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Digestive tract impaction: An unusual cause of mortality in backyard chicken

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Abstract

Repeated incidence of upper digestive tract impaction was observed in Gramapriya young chicks reared in open foraging system. The impaction was due to the ingestion of shade net strings. Accidental intake of shade net strings caused mechanical obstruction, inflammation and secondary bacterial infection resulted in mortality of young chicks. Mortality was also observed in birds in which the shade net string encircled at the base of tongue which caused strangulation and ischemic necrosis. Close monitoring and removal of shade net strings in the foraging area stopped the mortality in chicken.

Keywords: Back yard chicken, impaction, shade net string and strangulation

Introduction

Backyard poultry rearing is a traditional allied agricultural farming activity which plays a vital role in alleviating poverty, nutritional food supply, women empowerment and ensuring subsidiary income to the rural households in India. The total backyard poultry population in India is 317.07 million which increased by 45.78% over previous census against 4.5% increase of commercial poultry population (BAHS, 2019) [2]. Poor production potential and lack of knowledge on latest management techniques are the major problems faced by the backyard poultry farmers. Spread of diseases from wild birds and predators will cause significant loss in backyard poultry farming and this study deals with the mortality in backyard chicken due to foreign body impaction in the upper digestive tract.



Fig 1: Shows the portable backyard poultry cage modified into brooder cage with shade net covering. The shade net strings hanging from the cut end of the shade net covering acted as a source of impaction for the backyard chicken

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Case history and clinical findings

Fifty (50) numbers of Gramapriya day old chicks were purchased and maintained in a portable backyard poultry cage which was modified into brooding unit by providing electric bulbs as a source of heat to young chicks. The cage was completely covered with shade net to protect the day old chicks from cold air. The chicks were maintained inside the brooder cage up to the age 4 weeks.

From 5th week onwards, the chicks were allowed to forage in an enclosed area and the shade net covering of the poultry cage was removed for a height of 1.5 feet from the ground for the easy monitoring of chicks during the night time. The strings hanging from the cut end of the shade net covering acted as a source of impaction to backyard chicken.

From 5th week onwards, repeated incidence of morbidity was observed due to the ingestion of shade net strings. A five week old bird, died with the history of isolation, inanition and anorexia. On post-mortem examination, oral cavity revealed, swollen pale and oedematous tongue. The black coloured shade net string tightly encircled at the base of the tongue causes strangulation. No specific lesions were observed in other organs.

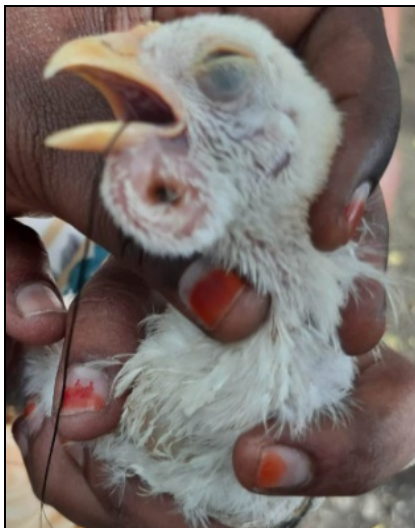


Fig 2: It depicts the case of impaction caused by the linear, black colored shade net string which is hanging from the oral cavity. An abscess due to secondary bacterial infection is also noticed just below the lower beak.

A week later, one more bird presented alive in the condition of anorexia, ruffled feathers, ocular discharge and a black coloured linear shade net string hanging from the mouth. An abscess with perforation was also observed behind the lower beak region. The bird died at the time of examination. On necropsy, it was observed that, the shade net string trapped and tightly packed in the form of ball inside oral cavity. The oral mucosa was congested. The air sacs were cloudy in appearance.



Fig 3: Likely illustrates the pathological findings discussed in the report, such as the congested oral mucosa, oedematous tongue, and tightly packed shade net string inside the oral cavity.

Discussion

Now a days, extensive system of poultry rearing is gaining popularity among poultry farmers as the produce obtained from these birds have high marketing demand. But, at the same time, the birds reared under extensive or backyard system are exposed to various threats like predators, spread of diseases from wild birds and digestive tract impactions due to the ingestion of foreign bodies. Foreign bodies such as nails, bale net wrap, shade net string, linear grass forage, and other metal objects pose a major threat to backyard chicken as they lack teeth to screen them. Anny S Huang *et al.*, 2019 ^[1], reported that ingestion of non-feed material may be attributed to stress, overcrowding, nutritional deficiencies and boredom. Ingesta such as compacted feedstuff, bread or tortilla pieces, soft plastic and wood shavings can also cause obstructions and impactions. In the present study, the ingested shade net string encircled at the base of the tongue arrested the blood supply to the tongue resulted in ischemic necrosis. In such cases, oral breathing causes cloudiness of the air sacs. Strangulation due to Gastrointestinal impactions resulting from ingestion of bale net wrap has already been reported (Benjamin *et al.*, 2015) ^[3]. The ingested shade net string trapped inside and tightly packed in the form of ball caused inflammation and induced secondary bacterial infection resulting in the formation of abscess. The birds affected with upper digestive tract impactions unable toprehend feed which could be the reason for anorexia and poor body condition. The cause of mortality is due to anorexia and septicaemia. Mortality was prevented when the condition noticed in the early stage and the ingested shade net string was removed manually. But, the condition gets worsen in unnoticed birds.

Conclusion

Based on the above study, it is observed that the backyard chickens are more prone for digestive tract impactions due to various foreign bodies. Hence, the poultry farmers should be sensitized about the vulnerability of back yard chicken to foreign body impaction. Close monitoring of birds and removal of potential threats causing impaction in the foraging area should be ascertained to counteract the problem.

References

1. Anny Huang S, Francisco Carvallo R, Maurice E Pitesky, Simone Stoute, Asli Mete. Gastrointestinal impactions in backyard poultry. Journal of Veterinary Diagnostic Investigation. 2019 May;31(3):368-370.
2. BAHS. Basic Animal Husbandry Statistics. Department of Animal Husbandry and Dairying. Ministry of Fisheries, Animal Husbandry and Dairying, Government of India; c2019.
3. Benjamin J, Schlegel, Marina Brash L. High mortality in laying hen pullets caused by crop and gizzard impactions associated with ingestion of bale net wrap. Can. Vet J. 2015 Jun;56(6):564-566.
4. Singh R, Bhatia J, Joshi HR. Foreign body ingestion and its impact on poultry health in rural settings. Journal of Animal Science. 1994;72(4):1024-1030.
5. Gowda NK, Prasad CS, Ramesh V. Digestive tract impaction in poultry due to foreign materials. Indian Journal of Poultry Science. 1994;29(1):45-50.
6. Hasan S, Sharma V, Patel G. Studies on the epidemiology of gastrointestinal impactions in rural poultry systems. Journal of Veterinary Medicine. 1995;42(2):156-161.

7. Naeem K, Niazi S, Yousaf S. Case reports on foreign body ingestion in poultry reared under extensive systems. *Avian Diseases*. 1995;39(1):67-71.
8. Afzal M, Abbas R, Mirza G. Preventative measures against foreign body ingestion in backyard poultry. *Poultry Health*. 1991;23(6):457-462.

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