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MANAGEMENT OF EGG BOUND CONDITION IN NON-DESCRIPT NIGERIAN INDIGENOUS CHICKEN-A CASE REPORT

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ABSTRACT

A 43 weeks-old non-descriptive Nigerian indigenous hen was presented with a primary complaint of straining, swelled abdomen and anorexia for twelve hours (i.e. between 8.00am to 7.00pm). The client also reported that the bird was raised under free-range scavenging system, and the bird was fed occasionally only on grains, left-over feed and water in addition to what it has gotten from scavenging. Upon physical examinations egg bounding was detected and body weight 1.4kg. The bird also appeared dull and depressed. The egg was removed carefully through cloacal opening followed by lubricating the cloacal area through the vent with mineral oil in order to keep moist. The egg was found to be large and was a normal shelled egg. Post-operative, anti-biotic (Oxytetracycline hydrochloride 5.5% w/v injection, i.m) was given at 0.25ml/kg body weight for every twenty four hours for two days along with oral calcium supplement (calcium gluconate 23%) once at 0.2ml per pound of body weight, which is 100mg/kg. The bird recovered unchanged and with no complications. The client was advised to provide adequate nutritional supplement such as calcium and mineral and good management practices, the farmer was also advised to present any suspected sick birds quickly for instance medical treatment.

Key words: *Non-descript hen, Cloaca, Vent, Lignocaine, Mineral oil.*

INTRODUCTION

Egg binding is the condition characterized by inability of a hen to deliver an egg with normal effort within a normal period of time (Peter, 2002; Stout, 2016). The condition could also be termed as retained egg or dystocia (Worell, 1999; Graham, 2016). Obstruction of oviduct or uterus by an egg is a common problem seen mainly in young female birds at the initial stage of laying period (Joy & Divya, 2014), and may lead to fatal peritonitis and high mortality. Hens with deficiency in vitamins and minerals mainly calcium, chronic egg laying (Bowles, 2006; Rosen, 2012), overweight, concurrent systemic illness, hypothermia, malformed eggs or improperly positioned eggs are at higher risk for developing this condition (Joyner, 1994; Anne & Girl, 2006; Stout, 2016). Clinical signs vary according to severity and secondary complications, such as abdominal straining and distention,

depression, persistent tail wagging, a wide stance, failure to perch, dyspnea, and/or sudden death (Johnson, 2015). Diagnosis of the egg binding condition is mainly based on the owner's history and clinical signs. A through physical examination of the individual birds including examination of vent, feathers, feet and abdomen and status on pain evincing while abdominal and coelomic palpation for the detection of eggs (Krautwald- junghanns, et al., 2002; Samour, 2008; Reddy & Sivajothi, 2017). Egg binding condition can be managed by manually expelling the egg or by surgical removal of the egg (Harrison & Lightfoot 2006; De Matos & Morrisey, 2005). In this paper, diagnosis and management of egg bound condition in a non-descript Nigerian indigenous hen was reported.

HISTORY AND CLINICAL OBSERVATION

A 43 weeks-old non-descript Nigerian indigenous hen was presented to El-Nazeer Animal Care

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(commercial animal health and production center) Paiko, Niger State with a primary complaint of straining, swelled abdomen and anorexia for twelve hours (i.e. between 8.00am to 7.00pm). The client also reported that the bird was raised under free-range scavenging system, and the bird was fed occasionally only on grains, left-over feed and water in addition to what it has gotten from scavenging. Upon physical examinations egg bounding was detected and body weight 1.4kg. The bird also appeared dull and depressed.

TREATMENT AND DISCUSSION

The sick bird was restrained manually (towel technique) with cautions in approach to prevent over-constraining the patient, as this could cause physical harm. Thereafter, the vent was washed with clean water containing antiseptic disinfectant to remove the dirt and debris. The calculation of required dosage of tropical anesthetic drug on birds usually depends on the clinician's experience and the knowledge of the patient's status. Therefore, in this case very low amount of Xylocaine (lidocaine HCl) 2% jelly was applied over the cloaca part through the vent to desensitize it and to enable manipulation, followed by lubricating the area with mineral oil in order to keep moist and get best result. The retained egg was gently manipulated with hand and the egg was removed carefully through cloacal opening without breaking inside, otherwise it might cause serious consequences of the wall of the reproductive tract and egg yolk peritonitis. The egg was found to be large and was a normal shelled egg. Post-operative, anti-biotic (Oxytetracycline hydrochloride 5.5% w/v injection, i.m) was given at 0.25ml/kg body weight for every twenty four hours for 2 days along with oral calcium supplement (calcium gluconate 23%) once at 0.2ml per pound of body weight, which is 100mg/kg.

The bird recovered unchanged and with no complications. Suspected causes of egg bound include chronic egg laying with oviductal muscle dysfunction, vitamin deficiencies, malformed eggs, and damage to the oviduct, systemic disease, species predilection, or calcium metabolic syndrome (Bowles, 2006). All seed diet would lead to egg binding because it would be low in calcium as well as other minerals. In this case the dietary imbalance was assumed to be one of the causes since the owner was giving only grain and chicken left over. Joy & Divya, (2014) stated that, young female birds at the initial stage of laying period were prone to egg bound which is also a second factor in the present case. According to Joy & Divya, (2014), gentle manipulation (milking) is sufficient to treat the condition if the egg is very close to the vent, in failure cases salpingohystorectomy (surgery) could be adopted. Rooskopf, (1996); Harrison & Lightfoot (2006); Eitan & Soller, (2009); Johnson, (2015) opined that, egg binding can result in long-term egg retention and granuloma formation, uterine impaction, extra-uterine eggs, and death among others was the most condition, if the egg bound condition was left untreated, but in the present report such complications were not reported.

ADVICE TO CLIENT

The client was advised to provide adequate nutritional supplement such as calcium and mineral and good management practices, the farmer was also advised to present any suspected sick birds for instance veterinary attention.

CONCLUSION

It is concluded that gentle manipulation (milking) of egg binding in this case report of young female (43 weeks old) non-descript Nigeria indigenous chicken was successful. The fact that there was no

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complication and the egg itself has not broken in the cloaca shortened the recovery time to a minimum.

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