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Surgical Repair of Traumatic Crop Fistula in a Yellow Footed Green Pigeon

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Abstract: ***A rescued yellow footed green pigeon was presented at the Veterinary Dispensary, Ramohalli, Bangalore with a history of oozing out of food material at the crop region. Physicalexamination revealed, the presence of traumatic wound at the neck region with a fistulous tract connecting the crop to the exterior and seepage of ingesta was noticed. The surgical correction of crop fistula was performed under general anesthesia and the bird was recovered uneventfully without post-operative complications.***

Keywords: crop, traumatic, pigeon

1. Introduction

The crop (ingluvies) is a large dilation of the oesophagus precededto proventriculus and gizzard and has been thought to perform primary function of food storage. When the crop is full of food, it is often susceptible for trauma.Penetrating wounds can result in formation of fistula in the crop and such woundsare often; result of animal bites, improperly assisted feeding technique, foreign body indigestion, trauma and excessively hot food items. The crop of the neonates were more fragile and susceptible to injury than the adult ingluvies (Harrison, 1987). The present case describes the management of traumatic crop fistula in a pigeon.

2. Materials and Methods

Feathers were clipped around the site ofwound. The area was thoroughly cleaned with warm normal saline and ruptured crop was prepared for reconstruction. The bird was anaesthetized with mixture of Inj.ketamine hydrochloride @ 30 mg/kg body weight and Inj. diazepam 1 mg/kg body weight administered intramuscularly. The ruptured crop edges were debrided and closed by using no. 2-0 chromic catgut using two layers of inversion sutures. Crop was adequately inflated with air before skin closure to check for any leakage. Muscle and Skin were closed using by simple interrupted pattern. Post operatively, the bird was kept on Inj.Enrofloxacin- @ 10mg/kg body weight for 7days and Inj. Meloxicam @ dose rate of 0.2mg/kg body weight administered by intramuscular route and mineral supplementswere added in the diet. Daily dressing of wound with 5% povidone iodine was also advised for 10days. The bird was recovered uneventfully without any complications.

3. Results and Discussion

The delicate nature of avian patient, small body size, high metabolism and small blood volume always poses challenge to veterinarians for undertaking successful surgical intervention on these avian patients (Chaudhary *et al.*, 2010). Primary non-infectious lesions of crop mainly include crop burns, foreign body penetration, Vitamin A deficiency, crop impaction and ingluviolith formations. Crop burns are usually found in hand reared birds due to feeding of excessively hot food. Foreign bodies may penetrate wall of the crop, leading to necrosis and loss of thecrop wall and food migrating to subcutis and wall of the neck, leading to widespread inflammation and necrosis (Schmidt, 1999). The crop wall may be desiccated if it has exposed with air for some time and pigeons will tolerate extensive crop wall loss, as long as wound can be closed with healthy tissues (Forbes, 2002). Crop fistulation in birds are due to sharp iron object (Phaneendra and Saibaba, 2015), crop injuries in birds by animal bites, foreign body ingestion, feeding excessively hot food grains, chronic irritations etc., (Harrison, 1987), foreign body penetration causing crop injury in a pigeon (Basha *et al.*, 2010) . Crop rupture should be treated as an emergency as the bird will have been unable to drink leading to severely dehydrated condition. Trimming of the necrosed edges of the structure before its repair was advised by Bennett and Harrison (1994) in oesophageal perforations and Coles (2008) in fistulation of crop. Early presentation and appropriate surgical reconstruction of oesophagus ensured a good recovery in the present case without any postoperative complications.

4. Conclusion

Appropriate anaesthetic technique and surgical reconstruction of crop ensured an uneventful recovery in the present case without any postoperative complications.

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Author Profile

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Figure 1: Photo graph showing crop fistula

Figure 2: Photo graph showing crop wound edges were closed with two layers of inversion pattern

Figure 3: Photo graph showing Skin was closed using by simple interrupted pattern

Figure 4: Bird recovered uneventfully