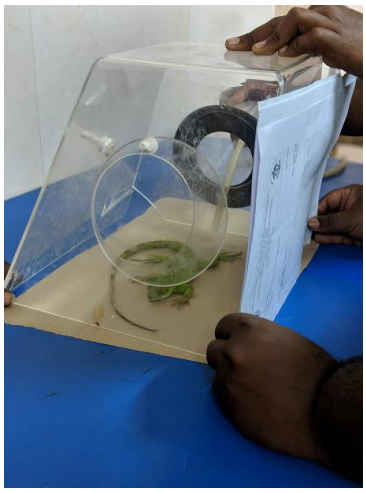

Fig.1 Oxygen therapy to Iguana in ventilated cubicle

Fig.2 Fluid therapy through oral route

Fig. 3 Basking in sunlight

Fig.4 Iguana after complete recovery