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ACKNOWLEDGEMENT

The authors are grateful to Ministry of Environment and Forests, Government of India, for financial support through a grant under AICOPTAX project. We also thank Chief Wildlife Warden, Government of Tamil Nadu, Chennai.



VET BRIEF

ZOOS' PRINT JOURNAL 20(3): 1822

MANAGEMENT OF POSTERIOR PARESIS IN A LION (*PANTHERA LEO*)

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web supplement

Paresis or partial paralysis is loss of voluntary motor function. This could be due to dysfunction of neural or muscular systems (Oliver, 1987). Posterior paresis or pelvic limb paresis or paraparesis involves hind quarters mainly hind legs. A case report of posterior paresis and its management in a captive lioness is reported.

A lion aged about 10 years housed at the rescue centre, Bannerghatta Biological Park, Bangalore, was not able to bear

weight on the hind legs (Image 1^w). It was a sudden onset and there was no history of any injury to the hind quarters or any infighting between the inmates of the animal house. The animal was found to be dragging its body with bearing weight on the fore limbs. On clinical examination of the animal, it had weak pin prick reflexes in the right hind limb and absence of reflex in the left hind limb. Tail was flaccid. Urinary incontinence was observed. Rectal temperature and pulse rate were within the normal range.

The animal was confined to the house only. Two doses of 80mg Depo-Medrol injections (Methylprednisolone acetate, *Pharmacia, Belgium*) were given epidurally at weekly intervals. Physiotherapy was provided by infra red rays (infraphil, *Peico Electronics & Electricals Ltd., Calcutta, India*) in a vertical manner from the lumbar region towards the foot daily for five minutes to both the hind legs. Daily massage of the hind quarters with Turpentine Liniment was done for a fortnight. To minimize the atrophy of thigh muscles, E-CARE Se (*Health Line Pvt. Ltd., Bangalore*) injections 10ml i/m was given daily for five days. Oral supplementation with preparations having calcium and zinc was done till the recovery of the animals. After a week the animal was able to bear weight on the right leg. In a fortnight the animal was bearing the weight in both the hind legs. Physiotherapy was discontinued after 15 days. Slight atrophy of the thigh muscles was observed at the end of the treatment (Image 2^w). However staggering persisted in the gait of the animal for 15 days. After two months the animal was able to walk normally. No reoccurrence of paraplegia was seen for next one year.

Paraplegia could be due to many reasons like subluxation, hind quarter injury etc. Diagnosis can be made by physical, neurological and imaging techniques. Grading of pelvic limb dysfunction can be done starting from grade 0, i.e., paraplegia to grade 5, i.e., normal strength and coordination (Renegar, 1990). The lioness in this case was graded from 1-4. Slippery floors due to presence of water used during cleaning of the animal houses could have been one of the predisposing factors. Sudden exercise after long period of decreased physical activity like confined to cages could also be a predisposing factor. Epidural injection of long action steroids, physiotherapy and complete rest helped to recover from paraplegia in the present case.

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ACKNOWLEDGEMENT

Authors are thankful to Mr. K.B. Markandaiah, Executive Director & Deputy Conservator of Forests, Bannerghatta Biological Park, Bangalore for giving permission to publish this paper.



* See Images 1 & 2 in the web supplement at www.zoosprint.org