

Treatment in Guinea Pig (*Cavia porcellus*) for Fracture Left Tibia Fibula

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Keywords: fracture tibia fibula, guinea pig, intramedullary pin.

INTRODUCTION

Guinea pigs (*Cavia porcellus*) are South American hystricomorph rodents and monogastric herbivores. They have stocky bodies, delicate short limbs with fragile bones and no tails [1]. The Guinea pig anatomy have short legs and little feet with claws on which front feet have four and back feet have only three. Their characters active and exploring environment, make some traumas especiallay in joint problem. The injuries such as claws inflammation, musculoskeletal disorder and tibia fibula fractures, which are often oblique and can sometimes be open fractures due to the lack of soft tissue around the bone. This paper reports the case of a complete fracture of the proximal on the left tibia and fibula in a guinea pig treated surgically with an intramedullary pin.

CASE REPORT

A 3.5-month-old male guinea pig with bodyweight of 616 gram. He called Shiro wiyh clinical signs inability to walk, swelling of left hind feet, swelling of foot proximal to the fracture site. The Shiro guinea pig was eating and drinking well. Ability to urinate and defecate still well. Unknown causa the trauma because all the day stay in cage but the floor unused footrest .

Palpation revealed swelling, instability, crepitus and pain of the left tibia. Fracture was suspected. Radiographic image of the guinea pig were manually taken providing cranio-caudal and mediolateral views of the left tibia. Complete oblique fracture of the proximal of the left tibia and fibula were diagnosed.

DISCUSSION

Recommendation with surgical treatment for Shiro Guinea pig, but the owner didn't approve and just wanted to bring home. The clinical signs and radiographics presentation was explained if the surgery not allowed. So first treatment just used bandage and oral medicines.

After 1 weeks, Shiro came back with bigger inflammatory musculoskeletal than before and painfull. Then, owner agree to surgery approach and give sign in surgery and opname forms.

Surgical treatment was chosen. Intramuscular (IM) injection of ketamine

hydrochloride (44 mg/kg) associated with xylazine (5 mg/kg). The patient was then placed in right lateral recumbency, clipped and aseptically prepared for surgery with chlorhexidine gluconate 4%.

A medial approach was made to the shaft of the left tibia through the skin and subcutaneous tissues and the fracture site was identified. Callus formation still slight but it have to remove before insert intramedullary pin. The pin was advanced into the distal perforate to proximal and back to distal again until the distal tibia. The site was copiously lavaged with warm steril saline. The subcutaneous tissue in a simple continuous pattern and the smin was sutures in a simple interrupted pattern with 4-0 poliglactine.

The support bandage is applicable for short term reduction of soft tissue inflammation and stable fractures proximal and distal. Most fractures can be managed temporarily by the application of supportive bandage or cage-resting the patient until definitive fracture repair can be achieved. Carefully applied splint could also be useful for the temporary stabilization. Supportive bandages can temporarily immobilise the fractures, minimise further soft tissue disruption from the fractured bones and improve patient comfort [2].

Radiographs showed good apposition and reduction of the fracture. Postoperative treatment consisted of oral medicine with meloxicam (0.1 mg/kg) BID for 5 days, and oral enrofloxacin (10 mg/kg) BID for 5 days. Daily injection SID Catosal 0.1 ml/kg SID and Diphenhidramin HCl 0.1 ml/kg BID.

The day after surgery, Shiro was comfortably using intramedullary pin, its normally appetite and defecate. Menu diet with pellet and various hays (timothy, meadow and a little alfalfa). The water with Mix Oil (1 drop in 250 ml water). After a week the suture was removed and back to home. But advice to give intensif observation ab placing Shiro in a small cage to maintance his mobility.

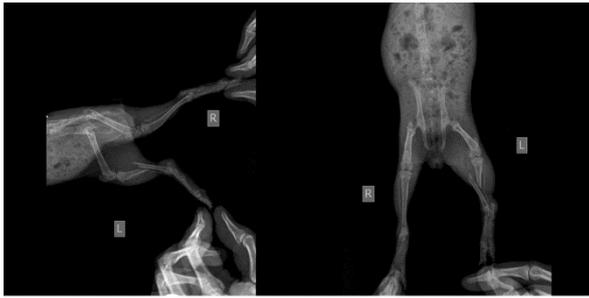


Figure 1. A-Craniocaudal preoperative radiographic view of the left tibia fibula of the Shiro *Cavia porcellus* showing a complete fracture of the left tibia. B-Mediolateral preoperative view fracture tibia fibula of Shiro *Cavia porcellus*



Figure 2. A-7 days first postbandage Mediolateral preoperative view postbandage and fracture left tibia fibula. B-Craniocaudal radiographic view of the left tibia fibula of the Shiro *Cavia porcellus* showing unsucces fixation and soft tissue inflammation

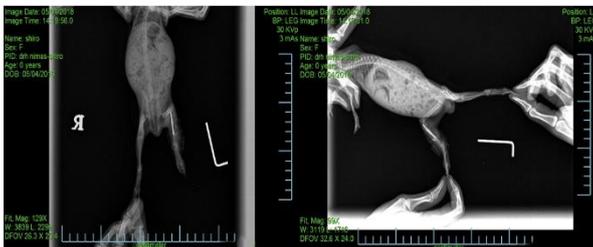


Figure 3. Postoperative radiographs of left tibia of the Shiro *Cavia porcellus*. A-Mediolateral postoperative radiographic displaying acceptable fracture reduction. B-Craniocaudal radiograph, the pin has not migrated and not callus formation

CONCLUSION

The popularity of guinea pig in the role of exotic pets there is an increase for specialized veterinary services. The fracture surgery are not rare in guinea pig, so the surgical repair is recommended in first treatment and give the highest successfully result. But in conservative management was not consider due to the nature of the fracture with bandage application.

REFERENCES

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