

# AMPUTATION OF HIND LIMB IN CHINKARA (*Gazella benneti*) UNDER DIAZEPAM AND KETAMINE ANAESTHESIA

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A male chinkara aged 9 months was received in the Surgery ward with a history of sudden fall and inability to bear the weight on left leg. On clinical examination there was a swelling, crepitus and pain on palpation of the distal third of the tibia suggested as a fracture. The animal was active and showed pulse, respiratory rate and rectal temperature within the physiological limits. Radiographic examination of left leg revealed multiple fracture of irreducible type on the distal third of the tibia (Fig.1). In the interest of saving the animal, it was decided to amputate the limb at proximal third of the tibia. Moreover, amputation is indicated in cases of irreducible fracture (Ohme and Prier, 1980; Quessada, 1993).

After 12 hours of fasting the animal was prepared for aseptic surgery controlled on lateral recumbency and premedicated with diazepam<sup>1</sup> @ 0.25 mg/kg body weight intramuscularly. After 15 minutes of premedication. Ketamine hydrochloride<sup>2</sup> @ 3.5 mg/kg body weight was administered intramuscularly.

These anaesthetic agents produced surgical anaesthesia for 30 minutes with a recovery time of 80 minutes with good muscle relaxation. Premedication with diazepam is reported to increase the length of action of the anaesthetic agent and also reduce the hallucinations which seem to occur with dissociative anaesthetic agents like Ketamine Hydrochloride (Hall and Clarke, 1991). Tourniquet was applied below the stifle joint. A circumscribed incision was made at the level of proximal third of tibia, reflecting the skin and muscles; bone was exposed, transected and removed. The muscles were sutured with No.1 chromic catgut in a crossed manner to cover the bony stump. Bleeding points were checked by removing tourniquet. The skin was closed in a horizontal mattress pattern using braided silk.

Post operatively, the animal was given streptopencillin<sup>3</sup> 2.5 G intramuscularly for 5 days. The wound was cleaned with normal saline and covered with Nitrofurazone<sup>4</sup> ointment daily. The skin sutures were removed on the 12th day of operation when the skin wound showed normal healing. The animal showed no difficulty in walking on three limbs (Fig.2) and made a complete recovery.

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Fig 1. Skiagram showing multiple fracture of the distal tibia.



Fig 2. Animal after surgery.

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- <sup>1</sup> Calmpose, Ranbaxy Laboratories Ltd., Thane  
<sup>2</sup> Ketamil, Helpro Health Products and Services, New Delhi  
<sup>3</sup> Dicrysticin, Sarabhai Chemicals, Baroda  
<sup>4</sup> Furacin, Smithkline Beecham Pharmaceuticals, Bangalore