

Case Report

**SUCCESSFUL SURGICAL MANAGEMENT OF CLOACAL
PROLAPSE IN A TURTLE – A CASE REPORT**

**K.M. Srinivasa Murthy¹, Thara Singh D. Lamani², G. Kamalakar^{1*}, L. Suresh³,
K. Sai Gunaranjan¹ and B.N. Nagaraja⁴**

¹Assistant Professor, ²Ph. D. Scholar, ³Associate Professor, ⁴Professor & Head
Department of Veterinary Surgery and Radiology,
Veterinary College, Hebbal, KVAFSU, Bangalore – 560024, Karnataka
E-mail: drkamal1vet@gmail.com (*Corresponding Author)

Abstract: A five -year-old male turtle was presented with a history of not passing faeces, inappetence, depression and mass at the rectal region for a day. Clinical examination revealed swollen, inflamed, oedematous prolapsed mass protruding through anus. The condition was diagnosed as cloacal prolapse and prolapsed cloaca was replaced manually after cold pack application. After 3 days, case was again presented with recurrence of prolapse. Prolapsed cloaca was replaced gently after cold pack and K-Y jelly application and under Ketamine and Midazolam general analgesia. Purse string suture was applied using polyamide no1/0. Antibiotics and glucocorticoids were administered post operatively and the turtle recovered uneventfully.

Keywords: Turtle, Cloacal prolapse, Ketamine, Midazolam, Purse string suture.

INTRODUCTION

Prolapse may be classified as incomplete (in which only the rectal mucosa is everted) or complete (in which all rectal layers are protruded) (Siegmund, 2008). Prolapse in reptiles can involve the cloaca in which a common receiving chamber for the reproductive, urinary, and gastrointestinal tracts. Prolapse can also originate from the distal gastrointestinal tract, reproductive organ, or urinary bladder. Reptiles are like birds they have a single chamber, which faeces and urinate are deposited before being voided and in this same chamber sperms pass in male, egg in female. The cloaca is found just inside the vent (Sharma and Raghuvanshi, 2009). Once prolapsed, the organ can become desiccated and necrotic if it is not reduced. The underlying cause of prolapse is often related to straining or tenesmus and dyschezia caused by infection, inflammation or trauma. Prolapse can also develop secondary to constipation or faecal impaction caused by ingestion of a foreign body such as sand, bark chips, or gravel. Prolapse can also be associated with neurologic dysfunction or general

debilitation in all reptiles (Innis and Boyer, 2002; Martinez-Jimenez and Hernandez-Divers, 2007).

CASE HISTORY AND CLINICAL OBSERVATIONS

A five-year-old male turtle weighing about 400 gm was brought to the Department of Veterinary Surgery and Radiology. Veterinary College, Bangalore, with a history of not passing faeces, inappetence, depression, and a mass at the rectal region for a day. Clinical examination of turtle revealed swollen, inflamed, oedematous prolapsed mass protruding through anus. Condition was diagnosed as a cloacal prolapse (Fig.1).

TREATMENT AND DISCUSSION

The prolapsed mass was rinsed with normal saline, cleaned with povidone iodine solution and applied cold fomentation for 10 minutes which resulted in partial reduction of oedema of the prolapsed mass. Later the mass was carefully replaced back after lubricating with K-Y jelly. But recurrence was observed after 3 days and prolapsed mass was swollen and dark pink in appearance (Fig 2).

General anaesthesia was induced with Ketamine @ 20 mg/ kg I.M and Midazolam @ 1 mg/ kg I.M. The prolapsed tissue was lavaged with sterile normal saline and povidone iodine solution. After proper lubrication with K-Y Jelly, the mass was repositioned in pelvic cavity. A purse string suture using polyamide no 1-0 was applied leaving a small vent to allow passage of the faecal material (Fig.3). Post operatively, the turtle was treated with 20mg/kg ceftriaxone and prednisolone 0.2 ml was administered I.M for five days. During post-operative process, no complications associated with feed intake, urination and defecation were observed. The purse string suture was removed on 8th post operative day.

The exact cause of cloacal prolapse was unknown. Turtles may exhibit signs like anorexia, lethargy, not passing faeces and discharge from cloaca or active cloacal straining in case of prolapse. Prolonged straining leads to prolapse of cloaca and oviduct (Charles and Thomas, 2002). Various other reasons for cloacal prolapse are chronic low blood calcium, straining to urinate, defecate or laying eggs, neurological dysfunction, excessive libido, trauma and obesity (William et al., 1988). Dystocia, intestinal parasitism, cloacoliths, uroliths, neoplasia, a space occupying lesion in the coelomic cavity and foreign body damage (John Chitty and Aidan Raftery, 2013). It is also being reported to be due to excessive straining in order to removal of foreign bodies such as smaller stones accidentally ingested by the turtle (Scott, 2007). Oedema was controlled with the application of cold compresses which was also suggested by Norton (1994) and Barten (2006). Prolapse through the vent in reptiles and

amphibians can include reproductive, digestive, or urinary tissues, making treatment a challenge (Bennett and Mader, 2006, Clayton and Gore 2007, Hadfield and Whitaker, 2005, Martinez-Jimenez and Hernandez-Divers, 2007). This case could be successfully treated with application of purse string suture assisted by K-Y jelly. Raut et al. (2008) treated a case of cloacal prolapse by applying Estriol cream.

Wide spread of captive breeding has increased the number of reproductive problem. In the present case manual reduction followed with purse string suture as provided the satisfactory result for the management of cloacal prolapse.

REFERENCES

- [1] Barten SL. (2006). Penile Prolapse In: Mader DR, editor, Reptile Medicine and Surgery, 2nd ed., WB Saunders Company, Philadelphia, 862–864.
- [2] Bennett AR and Mader D. (2006). Cloacal Prolapse. In: Reptile Medicine and Surgery, Edited by Mader D, 2nd ed. Philadelphia (PA): Elsevier Saunders Inc. p 751–755.
- [3] Charles JI and Thomas HB. (2002). Chelonian reproductive disorders. *Vet. Clin. Exot. Anim.* 5: 555 – 578.
- [4] Clayton L and Gore SR. (2007). Amphibian Emergency Medicine. *Vet. Clin. Exot. Anim.* 10: 587 – 620.
- [5] Hadfield CA, Whitaker BR. (2005). Amphibian Emergency Medicine and Care. *Semin. Avian and Exot. Pet. Med.* 2: 79–89.
- [6] Innis C and Boyer TH. (2002). Chelonian reproductive disorder. *Vet. Clin. North Am. Exotic Anim. Pract.* 5 (3): 555-578. doi: 10.1016/S1094-9194(02)00013-0.
- [7] John Chitty and Aidan Raftery. (2013). *Essentials of tortoise medicine and surgery*, 1st edition. Published by John Wiley and sons, Ltd.
- [8] Martinez-Jimenez D, Hernandez-Divers S. (2007). Emergency Care of Reptiles. *Vet. Clin. Exot. Anim.* 10: 557–585.
- [9] Norton TM (1994). Chelonian Emergency and Critical Care. *Semin. Avian Exot. Pet. Med.* 14: 106–130.
- [10] Raut BM, Raghuwanshi DS, Upadhye SV, Gahlod BM, Khante GS and Borghare AP. (2008). Hormonal management of rectal prolapse in a turtle. *Vet. World.* 1 (8): 248.
- [11] Scott Robin. (2007). Gulf coast turtle and tortoise society. In: *Health and Husbandry*. <http://www.gctts.org>.
- [12] Sharma YK. and Raghuvanshi, PDS (2009). Surgical treatment of cloacal prolapse in a turtle. *Ind. J. Vet. Surg.* 30 (1): 70.

[13] Siegmund OH. (2008): Rectal prolapse: Merck Veterinary Manual. Pg: 441.

[14] William AC, Wyatt ST, Wilhem WE and Marion KR. (1988). Infection of the turtle *Sternotherus minor*, by the lung fluke, *Heronimus mollis*: Incidence of infection and correlations to host life history and ecology in a spring. *J. Herpetol.* 22: 488 – 490.



Figure 1: Prolapsed mass protruding through vent.

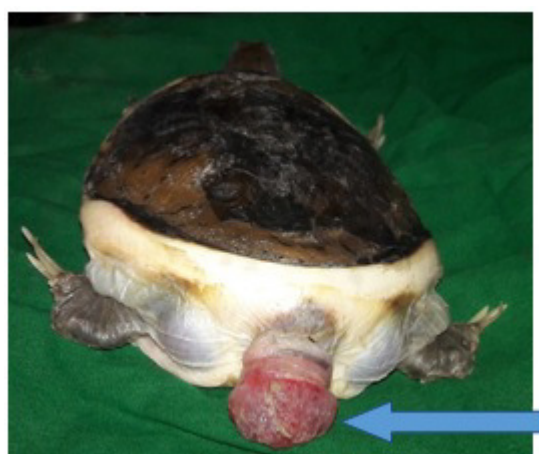


Figure 2: Second time prolapsed mass discolored and ischemic in nature.



Figure 3: Prolapsed mass was reduced along with purse string suture applied to vent.