MANAGEMENT OF HEAT STROKE IN A SLOTH BEAR *MELURSUS URSINUS*

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Mortalities due to heat stroke in captive wild animals have been documented by earlier workers (Rathore & Khera, 1981a,b; Rajasubramanian *et al.*, 1991). A case of heat stroke in a Sloth Bear and its successful treatment has been reported here.

A male Sloth Bear aged about 10 years was let loose in his open enclosure as usual in the early morning hours of 16.v.2001. The Bear was quite normal till earlier that day with normal appetite and stools. After the cleaning operations, the usual diet (wheat flour cooked in milk) was offered in the feeding cubicle but the Bear did not come to the feeding cubicle and stayed in the open enclosure. At around 1730 hrs the zoo keeper reported that the Bear was sleeping in sternal recumbency and was not responding to his calls. Observations from outside the enclosure revealed that his breathing was shallow and fast and was panting. The Bear was pulled towards the bars of the enclosure with the help of a rope truss tied around the abdomen, and with a wooden pole. He tried to resist the operation and attempted to get up but could not. The rectal temperature revealed hyperthermia (105.4^0 F and rapid pulse (85/min), but the tone was feeble. The respiration rate was also high (55/min) and the he appeared very dull.

Looking at the symptoms and high environmental temperature (45.8^{0}C) and humidity (45%), the case was tentatively diagnosed as heat stroke and it was decided to treat accordingly. Cold water was poured on the body of the Bear, but with little response. Intravenous infusion of 500ml DNS was given along with Eldervit 2ml (injection of Vit. B3, B12, niacinamide with Vit. C - Elder Pharma.), Dexamethasone 8mg and Diclofenac sodium 50mg injections were given intramuscularly. Enema was given with about 1000ml chilled water. After completion of treatment, again cold water was poured on the body. Within 10 minutes the Bear responded and showed some movements in his legs and neck. The tongue normalized and blinking of eyelids was seen. After about 15 minutes the Bear turned to his side and was in a sitting position. A cooler was provided by the side of the enclosure and spraying of water in and around the enclosure was continued. After about 30 minutes the Bear was on his feet and entered the feeding cubicle with stumbling gait. Then four bananas and 50g honey was offered mixed with 1500mg Paracetamol, which he readily accepted. The respiration rate appeared to be normal and panting was reduced, but still breathing with mouth open. Drinking water was fortified with electrolyte powder and glucose. The blood smear did not reveal any protozoan infection. The next day, the Bear had loose stools and appeared completely alert, but did not accept food. Another dose of paracetamol 1500mg was offered with honey which the Bear accepted readily. Liquid Vimeral (an anti-stress preparation containing Vitamin A, D_3, E and B_{12} -- Glaxo Agrivet Farmcare) was also added in drinking water along with electrolyte and glucose. The Bear was under close observation throughout the day. By the third day, he had normal stools and his appetite had improved. The medicines, electral, glucose and Vimeral were repeated for three more days. The Bear was totally normal by the fifth day with normal appetite.

Captive wild animals are under great environmental stress and need good protection against environmental factors such as rain, excess heat or cold. Heat stroke is a very important condition as it takes a very acute form and the animal may be found dead without any prominent symptoms. Rathore and Khera (1981a, b) reported deaths in felines (2 in Delhi and 2 at Junagarh) and in non-human primates (2 Bonnet Macaques). Similarly, Rajasubramanian *et al.* (1991) reported death in a Painted Stork due to heat stroke. Khan (1987) reported successful treatment of heat stroke in a tigress. In the present case, symptoms like hyperthermia, extreme dullness, rapid pulse and respiration and climatic conditions and the history that the Bear was playing in the open enclosure the whole day under direct sun confirmed heat stroke. Arora (1996) reported a case of heat stroke in a Malayan Bear and the author opined that the animal was under direct scorching sunlight of the harsh summer and was unable to counter the effect of heat owing to its hairy coat and fat reserves. In the present case also, the same logical reasoning holds good. The Sloth Bear was treated on the guidelines given by Khan (1987) and Arora (1996) and he showed complete recovery within five days. The recovery confirmed the tentative diagnosis of heat stroke.

Reference

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