MANAGEMENT OF METACARPAL FRACTURE IN A BLACK BUCK

**ANTILOPE CERVICAPRA**

Ashwani Kumar

Ex Veterinary Doctor, M.C. Zoological Park, Chhat Bir, Punjab, Chandigarh

Present Address: Assistant Professor, Department of Surgery and Radiology, College of Veterinary Sciences, PAU, Ludhiana, Punjab 141004, India

Email: drashwanikumar@rediffmail.com

Treatment of fractures in non-domestic animals is a challenge, as regular follow ups are not possible and frequent restraining is not advisable. Also, it is difficult to restrict an animal’s movement during the postoperative period. The present case report describes the management of metacarpal fracture in a Black Buck (*Antilope cervicapra*).

An adult male Black Buck, weighing about 25kg, maintained in the deer safari was presented at the zoo hospital with a complaint of non-weight bearing in the right fore limb. There was no history of an exact cause of trauma. The animal was restrained physically by holding its horns and limbs. Palpation of the right fore limb revealed crepitation indicating metacarpal fracture. No swelling or wound was observed at the site of fracture. Blood and serum samples were collected during initial examination: Haemoglobin 9.0g/dL, Total leucocyte count 7900/\text{ml}^3, Neutrophils 72%, Lymphocytes 28%, Serum calcium 8.8 g/dL and Phosphorus 4.3g/dL. The limb was radiographed to know the type and location of the fracture. Dorso-palmer and lateral radiographs revealed simple but complete mid shaft fracture of right metacarpal with mildly displaced bone fragments. Reduction of the bone fragments was achieved by counter traction. Immobilization of the carpal and fetlock joints was done with cotton padding and bandages. Padded bamboo splint support was applied for retention of the apposed bone fragments. The animal was isolated and confined in a caged house separated from other Black Bucks by a chain link partition.

The animal was kept under supervision and disturbed minimally during feeding hours. The animal tolerated the bandage and bamboo splints. After 7-10 days the animal flexed its carpal joint. On close observation the metacarpal bone fragments were found straight. It was decided not to disturb the animal. After five weeks the bandaging and bamboo splints were removed and a callus was observed on palpation at the site of fracture. Carpal joint was flexed but it could only be straightened manually. The antelope was kept in the same confinement for three weeks more without any external support at the site of fracture. After this period the animal started bearing partial weight on the right fore limb. Within one week the carpal joint straightened and the animal started bearing full weight on the affected limb. Slight outward rotation of the right hoof was noticed.

Surgical (Singh, G.R. *et al.*, 1982; Singh, J. *et al.*, 1982) and non-surgical (Thiruthalinathan & Swaminathan, 1996) means of fracture reduction have been described in deer. Surgical reduction of fracture management is no doubt superior but is also associated with risks of general anaesthesia; postoperative complications like infection or implant dislodgement particularly in wild animals, as they cannot be restrained frequently for antiseptic dressing of the surgical wound and parenteral medication. Secondly, such facilities are lacking in zoo hospitals. External immobilization with bamboo splints or plaster of paris, when the fracture is simple, is an alternative method to provide treatment or first aid of fracture in small wild ruminants under field conditions.

**REFERENCES**

