

SURGICAL MANAGEMENT OF GENITAL PROLAPSE IN CHELONIAN: A REVIEW OF 6 CASES

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ABSTRACT

Six chelonian (two male star tortoise and four female soft shell turtle) were presented with the history of difficulty in defecation, inflamed, swollen, oedematous, necrosis and gangrenous prolapsed mass protruding from vent. Based on the clinical examination of mass coeliotomy or repositioning of the mass was performed under isoflurane (5%) chamber anesthesia for induction in all cases. Five chelonian recovered uneventfully on 14th postoperative day.

Key words: chelonian, genital prolapse and isoflurane

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INTRODUCTION

Reptiles are like birds in that they have a single chamber into which faeces and urates are deposited before being voided. Through this same chamber passes sperm in the male, and eggs in the female. This chamber, the cloaca, is found just inside the vent. In contrast to land turtles, prolapses of the uterus or intestine are rare in water turtles (Bennett, 1989).

The exact etiology of cloacal prolapse is not known. It has been associated with constipation, straining during defecation, feed habits, parasitic infestation, chronic irritation or trauma, bacterial enteritis, parasitic enteritis, cystic calculi, egg binding, and other conditions causing straining (William et al., 1988 and McArthur, 2004).

History and Clinical examination

Six chelonian (two male star tortoise and four female soft shell turtle) were presented with the history of difficulty in defecation since past more than 2/3 days. Clinical examination revealed presence of inflamed, swollen, hemorrhagic, edematous, necrosed and gangrenous (n=4) prolapsed mass protruding from vent. Both the male star-tortoise weighing around 840 gm were presented with fresh, inflamed, swollen and oedematous prolapsed penile mass protruding from vent (Fig. 1). In two of the female soft shell turtle the prolapsed mass was around 1.5 to 2 inch in length, cold to touch, swollen, discolored and ischemic (Fig. 2) while in other two the prolapsed mass was very small in size.

Treatment and Discussion

The prolapsed organ was cleaned with normal saline and diluted liq. betadine in all the cases. 5% isoflurane chamber anesthesia (Fig. 3) was used for induction of anesthesia in all cases (Moon and Stabenau, 1996). Amikacin sulphate @ 5 mg/kg was given intra muscularly as a preoperative antibiotic. Repositioning of prolapsed cloaca was performed in two female soft shell turtle with very small sized prolapsed mass by gently pushing the mass with help of ear bud after cold fomentation and care was taken not to injure mucous membrane. Out of the six cases, coeliotomy was performed in two male star tortoise and two female soft shell turtle (Fig. 4). In male tortoise the prolapsed penile part was inflamed, swollen, hemorrhagic and could not be replaced back by adopting similar procedure as done in above cases hence it was decided to amputate (coeliotomy) the part. Mattress suture (2-0 absorbable suture material) was placed at the base of penile part to control hemorrhage. The case was treated by taking circumferentially incision on penile part. After amputation mucous membrane of remaining part was fixed with vent wall by interrupted suture using non absorbable suture material. Similar procedure was followed for both the female soft shell turtle as the mass was necrotic



Fig. 1 Prolapsed penile mass



Fig. 2 Prolapsed cloacal mass



Fig. 3 Isoflurane chamber induction



Fig. 4 Prolapsed mass post coeliotomy



Fig. 5 Immediate post-operative appearance

and repositioning was not possible and the vent opening was narrowed by applying purse string suture using absorbable suture material number 2-0 to prevent the recurrence (Fig. 5). Postoperatively amikacin @ 5 mg/kg, i.m. was given once daily up to seven days and antiseptic dressing was done with betadine solution daily for seven days. Five cases of cloacal prolapse recovered uneventfully and death was encountered in one case of female soft shell turtle after three days.

The exact cause behind cloacal prolapse is unknown. Typically prolapse of cloaca occur due to various causes like: Chronic low blood calcium, straining to urinate, defecate or lay eggs, neurologic dysfunction, excessive libido, trauma, obesity (William, et al., 1988). Rectal prolapse can be encountered due to affection of rectum or anus leading to irritation, constipation etc., there by straining result eversion of rectal mucosa. It is also being reported to be due to excessive straining in order to remove foreign bodies, smaller stones accidentally ingested by the turtle (Scott, 2007). The treatment of cloacal prolapse is only a way to expand the life span of the turtle.

REFERENCES

Bennett, R.A. (1989). Reptilian surgery, parts I and II. Comp. Cont. Ed. Pract. Vet. 11: 1-2.

McArthur S: Problem-solving approach to common diseases of terrestrial and semi-aquatic chelonians, in McArthur S, Wilkinson R, Meyer J (eds): Medicine and Surgery of Tortoises and Turtles. Ames, IA, Blackwell Publishing, 2004, p 315

Moon, P.F. and Stabenau, E.K. (1996). Anesthetic and postanesthetic management of sea turtle. J. Am. Vet. Med. Assoc., 208(5): 720-726.

Sandy Barnett, Herpetologist (2010). www.boxturtlefact.org

Scott Robin (2007). Gulf coast turtle and tortoise society. In: Health and Husbandry. <<http://www.veterinary.org>.

Siegmund, O.H. (2008). Rectal prolapse in turtle: Merck Veterinary Manual-441

William, A.C., Wyatt, S.T., Wilhelm, W.E. and Marion, K.R. (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 Florida spring. J. Herpetol. 22: 488-490