

Field Demonstration and Evaluation of Novel Bilateral External Fixation Device in a cow with open metatarsal fracture

A cow weighing about 300 kg had an open fracture at the distal diaphysis of right metatarsal bone following an automobile accident. As per the request of Assistant Commissioner of Animal Husbandry, District Veterinary Polyclinic, Aundh, Pune, it was decided to treat the case using novel bilateral external skeletal fixation device developed by IVRI.

After fasting the animal for 24 hours, anaesthesia was achieved using xylazine (0.1 mg/kg body weight) – ketamine (3 mg/kg body weight) combination. The cow had comminuted fracture of right metacarpus at the distal end with open wound on lateral surface of the limb. After reducing the bone segments, the fractured bone was stabilized using the novel bilateral external fixation device using five 6-mm fully threaded pins. Three pins were positioned in the proximal bone segment, one pin each in the distal bone segment and the first phalanx. Fracture reduction and fixation was good, and the animal stood up and was bearing good weight on the operated limb soon after surgical fixation.

The surgical fixation of fracture was performed by Dr HP Aithal, Principal Scientist from the Centre and about 10 veterinary officers from the State Animal Husbandry Department, and students from KNP College of Veterinary Sciences, Shirwal, Satara, participated in the surgical fixation. The principles and technique of application of the novel bilateral ESF device (patented by IVRI) was narrated to the participants, who took keen interest in the fixation device and the technique.



