



Manual Manipulation of egg in Indian parrot (Alexandrian parakeet) suffering from egg bound condition

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Abstract

An Indian parrot of one and a half years, weighing 160 grams was presented to Pet Square Clinics, Channi Himmat, Jammu with history of bird unable to lay egg for the past three days. Also, the bird was anorectic from last three days, persistent tail wagging and there was absence of defecation. On Clinical examination, bird was found to be in active and alert state with frequent straining of the cloaca, labored breathing. Cloacal palpation revealed the presence of egg in the cloacal region. Radiological examination also revealed the presence of one fully developed egg in the cloacal region. The egg was removed by the Manual manipulation method.

Key words: Egg binding, Indian Parrot, Manual Manipulation Method

The avian oviduct is a tubular organ responsible for forming the egg by the secretion of components surrounding the yolk. An egg bound is a condition where a partially or fully developed egg gets lodged in the shell gland or vagina and cannot be expelled by the bird at the normal rate (Srinivasan et al., 2014). It is a multifactorial disease which may occur due to the dysfunction of muscles of oviduct, deficiencies of minerals and vitamins (especially Calcium deficiency or impaired absorption of calcium), low protein levels in diet or malabsorption, systematic diseases, shock or stress conditions, sedentary lifestyle (like pet birds), obese birds (Bowles, 2006). Egg bound condition is frequently observed in small sized birds (Pollock, 2002), birds laying for first time (Bowles, 2006), which results in life threatening emergencies and high mortality (Laila, 2016). If not treated it may lead to formation of granuloma, uterine impaction, abdominal laying and lastly death of bird may occur. The case of egg-bound condition was previously reported by Joy and Divya (2014) in Chicken, Saranya et al. (2017) in Cockatiel and Reddy and Sivajothi (2018) in Budgerigar, M Bharathidasan et al. (2019) in desi hen and Kumar et al. (2020) in parrot. In this case report the egg was successfully removed by manual manipulation method in Indian parrot.



Case history and Clinical examination

A parrot of one and half year age was presented to the Pet Square Clinic, Channi Himaat, Jammu with the history of reduced activity, anorexia, absence of defecation from last three days. On physical examination it was revealed that the egg was stuck in the cloacal region. Clinical examination revealed that the bird was in active and alert state with frequent straining of the cloaca, reluctant to perch, normal body temperature, labored breathing and persistent tail wagging were present.



Fig. 1: Egg binding condition in Indian Parrot



Fig. 2: Bird held in dorsal recumbency



Fig. 3: Radiographic view of egg bound in Indian Parrot



Fig. 4: Removal of egg after manual manipulation

Treatment and Discussion

After restarting the bird in the dorsal recumbency (Fig. 2) lignocaine HCl (2%) jelly was applied in the vent region. Slight pressure was applied and egg was gently rotated to turn the broad end toward vent opening and extracted out as the bird was unable to do on its own. There was no occurrence of



prolapse of vent, after the removal of egg (Fig. 3). Inj. Meloxicam 0.5 -1 mg/kg B.W. I/M once, Tab. Enrocin (Pfizer) 15 mg for three days and Drops Verol (Pfizer) 3-4 drops bid for 7 days were prescribed for bird after egg removal. As soon as the egg was removed bird showed the signs of relief, breathing returned to normal rate and reduction in tenesmus were observed. The feed intake in bird started to increase from the succeeding days. Egg bound condition is inability of birds to pass the egg through the reproductive tract and becomes one of the life-threatening emergencies if treatment is not provided at appropriate time. It is commonly reported in reproductively active birds and the ones which are not introduced to the male birds (Harrison and Lightfoot, 2006). It is multifactorial disease which may occur when the egg is too big (e.g., double yolked egg) or because of hypocalcemia, calcium tetany (Rosen, 2012; Laila, 2016), concurrent systemic disease and low environmental temperature (Anne and Girl, 2006) or previous trauma to vent (usually pecking) or vagina which leads to obstruction of ovipositioning. It may be prevalent in young birds laying for the first time before proper development of body or in obese birds. It often occurs in the spring and summer seasons because of overstimulation of birds due to increased day length and light intensity (Espinosa, 2019). Management of egg-bound condition depends upon the physical condition of the bird along with the duration since the disease occurred and the location where the egg is lodged in the reproductive tract and the condition of the bird when the bird was presented to the veterinarian. Providing bird with good nutrition and husbandry practice may prevent the occurrence of this condition. Providing optimal environmental humidity and temperature (85-95°F), supplementing minerals like calcium, phosphorus, selenium and vitamins like Vitamin A, D, E can be used for the prevention. Treatment of the condition includes non-surgical and surgical approach which may depend upon the lodgment site of the egg in reproductive tract and general condition of bird. For the non-surgical or manual approach, the bird is supplemented with calcium and dextrose, injections of oxytocin and topical intra-cloacal administration of progesterone E2 or lignocaine HCl 2% is recommended (De Matos and Morrisey, 2005; Harrison and Lightfoot, 2006). Surgical method includes insertion of syringe into the egg present in abdominal cavity (ovocentesis) and removal of the contents to reduce the egg size and manage the condition. In case of ectopic egg or obstruction of the reproductive tract abdominal surgery is indicated along with the follow up care which includes use of antibiotics and fluid therapy, maintenance of proper hygiene, environmental humidity and temperature and proper nutrients supplementation to control the concurrent bacterial infection and reduce the pain (Harrison and Lightfoot, 2006; Kaikabo et al., 2007; Mans and Sladky, 2013). Regular supervision of the birds which displays any symptoms of straining or egg binding minimize the condition in birds.



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