

Case Report

MANAGEMENT OF UTERINE PROLAPSE IN A TURTLE

*Peer Rayees Aziz¹, Ishpal Singh², Karun Kant Kamal³, Mahendra Saini⁴ and Arvinder⁵

¹Department of Clinical Veterinary Medicine, Ethics and Jurisprudence, ²Department of Animal Genetics And Breeding, ³Department of Epidemiology and Preventive Veterinary Medicine, ⁴Department Of Veterinary Anatomy, ⁵Department of Veterinary Surgery And Radiology, College of Veterinary and Animal Sciences. Bikaner-334001, India

*Author for Correspondence: azizpeer3@gmail.com

ABSTRACT

A sexually mature, female, turtle weighing about 400 gms was presented to the “Teaching Veterinary Clinical Complex, RAJUVAS, Bikaner” for correction of uterine prolapse which had developed since 2 days. The chelonian was constantly straining and was dull, depressed and anorexic. Vital parameters like temperature (82°F), respiration rate (5 per minute) and heart rate (26 per minute) were within normal clinical range. Prolapsed mass was edematous and inflamed, involving vagina and uterus covered by dirt, dust and soil and with violent tenesmus. The prolapse mass was washed with metronidazole and sugar was used for reducing the congestion and edema of prolapsed. The prolapsed mass was pushed manually after applying lignocaine jelly. Purse string sutures were applied with Truglyde™ on either ends of the cloaca. The straining reduced gradually within 3 days and prolapse was not reported further.

Keywords: Turtle, Uterine Prolapse, Edema, Congestion

INTRODUCTION

Organ prolapse is a condition in which organs slip out of place. In veterinary medicine, prolapse of the rectum, vagina, uterus, oviduct, penis, cloaca and eyes are common (Aiello and Moses, 2016). During prolapse, organs remain in their proper anatomic orientations. In other words, the serosal and mucosal surfaces do not change positions. However, prolapse can occur in combination with eversion. Eversion describes the process of an organ turning inside out. During eversion, the internal side (mucosa) of an organ is exposed. In veterinary medicine, prolapse of the rectum, vagina and oviduct usually results in eversion (Aiello and Moses, 2016). Uterine (distal oviductal) prolapse occurs more commonly in chelonians than other reptiles.

It may be associated with dystocia or any condition that causes tenesmus such as parasitism or obstipation. Uterine prolapse is essentially an eversion of the organ, which turns inside out as it passes through the cervix into the vagina. The prolapse can be complete, with both horns protruding from the vulva, or limited to the uterine body and one horn. Prolapse of the uterus is a straightforward diagnosis made by observation. The exposed uterus has to be palpated to rule out the possible presence within it of any abdominal contents such as the urinary bladder or abdominal viscera (Miesner and Anderson, 2008). Uterine prolapse requires immediate attention and represents an obstetric emergency. To decrease the risk of uterine artery rupture or avulsion from the internal iliac leading to fatal haemorrhage, activity should be restricted until the prolapse is repaired (Miesner and Anderson, 2008). Gross debris contaminating the prolapsed tissue should be removed by washing, preferably with a hypertonic solution. Topical application of osmotic agents has proven to be effective in reducing and preventing the oedema that rapidly accumulates within the prolapsed tissue (Miesner and Anderson, 2008). The prognosis depends upon the type of case, the duration of the exposure of the prolapsed mass and the degree of trauma inflicted upon the prolapsed mass. Good prognosis can be achieved if case is attended by professional assistance within two to five hours. Such cases can be treated by many methods like application of rope truss, purse string suture, Buhner’s technique, vulvoplasty, cervical fixation and modified Minchev method of fixation of perivaginal tissue (Kumar, 2005). Cases in which there has been delay and in which the endometrium is grossly contaminated and deeply congested, prognosis is guarded. Thus, amputation

Case Report

of the everted organ should be considered in such cases when injury is gross and resolution is impossible (Mahida, 2008).

Predisposing Factors

Any condition that causes constipation or tenesmus, for example, parasitism, increased coelomic pressure, such as obstructions caused by a foreign body, reproductive disease or bladder stones and hypocalcaemia can lead to a prolapse.

CASE

A sexually mature, female, turtle weighing about 400 gms was presented to the “Teaching Veterinary Clinical Complex, RAJUVAS, Bikaner” for correction of uterine prolapse which had developed since 2 days. The chelonian was constantly straining and was dull, depressed and anorexic. Vital parameters like temperature (82°F), respiration rate (5 per minute) and heart rate (26 per minute) were within normal clinical range. Prolapsed mass was edematous and inflamed, involving vagina and uterus covered by dirt, dust and soil and with violent tenesmus (Fig. 1).



Figure 1: Uterine prolapse in turtle



Figure 2: Repositioned prolapsed mass

Clinical Management

Prolapsed mass was irrigated with metronidazole to prevent infection by debris and reduce the edema. Gentle massaging of the prolapsed mass with osmotic agents (sugar) was done to decrease the edematous swelling. For the easy repositioning and lubrication prolapsed mass was smeared with the Lignocaine hydrochloride gel. Then, with the help of figure tips the prolapsed mass was repositioned. Finally, the prolapsed uterine mass was pushed gently by first through vagina, cervix and uterine body (Chauhan *et al.*, 2013). Purse string sutures were applied with Truglyde™ on either ends of the cloaca to reduce its size and prevent recurrence (Fig. 2). The chelonian was medicated with meloxicam @ 0.2 mg/kg b.wt s/c and enrofloxacin @ 10 mg/kg b.wt s/c.

The animal showed excellent response to the treatment, as prolapse did not reoccur. The turtle was re-presented 10 days later, and the owner reported that the turtle was bright and active at home, and its appetite had also returned to normal.

DISCUSSION

Uterine prolapse is an emergency, which needs immediate proper treatment, otherwise interference in the blood supply of prolapsed mass may result into edema, cyanosis and later on may develop into gangrene. So, this condition can be corrected with favorable prognosis if treatment is initiated at early stage to avoid injury to the prolapsed genital organs (Noakes *et al.*, 2001). Sometimes in delayed cases, partial contracted cervix and severely edematous prolapsed mass interferes with proper repositioning and resulted into reoccurrence of prolapse (Singh *et al.*, 2011). Uterine prolapse should also be differentiated from

Case Report

vaginal prolapse/hyperplasia, vaginal tumor, and uterine torsion (Fossum, 2013). Before surgery, activity should be restricted to decrease the risk of uterine artery rupture. Prolapsed mass should be irrigated with warm saline or preferably with a hypertonic solution to prevent infection by debris and reduce the edema. Gentle massaging to the mass with osmotic agents like sugar can decrease swelling. Shock should be treated with fluids (plus or minus corticosteroids), and acid-base and electrolyte imbalances corrected. Lubrication of the mass with a water-soluble gel and pushing back the uterus to its place as well as flushing sterile fluid under pressure into the uterine horn can help replace the mass. Episiotomy may be necessary to assist with manual reduction (Maxson and Krausnick, 1969). If reduction is impossible, the uterus have to be amputated and the stump should be reduced after ligation of uterine arteries; then ovariohysterectomy should be performed (Tobias and Johnston, 2013). The use of table sugar can be an effective method to reduce swelling of a prolapse as a prelude to surgical replacement. The method has previously been used in sheep and cattle, and even in human medicine. Sugar is an excellent growth medium for bacteria, however, so it is imperative for the turtle to receive antibiotic cover to prevent infection. Uterine prolapse can be treated by medical (rarely successful) or by surgical management. The goal of treatment is to prevent infection. The organ can be cleaned and replaced if the organ is vital and replaceable (Maxson and Krausnick, 1969, Vaughan and McGuckin, 1993, Wallace 1970). Failure to achieve complete reduction of the prolapse can result in continued straining and uterine necrosis (Murphy and Dobson, 2002). The uterus may be attached to the abdominal wall to prevent further prolapse (Hopper, 2007).

ACKNOWLEDGEMENT

We are grateful to the faculty of Department of Veterinary Clinical Medicine, Ethics and Jurisprudence for their useful collaboration.

REFERENCES

- Aiello SE and Moses MA (2016).** *Merck Veterinary Manual*. Merck & Co., Kenilworth, NJ, 3325 pages.
- Chauhan PM, Sutaria TV, Maheswari VK and Sharma VK (2013).** Post-parturient complete uterine eversion in a Surti Goat: A Case Report. *Ruminant Science* 2 (2) 223 – 224.
- Fossum TW (2013).** *Small animal surgery textbook*. 4th edn. St. Louis, Missouri: Elsevier Health Sciences 826-827.
- Hopper RM (2007).** Surgical correction of abnormalities of genital organs of cows: management of uterine prolapse. In: *Current therapy in large animal theriogenology*. 2nd edn. Philadelphia, PA: Saunders 470–471.
- Kumar A (2005).** *Veterinary Surgical Techniques*, 1st edn. Vikas Publishing House Pvt. Ltd., New Delhi, India 361- 365.
- Mahida HK (2008).** Per vaginum ovario-hysterectomy as salvage surgical management of chronic recurrent genital prolapse in twelve cows. A Special PG Research Problem, Department of Veterinary Surgery and Radiology. College of Veterinary Science and Animal Husbandry. AAU. Anand, India.
- Maxson FB and Krausnick KE (1969).** Dystocia with uterine prolapse in a Siamese cat. *Veterinary Medicine Small Animal Clinician* 64 1065–1066.
- Miesner DM and Anderson DE (2008).** Management of uterine and vaginal prolapse in the bovine. *Veterinary Clinics of North America: Food Animal Practice* 24 409–419.
- Murphy AM and Dobson H (2002).** Predisposition, subsequent fertility, and mortality of cows with uterine prolapse. *Veterinary Record* 151 733–735.
- Noakes ED, Parkinson TJ and England GCW (2001).** *Arthur's Veterinary Reproduction & Obstetrics*. 8th edn. Published by Harcourt (India) Private Ltd., New Delhi.
- Singh B, Singh KP, Singh SV, Singh JP and Singh HN (2011).** Post-partum cervico-vaginal prolapse in a buffalo. *Intas Polivet* 12(1) 32-33.

Case Report

Tobias KM and Johnston SA (2013). *Veterinary Surgery: Small Animal*. 1st edn. St. Louis, Missouri: Elsevier Health Sciences 1886-1889.

Vaughan L and McGuckin S (1993). Uterine prolapse in a cat. *Veterinary Record* **132** 568.

Wallace LJ, Henry JD and Clifford JH (1970). Manual reduction of uterine prolapse in a domestic cat. *Veterinary Medicine Small Animal Clinician* **65** 595–596.