

### **Infectious Laryngotracheitis in a Hobby Native Chicken Farm**

**Jayanthi.N, Jaisree.S, KalaiSelvi.G, Bharathi.R, Karthik.K, Ananda Chitra.**

**M Senthilkumar.T.M.A, Harikrishnan.T.J. and G.Dhinakar Raj.**

*Central University Laboratory, Madhavaram Milk Colony, Chennai -600 051*

Infectious laryngotracheitis (ILT) is an upper respiratory tract disease of chickens caused by infectious laryngotracheitis virus (ILTV, Gallid herpesvirus 1), a member of the Alpha herpesvirinae sub-family (genus Iltovirus). A backyard holding basically as a hobby venture experienced sudden mortality of birds on the 3<sup>rd</sup> day in a newly purchased flock of 56 birds from rural areas/villages of Tiruvannamalai region. The mortality gradually spread to the resident flock with a stock of about 300 birds which were apparently normal and a good weight gain. On inspecting the farm, it was under category I farm (Village or backyard production) based on the volume of operation and level of biosecurity in the farms per FAO classification. The birds were reared in deep litter floor, semi intensive system with less shade cover and improper ventilation in isolation sheds of infected birds. Clinically, the birds were fair in body condition, showed signs of dullness, weakness, retraction / drooping of the head and wings, closed eyes, mild conjunctivitis, mildly swollen head and cyanosis of the comb before death. The salient necropsy findings were conjunctivitis, sinusitis, severe laryngotracheitis with necro hemorrhagic mucosa, ulceration and occlusive pseudomembrane with seromucoid discharge in the trachea, serofibrinous peritonitis and cheesy material in the infraorbital sinus. Molecular screening for bacterial and viral pathogens revealed the presence of *E.coli* in the sinus and ovary swab. ILT was detected by PCR. Antibio gram revealed sensitivity to Cefotaxime, Intermediate sensitivity to Gentamicin, Sulphadiazine, Amoxycylav and resistance to Tetracycline. Histopathologically the tracheal mucosa and submucosa were diffusely irregular and thickened with multifocal erosion and ulceration. The tracheal mucosa was adhered by an extensive fibrino - necrotic membrane with an inflammatory infiltrate and within the mucosa, respiratory epithelial cells fused and revealed viral syncytial cell nuclei with round eosinophilic intranuclear inclusion body with a clear halo suggestive of ILT disease which was confirmed by PCR. This investigation documents the probable presence of ILT virus in a latent state in respiratory tissues in village chickens which may be reactivated by stressors such as transport or re-housing with unfamiliar birds as in this case and warrants the need of biosecurity assessment and study of seroprevalence of respiratory diseases in village chicken flocks.