

## Successful Surgical Management of Tail amputation in a Panther (*Panthera pardus*)

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**Abstract:** A two year old male panther (*Panthera pardus*) belonging to Sri Venkateswara Zoo Park, Tirupathi reported to have tail injury due to accidental slippage of tail in between cage door. On clinical examination it was diagnosed as fracture of fifth coccygeal vertebra and in addition to severe laceration of tail. A decision to amputate at the tail above the level of fifth caudal vertebra was taken. Post operatively, long acting penicillins were given and animal made uneventful recovery.

**Keywords:** Panther (*Panthera pardus*), fracture, laceration

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### INTRODUCTION

Animal tails are known to be important for social signalling in some animal species [1]. Tail docking refers to the amputation of part or all of an animal's tail. In dogs tail docking is commonly performed as a routine surgical procedure [2]. Tail amputation should only be performed on those dogs whose tail or associated structures have been injured or where there is occult pathology of this appendage [3]. Therapeutic caudectomy is indicated for traumatic lesions, infections, neoplasia and perianal fistula. Complications include infection, dehiscence, scarring, fistula recurrence and anal sphincter and rectal trauma [4].

### CASE HISTORY AND CLINICAL OBSERVATIONS

A two year old male panther belonging to Sri Venkateswara Zoo Park, Tirupathi reported to have tail injury due to accidental slippage of tail in between cage door. A coccygeal vertebral fracture was diagnosed on clinical examination and in addition to severe laceration (Fig.1) and bleeding of the tail and the animal was dull in condition with severe pain. A decision to amputate at the tail above the level of fifth caudal vertebra was taken.



**Fig-1: Pre – operative photograph of the tail showing laceration**

### SURGICAL TREATMENT

The panther was cage baited in order to restrain it. Anaesthesia was achieved with a combination Xylazine and Ketamine at doses of 0.5mg/kg Xylazine (Ilium Xylazil - 100) and Ketamine (Ketamil) 5mg/kg as a combined intramuscular injection. The area around the wound was shaved, disinfected and draped. An incision was made at a point away from the point of injury and laceration and

dissected backwards to create a flap for wound closure. A circumferential ligature was also placed around the entire tail to temporarily reduce blood supply to the tail and the coccygeal vein and artery were then double ligated using chromic catgut No. 2. The coccygeal bone was then severed proximal to the intervertebral articulation before the joint of fracture and the skin flap was closed over the coccygeal bone using Trulon No.1 (Fig.2). The tail was covered with antibiotic powder.

Post operatively dressing of wound (Fig.3) and long acting penicillin therapy was done under anaesthesia for five days. The tail stump healed uneventfully and

animal recovered appetite and playfulness within seven days.



**Fig-2: Closure of skin flap**



**Fig-3: Post – operative dressing of wound**

Surgical interventions on zoo animals are not common and even rarer still are those on wild cats. Very few reports are available describing management of fractures in wild captive felines. In other species of animals some of the reasons for tail docking include prevention of faecal soiling in lambs which can predispose animals to fly strike [5] and tail biting in pigs to prevent serious injury [6]. Tail docking in dairy cattle may have originated for two reasons: to control disease transmission and improve the milker's comfort [1]. In Karakkas lambs, deposition of fat in the tail which requires more energy than deposition of lean meat makes tail docking necessary to improve carcass characteristics [7]. Arguments against tail docking include acute pain, chronic health problems associated with docking, impaired locomotion and impaired communication by docked dogs. In this present case successful surgical management of tail amputation in a panther (*Panthera pardus*) was reported.

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