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Successful Surgical Management of Cloacal Prolapse in a Turtle

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Abstract: ***A seven year old femaleturtlewas presented with history of not passing feces, inappetance, depression and mass at the rectal region from last three days. On clinical examination was found swollen, inflamed, edematous prolapsed mass protruding through vent. Condition was diagnosed as a cloacal prolapse and prolapsed cloacawas replaced back gently with help of finger after cold fomentation under local analgesia.After 5 days case was presented with recurrence of prolapse. Radiograph was taken to know the cause of prolapse and radiographrevealed five shelled egg in the oviduct.Surgical correction was planned, Necrosed mass wasresected; simple interrupted suturewas applied using polypropylene blue no-2/0. Wound cleaned with normal saline and povidone iodine solution. Antibiotics and analgesics were administrated post operatively. After 10 days suture were removed, turtle recovered uneventfully.***

Keywords: Turtle, Cloaca, Shelled egg

1. Introduction

Turtles are reptiles of the order Chelonii or Testudines characterized by a special bony or cartilaginous shell developed from their ribs that act as a shield (Rajkumarjain *et al.,* 2014).Reptiles are like birds they have a single chamber, which feces and urate 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). A moderate, pen like protrusion of cloaca tissue some time referred as a clitoral hyperplasia may be observed in mature female under certain abnormal circumstances, such as during treatments with oxytocin (To stimulate oviduct contraction in case of dystocia/egg retention), and when extremely debilitated, hypocalcaemia, or edematous (Sandy and Herpatologist, 2010).

2. Case History and Observation

A seven year old female turtle weighing around 770gm was brought to the Department of Veterinary Surgery and Radiology. Veterinary College, Bangalore, with history of difficulty in passing feces, inappetance, depression, and a mass at the rectal region from last three days. Clinical examination of turtle revealed swollen, inflamed, edematous prolapsed mass protruding through vent. Condition was diagnosed as a cloacal prolapse (Fig.1).

3. Treatment

Turtle was placed on dorsal recumbency, the prolapsed mass was rinsed with normal saline, cleaned with povidone iodine solution, cold fomentationwas done for 10 minutesand the edema of the prolapsed mass got reduced. Prolapsed mass wascarefully pushed back with a gloved finger lubricated with xylocaine jelly (Fig.2). But after five days recurrence of prolapse was observed and prolapsed mass was swollen, cold to touch, discolored, ischemic in nature and measured 1.5 inch in length, (Fig.3). To know the cause of prolapse the radiograph was taken and radiograph reveals five shelled eggs in the oviduct (Fig.4).Finallydecided to perform amputation of cloaca under local analgesia. Local analgesiaachieved by applying 2% lignocaine gel on prolapsed mass and infiltration with 2% lignocaine injection around the vent(Rajkumarjain*et al.,* 2014, Sharma and Raghuvanshi, 2009).

The case was surgically treated by applying artery forceps to prolapsedcloaca near to vent and incised circumferentiallyabove the artery forceps.Afteramputation, mucus membrane of remaining part was fixed to vent by simple interrupted suture pattern using polypropylene blueno.2-0. (Fig.5).postoperatively turtle was treated with inj. Gentamicin@ 2.5mg/kg body weight intramuscularly and repeated every 72hrs for seven days (Rajkumarjain*et al.,* 2014). Inj. Meloxicam 0.3 mg/kg body weight intramuscularly for 3 days to control post-surgical pain.Surgical wound cleaned with povidone iodine solution and ointment mupirocin applied around the vent twice daily for 7 days. The wound healed well on 10th day post operatively, sutures were removed and turtle had uneventful recovered.

4. Results and Discussion

The exact cause of cloacal prolapse is unknown. It has been associated with egg retention, clinical signs of egg retention can vary tremendously; a common clinical signs were active and eating turtle that has passed one or more eggs. Some turtle may exhibit anorexic, hyperexic or lethargic and discharge from cloaca or active cloacal straining. Prolonged cloacal straining leads to prolapse of cloacal and oviduct (Charles and Thomas, 2002).Other various reasons for cloacal prolapse viz., chronic low blood calcium, straining to

urinate, defecate or laying eggs, neurological dysfunction, excessive libido, trauma, obesity(William *et al.*, 1988).Dystocia, intestinal parasitism, cloacaliths, 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 strainingin order to removal foreignbodiessuch as smaller stones accidentally ingested by the turtle (Scott, 2007).Many cases are seen where the prolapse is placed back into the cloaca and purse string suture applied, leads to prolong painfuland death (John Chitty and Aidan Raftery, 2013).

Radiographs are important to determine how many eggs are present and to rule out any cause of egg retention. This may include overly large, anomalous or fractured egg, thickened egg shells (a sign egg may have been retained longer than normal), past pelvic trauma, or mass obstructing on pelvic inlet or terminal oviduct. In some cases egg may be found in unexpected location such as urinary bladder, colon or free in coelom (Charles and Thomas, 2002).

5. Conclusion

Wide spread of captive breeding has increased the number of reproductive problem. There are many potential, environmental and pathological cause of the inability to lay eggs. In this case turtle kept indoor, due to lack of environmental system it cannot lay the egg, prolapse was due to egg retentionwas confirmed by radiography. Providing suitable environment for egg laying can be reduced incidence of egg retention and cloacal prolapse.

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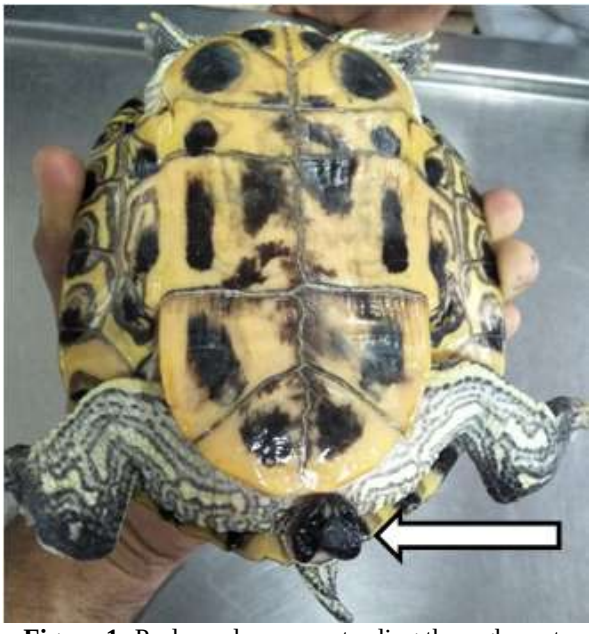

Figure 1: Prolapsed mass protruding through vent.

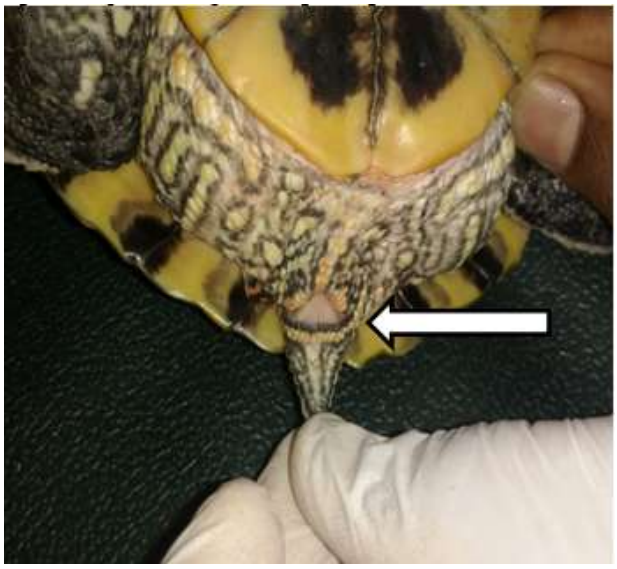

Figure 2: Prolapsed mass was reduced.

Figure 3: Second time prolapsed mass discolored and ischemic in nature.

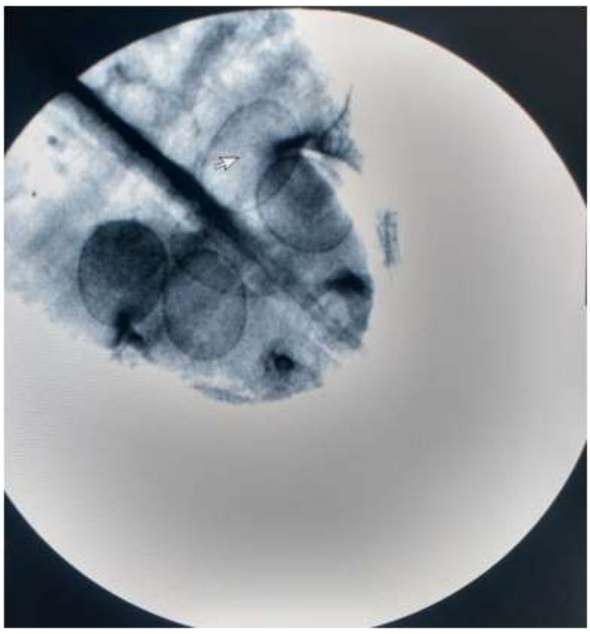

Figure 4: Radiograph reveals five shelled eggs in the oviduct

Figure 5: Suture applied to vent by simple interrupted pattern