



## TORTICOLLIS AND CONTAGIOUS PARALYSIS OF PIGEONS: A MINI REVIEW

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### ABSTRACT

To fulfill complete hobby and finally economically solvent, need to know the true causes of the diseases of pigeons. Oral communication with many pigeon keepers helped to analyze this review. The result suggested that without proper pathological tests, this is quite impossible to detect the true causes of those diseases. Sometimes, pigeon keepers observed the same types of symptoms of the different health issues of their pigeons.

## 1. INTRODUCTION

### *Torticollis*

Torticollis is a common symptom in various poultry species due to infectious, non-infectious, and nutritional causes. Newcastle Disease (ND) is caused by RNA virus (paramyxovirus serotype 1) (Ali *et al.*, 2014). This disease is highly contagious affecting poultry species of all ages and causing huge economic losses (Aldous and Alexander, 2001). 8000 species of birds including chickens, turkeys, pigeons, peacocks-peahens, and ducks are susceptible to this infection (Kaleta and Balbauf 1988). Among non-infectious causes, head injuries, roundworm and tapeworm infestations, and ammonia toxicity can lead to this clinical manifestation in poultry. The nutritional causes may be deficiencies in magnesium, vitamin E (somersaulting), and thiamine. Various food poisoning like botulism, heavy metal (lead toxicity), and Aflatoxicosis are associated with this problem (Ali *et al.*, 2014).

The paramyxovirus (PMV-1) has variable pathogenicity, produces typical nervous disorder, respiratory or reproductive signs in affected birds. Morbidity is usually high and mortality varies 0-100% depending upon the immunological status of birds and the pathotype of the virus (Ali *et al.*, 2014).

This virus affects the cerebellum and brain stem cells, producing multifocal glial nodules and necrosis, mild lymphocytic infiltration, demyelination, and degeneration of the Purkinje cells in the cerebellum (Okoye *et al.*, 2000). The trachea, lungs, and spleen were shown necropsy and cloacal swabs confirm shedding of the ND virus through virus isolation using egg inoculation (Alexander, 1989). The paramyxoviruses are mostly transmitted through horizontal routes and survived for long periods at ambient temperature, and can persist in feces, litter, cages, etc. The paramyxoviruses are quite susceptible to disinfectants, fumigates, and sunlight and can be inactivated by temperatures above 50°C, acidic pH, formalin, and phenol (Ali *et al.*, 2014).

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It is rather suggested that the ND vaccine should be given to all birds including pet birds like pheasants, pigeons, ducks, etc. (Chong *et al.*, 2010). Tablet Mits and Deltacortril, vitamin B12 (syrup), and syrup Phenergan are effective on this disease (Ali *et al.*, 2014).

### **Contagious Paralysis**

The causative agent of this condition was a virus identified by Cornwell (Cornwell *et al.*, 1967) as a herpesvirus. Signs of illness always started with declination to walk or fly; circling and torticollis were sometimes observed. The mortality rate ranged between 40-80% from a few weeks to several months (Mohammed *et al.*, 1978). The objective of this study is to insist all pigeon keeper's complete pathological tests for their pigeons' death.

### **Pathological Tests**

Symptomatic treatments are not the real solution at all (Kabir, 2014). After any death case of pigeons, need to send those corpses to veterinary hospitals. They will complete the visceral test as well as the microscopic test for identifying those viruses that were responsible for Newcastle Disease (ND) virus (paramyxovirus) and herpes virus as well. All veterinary hospitals have these facilities. In addition, any agricultural universities have laboratory facilities to complete these tests. All pigeon keepers would have the link to those centers to get proper support for the above incidents in their lofts.

## **2. CONCUSSION**

This is quite impossible to detect any diseases without pathological tests. Only disinfectant and biosecurity is the major subject for suppressing these pathogenic viruses. In Bangladesh, most lofts are not clean enough and those pigeon keepers undergo lots of diseases of their favourite pigeons. After any death whether we know those names or not, we will be completed the postmortem from the veterinary hospitals for ensuring the future attack of such diseases.

## **3. CONFLICT OF INTEREST**

All authors have declared that there is no conflict of interests regarding the publication of this article.

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