

A CASE OF HEAT STROKE IN A LIONESSE (*PANTHERA LEO*)

Thirumurugan, R. ¹, K. Senthil Kumar ², K. Devaki
and Pathan Nazrullah Khan ³

¹Zoo Veterinarian, ²Veterinary Assistant Surgeons, ³Veterinary Officer
Arignar Anna Zoological Park, Vandalur, Tamil Nadu, India

ABSTRACT

A case of heat stroke in a lioness and its successful treatment is reported in this paper.

INTRODUCTION

Heat stroke is a condition caused by high environmental temperature and humidity. Presence of thick hair coat, feathers, lack of sweat glands and lack of drinking water may predispose animals and birds to heat stroke. Incidence of heat stroke in captive and free living animals and birds were reported earlier by various authors (Mehrotra, 2002; Rathore & Khera, 1981; Upadhye & Dhoot, 2002; Arora, 1996 and Khan, 1987).

CASE HISTORY AND CLINICAL EXAMINATION

On 22.05.2003, after the regular cleaning operations in the Rescue and Rehabilitation Centre, Arignar Anna Zoological Park, Vandalur, a 12 years old lioness Malliga, was let out in the paddock as usual. At about 2 pm, the animal was reported of having epistaxis and rapid respiration. Immediately the animal was brought to the squeeze cage to facilitate detailed examination. The animal was dull with drools of saliva, slow in its movements and was having epistaxis. The respiration was rapid and harsh (45/minute). The visible mucous membranes were congested and moist. The pulse was rapid (82/minute). The rectal temperature (41.2°C) was higher than the normal range.

Blood smear was taken from the animal to find out whether the symptoms were due to any blood borne protozoa. But no blood protozoa could be detected in the stained smear. The environmental temperature at that time was about 43.5°C and relatively higher humidity. So based on the above findings the condition was diagnosed as heat stroke and the treatment was carried out.

TREATMENT

Cold water was sprayed over the body especially fore head region and ice was kept over the forehead intermittently and adrenaline was sprayed into the nostrils. 450 ml of Dextrose Normal Saline was given through the intra venous route and Vitamin K injection 2 ml was given intramuscularly. Amoxycillin & Cloxacillin was given intravenously @ 15 mg/kg. The bleeding from the nostrils stopped after 10 minutes. The animal was then brought to its room and the room was filled with water and gunny bags soaked in water were placed around the room. The pouring of water was continued at 10 minutes interval. The rapid respiration gradually reduced and became normal at about

35 minutes after the treatment. One litre of cold milk was given and the animal took the milk immediately. The animal was provided with the regular feed at about 4 pm and took half of the feed. The lioness was seen actively moving inside its room in the evening. The animal voided feces in the night and urination appeared to be normal. The next day she was retained in its room and was active and no abnormal symptoms could be detected. She behaved normally and its appetite was normal. The lioness was under observation and cold water with oral electrolytes and cold milk in addition to its normal diet were provided for a week. The antibiotic injection was continued for three days.

DISCUSSION

Heat stroke in a captive tigress and its successful treatment was reported by Khan (1987). Upadhye and Dhoot (2002) reported heart stroke in a sloth bear and its successful treatment. Acute cases of heat stroke can cause death of animals. Mehrotra (2002) documented the death of about 120 peafowls due to heat stroke. Rathore & Khera (1981) reported the death of felines due to heart stroke.

The epistaxis, harsh respiration, elevated rectal temperature, rapid pulse, congested mucous membranes, absence of any blood protozoa in the blood smear and the higher environmental temperature and humidity helped to diagnose that heat stroke might be the cause for the above symptoms and the same was confirmed by the response shown by the animal to the treatment protocol.

REFERENCES

- Arora, B.M. (1996). Successful management of heart stroke in a Malayan Bear (*Helarctos Malayanus*) *Wildlife information Bulletin* 2(2): 7-8.
Khan, M.G.A. (1987). A pat for me. *Zoos' Print* 2(10): 15-16.
Mehrotra, P.K. (2002). Mass mortality in Peafowl (*Pavo cristatus*) due to heat stroke in famine affected areas of Rajasthan. *Zoos' Print* 17(9): 890.
Rathore, B.S. and Khera, S.S. (1981). Causes of mortality in felines in free living state and captivity in India. *Indian vet. J.* 58(4): 271-276.
Upadhye, S.V. and Dhoot, V.M. (2002). Management of heat stroke in a Sloth bear (*Melursus ursinus*). *Zoos' Print* 17(5): 790.

ACKNOWLEDGEMENT

The authors are thankful to the Director, Arignar Anna Zoological Park, Vandalur, Chennai - 48 for permitting them to undertake the work.

