

INCIDENCE OF UNUSUAL FOREIGN BODIES IN THE GIZZARD OF INDIAN BLUE ROCK PIGEON, *Columba Livia* LINNAEUS 1758 – A REPORT

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Abstract: A dead Indian Blue Rock Pigeon, *Columba livia* was presented to Animal Rahat Solapur team for post-mortem examination. Post mortem was done by using standard protocol under the day light. After going through all the visceral organs, gizzard was separated out. In cross section of gizzard, small diamond shaped hard plastic bodies, plastic beads and disc shaped plastic material were observed along with number of small size of grits. This case describes presence of unusual foreign bodies in the gizzard of Indian Rock Pigeon (*Columba livia*).

Keywords: Indian Rock Pigeon, foreign bodies, gizzard, post mortem

Introduction

Indian Blue Rock Pigeon, *Columba livia*, vernacular name, Kabutar in *Hindi language*, is found throughout the India from the whole peninsula of India to the extreme north-west, throughout the Himalayas to a considerable elevation, Kashmir, Nepal, Sikkim and Tibet (E C Stuart Baker, 1913; Rakesh Prakash Bharat, 2010). They are found mostly in large buildings, such as Churches, Pagodas, Mosques, Tombs etc. and frequently entering the verandas of inhabited houses and breeding in the cornices. Holes in walls of cities or towns, too are favourite places for them and in some parts of the country, they prefer holes in side wall of the wells, in the west of India, the Deccan, etc. (E C Stuart Baker, 1913; F. Batool et al 2019).

Pigeons are opportunistic eaters and their diet consists principally of grain and seeds (principally a grain feeder), but they also eat berries, fruit, and shoots of young plants and certain trees. It was also observed that they eat very young shoots of the mustard plant and in the wheat-growing countries they are an unmitigated nuisance (E C Stuart Baker, 1913). Their willingness to a wide variety of foods makes them relatively common in cityscapes and they might eat such small plastic material along with seeds.

The gizzard is hind part of the stomach and is a disk shaped and highly muscular especially modified for grinding of food. The gizzard has a thick muscular wall and may contain small stones, or gastroliths, that helps in the mechanical breakdown of seeds and other foods. In this sense, the gizzard is comparable to the teeth of other animals. One of the gizzard's two orifices receives ingesta from the glandular stomach, proventriculus and the other, empties into the duodenum. Gizzard also has number of functions such as along mechanical breakdown of feed, chemical degradation of nutrient and regulation of feed flow and responds rapidly to changes in the coarseness of the diet (Svihus B.,2011).

Case report and discussion

A dead Indian rock pigeon bird was presented to Animal Rahat Solapur team for post-mortem examination. Post-mortem was conducted as per standard protocol under the day light. After thorough examination of visceral organs, alimentary tract was separated out. When the gizzard was cut open, 11 (numbers) small diamond shaped hard plastic bodies, 2 (numbers) beads of plastic and 1 (number) disc shaped plastic material were observed along with number of small size of grits. The mucous membrane of the gizzard appeared normal as there was no change in the gross appearance or no haemorrhages in the gizzard due to presence of these small foreign bodies. This report describes the presence of these unusual foreign bodies viz. diamond shaped hard plastic bodies, plastic bead and disc shaped plastic material.



Figure 1: Presence of foreign bodies in cross section of Gizzard

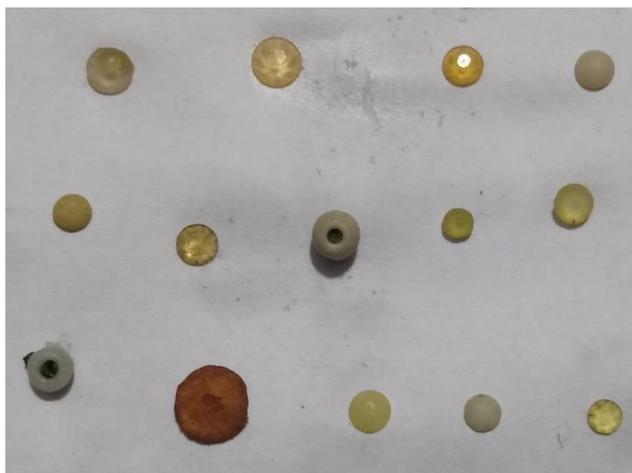


Figure 2: Diamond and discs shaped plastic material, plastic beads

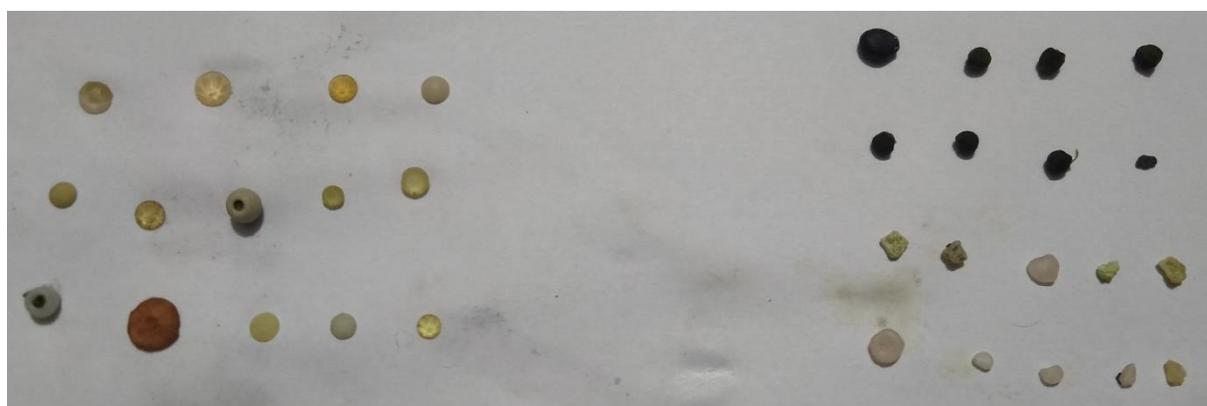


Figure 3: Presence of all foreign bodies along with small pebbles

Discussion

Different types of foreign bodies such as nails, blades, needle, wooden splinters, sticks, coins and wires have been reported in the digestive tract of birds. Aruljothi A. *et al* (2007) reported stainless steel blades in gizzard of broiler chicken during routine post-mortem of bird for training purpose. Galav V. *et al* (2010) reported coin in the digestive system of peafowl which was lodged in between isthmus and proventriculus wall which led to myentric plexus dysfunction leading to reduced GIT motility and the intestinal lumen devoid of feed contents. F. Hayati *et al* (2011) reported a needle in proventriculus of common mynah which was removed surgically by ventriculotomy. Rao and Acharjyo (1990) reported deaths due to obstructive vegetable sticks and thorns in green pigeon and white peacock. Adamcak *et al.*, (2000), reported string of 7 cm long in proximal part of large intestine. Present case describes presence of diamond shaped hard plastic bodies, plastic bead and disc shaped plastic material.

F. Hayati *et al* (2011), Wells (1984) and Adamcak *et al.* (2000) reported foreign bodies in the crop, proventriculus, and gizzard, and Wagner (2005) reported linear foreign bodies like string can extend into intestines. Foreign body ingestion in birds may be the result of their curious nature or their compulsive pumping for food (F. Hayati *et al* (2011). Environmental stressors such as sudden placement in unfamiliar surroundings housing may also result in foreign body ingestion (Morshita 1999).

Ibrahim Waziri Musa et al 2011 reported nails of various sizes, bolts and nuts, sharp objects like pieces of wood, palm kernel shells and wires of various sizes are the major causes of traumatic ventriculitis.

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