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Successful surgical management of crop fistula in rose -ringed parakeet (*Psittacula krameri*)

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Abstract
Crop rupture is a common ailment in psittacine birds which might be due to accident, chronic irritation and feeding of hot food by owners. A two month old rose -ringed parakeet was presented at TVCC, College of Veterinary Science, Durg (C.G), with a history of oozed out of food materials from the crop region for the past one day. Physical examination revealed, crop was opened and food materials coming out through the opening. The wound was cleaned with Povidone Iodine. Surgery was performed under local anesthesia 2% lignocaine hydrochloride gel. For suturing the crop using vicryl no. 2/0 by lambert's suture pattern and skin was closed using silk with simple cross mattress pattern. The rose -ringed parakeet showed uneventful recovery after 15 days.

Keywords: Indian green parrot, crop rupture, vicryl, anesthesia

Introduction
Cervical part of rose -ringed parakeet esophagus enlarged ventrally to a great extent to form crop. Crop is first food storage part of avian digestive system, which continues to proventriculus and gizzard. Full crop always susceptible for trauma injury. Peneterating wound may be due to animal bites, improper feeding technique, foreign body indigestion, trauma and excessive hot food feeding, can result in formation of rupture of crop and fistula opening. The crop of neonates is more fragile and susceptible to injury than the adult ingluvies [4].

Case history and observations
An rose -ringed parakeet (*Psittacula krameri*) of two month old was presented at TVCC, College of Veterinary Science, Durg (Chhattisgarh) with a history of wound in crop and crop contents oozed out from the fistula from the past one day. Physical Examination revealed the rose -ringed parakeet was looking dull and emaciated. The crop contents oozed out from the fistula and wound was noticed. Pain evinced on palpation was noticed. Serous discharge noticed from the crop. Fistula present on right side of ventrocaudal region (Fig.1).

Treatment and Discussion
In clinical examination revealed, crop was opened and food materials coming out through the opening. For surgical treatment the bird was placed ventro-dorsally and feathers were clipped around the crop wound. The wound was cleaned with liquid povidone iodine. The site of operation was prepared aseptically for surgery. Surgery was performed under local anesthetic 2% lignocaine hydrochloride gel. The ruptured crop was surgically repaired by debriding the edges of the ruptured part of crop separating the crop and skin. The crop was sutured using suture material vicryl 2/0 (polyglactin 910) by lambert's suture pattern (Fig.2) and skin was closed with simple cross mattress pattern with silk. (Fig.3). After skin suturing, the bird was showed uneventful recovery within 10 minutes (Fig.4). Silverex ointment was applied over the sutured site. Bandaging done around suture part to avoid self mutilation. Oral rehydration was performed and the owner advised to continue the oral fluid therapy. Post operatively parrot was treated with topical use of ointment silverex for 5-7days, syp Moxikind-CV 2.79gm @ dose rate of 2 drops BID by orally for five days. The rose -ringed parakeet showed uneventful recovery after 15 days of post surgery.
Crop fistulation in birds due to sharp iron object [6], crop injuries in birds by animal bites, foreign body ingestion, feeding excessively hot food grains, chronic irritations etc., [4] foreign

body penetration causing crop injury in a pigeon [1]. Trimming of the necrosed edges of the structure before its repair was advised by Bennett and Harrison (1994) [2] in esophageal perforations. Coles (2008) [3] suggested that using a catheter during repair of in fistulous crop to identify the mucosa. Early presentation and appropriate surgical reconstruction of oesophagus ensured a good recovery in the present case without any postoperative complications. Kumar *et. al.* (2016) [5] suggested that oesophageal anatomosis was performed under light plane of anaesthesia and recovered without any postoperative complications.

Fig 1: Crop fistula in rose -ringed parakeet

Fig 2: Crop sutured with Vicryl

Fig 3: Skin suture with interrupted cross mattress

Fig 4: Post operative rose -ringed parakeet

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