CASE REPORT

Surgical Replacement of Prolapsed Cloaca in an Indian Tent Turtle (*Pangshura tentoria circumdata*) – A Case Report

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Ind J Vet Sci and Biotech (2024): 10.48165/ijvsbt.20.2.30

Chelonians are basically diapsids which come under the class Reptilia of subphylum vertebrata. In reptiles they are kept in the order of Testudines which comprises turtles, terrapins and tortoises (Kuchling, 2012). The chelonian cloaca has extensive physiological interactions with both the bladder and large intestine, enabling fluid recycling, especially in uricotelic and hibernating species. The Indian tent turtle are vulnerable species and falls within appendix II of CITES, according to IUCN. This species is found in large rivers and in the small tributaries. This report presents a case of successful surgical replacement of prolapsed cloaca in a tent turtle at VCC, Jabalpur (MP) with minor complications.

Case History and Observations

A 1-year-old turtle weighing 100 g, was presented at OPD of Veterinary Clinical Complex, College of Veterinary Science and Animal Husbandry, NDVSU, Jabalpur (MP, India) with the case history of protruding mass below the tail and bleeding since morning due to changing environment of aquarium. On clinical examination it was found that the protruding mass was cloaca and it was swollen due to inflammation (Fig. 1). Ultimately, it was decided that the surgical replacement of the prolapsed mass should be the option for the treatment.

Treatment and Discussion

After stabilizing the animal with the help of bandage cover over the body and securing the legs, the prolapsed organ was cleaned with normal saline and betadine. Local anaesthesia was achieved by applying 2% Lignocaine gel on prolapsed mass and infiltration with 2% Lignocain around vent. Prolapsed mass was reduced with saturated sugar solution, followed by cold fomentation, and then application of Popin spray was done. Prolapsed cloaca was replaced back gently with the help of forceps and then the mass was held inside the vent by inserting a cut piece of scalp vein set into it. Care was taken not to injure mucous membrane (Fig. 2).

To retain the prolapsed mass inside and to prevent the recurrence of cloaca, vent opening was narrowed by applying purse string sutures using polyglactin 910 5-0 (Vicryl) (Fig. 3). For subsiding the inflammation turtle was parentally treated with Inj. Meloxicam @ 0.5 mg/kg of body weight intramuscular. For treatment of secondary infections, drop Cefpodoxime 1 drop BD for 5 consecutive days and drop Meloxicam 1 drop BD for 3 days were given orally to the turtle post-operatively. For the correction of vitamins and minerals deficiency, multimineral and multivitamin supplementation was done orally. On post-operative day 11, clinical examination revealed absence of inflammation, and cloaca was found to be normal. Hence, purse string sutures were removed gently (Fig. 1b). During post-operative care, no complications associated with feed intake, urination and defecation were observed.

In chelonians, prolapse of cloaca may occur due to bite wounds from cage mates, traction during copulation, infection, nutritional hyperparathyroidism, inflammation, straining from intestinal parasite, impaction of the cloaca with gastrointestinal foreign bodies (sand, gravel) and feeding of chapati and dough and bladder or cloacal uroliths (Korkmaz *et al.,* 2014). It has been indicated that in such cases, where

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How to cite this article: Vishvakarma, S., Bajaj, N. K., Khan, A., Dawar, M., & Verma, A. (2024). Surgical Replacement of Prolapsed Cloaca in an Indian Tent Turtle (*Pangshura tentoria circumdata*) – A Case Report. Ind J Vet Sci and Biotech. 20(2), 132-133.

Source of support: Nil

Conflict of interest: None.

Submitted 12/11/2023 **Accepted** 18/12/2023 **Published** 10/03/2024

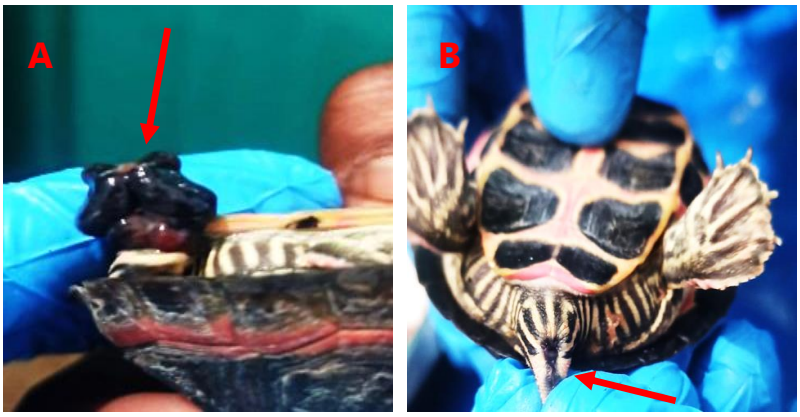

Fig. 1: Prolapsed cloaca before (A) and after replacement (B)

Fig. 2: Correction of prolapse mass

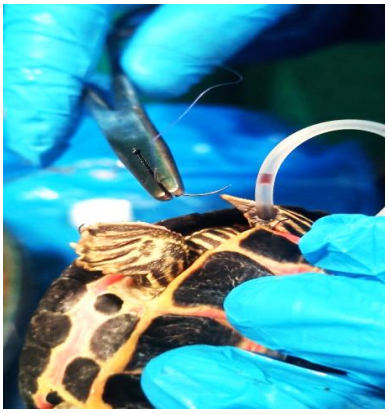

Fig. 3: Applied purse string suture

the prolapsed tissue is still considered viable, the organ may be reduced. Prolapsed tissue must be cleaned, prior to its reduction, and then lacerations should be corrected, whereas the presence of edema at the sight of injury can be reduced with the cold fomentation (Barten, 2006). To reduce the possible hormone dependant congestion, various drugs like estriol cream can also be applied as hormone replacement therapy (Raut *et al.,* 2008).

Surgical replacement of prolapsed mass is usually done in a condition when clinical examination reveals that mass can be replaced successfully. It is usually followed by three steps: first is reduction of prolapsed tissue with a suitable agent, e.g., saturated sugar solution, second is replacement of prolapsed mass inside the cloaca and then third step is retention to prevent reoccurrence, for this purpose an appropriate suturing technique purse string sutures should be applied to narrow the vent opening (Jain *et al.,* 2014; Kumar *et al.,* 2017).

In the present case, it was decided that the surgical mass replacement was a straight approach due to fresh prolapsed mass. The surgical replacement of a cloacal prolapse in Indian tent turtle can be practiced without life threatening complications. In conclusion, replacement of cloaca in this turtle was found to be successful with minor post-operative complications like swelling around the vent and restlessness.

Acknowledgement

Authors would like to acknowledge the owner of the turtle, Dr. Anand Kirar for their assistance provided during the surgical procedure and post-operative care.

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