

Surgical Management of a Wound with Myiasis in a Bengal Monitor Lizard (*Varanus bengalensis*)

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Abstract: An Adult male Bengal Monitor Lizard weighing around 2.3 kg rescued by a wildlife conservationist from a metal trap and presented with incised wound with inverted skin noticed around the neck region exposing the neck muscles. The neck wound was infested with live maggots, after the removal of the maggots wound was irrigated with metronidazole + povidone iodine solution and bandaged. Ivermectine tablet (Neomec -Intas) was administered as single dose (0.2 mg/kg) the lizard was anaesthetized using inj. Ketamine hydrochloride at a rate 10mg/kg body weight intramuscularly and kept on dorsal recumbency. The wound edges were debrided and freshened, then the skin edges were sutured using polyglactin 910 (2-0) in cross mattress pattern under aseptic condition. A collagen based Gentamicin ointment was applied over the suture line and was bandaged. Inj. Amoxicillin and cloxacillin combination at a rate 10mg/Kg body weight was administered intramuscularly for five days. After wound healing the sutures were removed on 10th post-operative day and the lizard was released in the forest.

Keywords: Bengal Monitor Lizard, Lizard, lizard wound.

INTRODUCTION

The Bengal monitor lizard (*Varanus bengalensis*) Common Indian Monitor, belonging to *Varanidae* family [1]; it is in the stage of [2] extinction due to consistent persecution for its skin, meat and various body parts for folk remedies. Reptiles are often presented with various types and grades of wounds. Dubey *et al.* (2017) [3] reported the management of multi etiological abscess in Indian monitor lizard. Reptile wound healing rates are comparatively slower when compared to healing rates in mammals and birds.

CLINICAL OBSERVATION AND TREATMENT

An Adult male Bengal Monitor Lizard weighing around 2.3 kg rescued by a wildlife conservationist from a metal trap and presented at department of surgery and Radiology, TVCC, Rajiv Gandhi Institute of Veterinary Education and Research, Pondicherry. On clinical examination an extensive incised wound with inverted skin noticed around the neck region (Figure 1) exposing the neck muscles and the wound was infested with live maggots. Maggots were removed manually and the wound was irrigated using metronidazole + povidone iodine solution and bandaged. Ivermectine tablet (Neomec -Intas) was administered as single dose (0.2 mg/kg)". On the subsequent day the lizard was anaesthetized using inj. Ketamine hydrochloride at the dose rate of 10mg/kg

body weight intramuscularly and kept on dorsal recumbency. The wound edges were debrided and sutured using polyglactin 910 (2-0) in cross mattress pattern under aseptic precautions. A collagen based Gentamicin ointment was applied over the suture line and was bandaged. Inj. Amoxicillin and cloxacillin combination at the dose rate of 10mg/Kg body weight was administered intramuscularly for five days. After wound healing the sutures were removed on 10th post-operative day (Figure 2) and the lizard was released in the forest (Figure 3).



Figure 1: Incised wound.



Figure 2: After wound healing.

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Figure 3: Rereleased in the forest.

RESULTS AND DISCUSSIONS

In the present case the deep incised skin wound was due to metal trap. Ivermectine tablet as single dose (0.2 mg/kg) was effective agenzized the maggots on the wound.

The skin around the neck was inverted. Divers (2016) [4] also reported that incised reptile skin tends to invert. Everting suture patterns (eg, horizontal mattress) are recommended to ensure opposition of tissue without future dysecdysis. But in the present case cross mattress was very effective without any wound dehiscence. Use of Inj. Ketamine hydrochloride at the dose rate of 10mg/kg body weight intramuscularly as anesthetic was effective [5] for suturing the extensive wound on the neck. Many bacterial infections in reptiles are caused by gram-negative bacteria, particularly *Pseudomonas*, *Aeromonas*, *Citrobacter*, *Klebsiella*, and *Proteus* spp

[4] The lizards are often considered as source of bacteria either be environment, horizontally from air, water, food and contacts [3]. Collagen is the most abundant protein in the body, and is responsible for skin strength and is a key player in tissue healing [6]. Collagen based gentamicin ointment forms a semi occlusive film on the wound bed that gives a growth of cells which enhances healing and prevent infection. The lizard was realized to the same natural habitat from which it was rescued for easy adaptation.

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