

**LARINGOTRAQUEÍTE INFECCIOSA DAS AVES: DIAGNÓSTICO LABORATORIAL,
CARACTERIZAÇÃO VIRAL E MEDIDAS DE CONTROLE EM UM SURTO EM AVES
DE POSTURA COMERCIAL NO ESTADO DE SÃO PAULO, BRASIL**

*(AVIAN INFECTIOUS LARYNGOTRACHEITIS: LABORATORIAL DIAGNOSTIC, VIRAL
CHARACTERIZATION AND CONTROL MEASURES IN AN OUTBREAK IN COMMERCIAL
LAYING HENS FROM STATE OF SAO PAULO, BRAZIL)*

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Avian infectious laryngotraqueitis (ILT) is a respiratory pathogen caused by *Herpesviridae*, *Gallid herpesvirus 1*. The disease is responsible for economic losses in poultry production. The objectives of this report were compare the performance of diagnostic techniques, carrying out the molecular characterization of ILT virus and describe the epidemiological diagnosis and prophylactic measures applied in an outbreak of ILT that has been occurring in Guatapar, state of Sao Paulo, Brazil. From December 2010 to November 2011, eighty-three pooled samples coming from flocks of commercial laying hens were analyzed using ELISA and PCR. Of these, forty-five samples were submitted to the histopathological examination. Official control measures were conducted in two steps: preliminary phase (epidemiological diagnosis by applying a specific questionnaire to guide the planning of unspecific prophylactic measures of biosecurity) and execution phase, with design of legal instruments to delimitate the infected zone (sanitary education of all farmers and biosecurity procedures, passive surveillance, official supervision of all activities and authorization for TCO vaccine). Thirty-two samples were positive in PCR (38.55%), using ICP4 gene (688 pb). Besides, DNA of the 12 field samples was sequenced, showing profiles different from two commercial vaccine strains (CEO and TCO). Seropositive birds were detected by ELISA in 98.79% of the samples. Histopathology showed lymphoplasmacytic inflammatory infiltrates, associated with the presence of syncytial cells with or without intranuclear eosinophilic inclusions in 31.1% of the samples. These results enable to infer that ELISA was highly sensitive in ILT antibody detection, while PCR and histopathology were specific in the ILT virus identification and in identifying lesions characteristics of ILT,

respectively. The official program is important to obtain farmers' collaboration and biosecurity measures can prevent the occurrence of new cases of ILT. Furthermore, laboratory procedures are important to support the adoption of control measures by the Official Program of Poultry Health.

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