CONTENTS

ABBRIVETIONS

AGID	: Agar gel immunodiffusion.
AGPT	: Agar gel precipitation test.
BP	: base pair (each 1000 base pair equal to one kilo base).
CAM	: Chorioallantoic membrane.
CAMS	: Chorioallanotic membranes.
C.A	: Cell associated vaccine.
C.C	: Equal to millimeter.
C.E.O	: Chicken embryo origin vaccine.
CE	: Chicken embryo.
C.F	: Cell free vaccine.
CPE	: Cytopathic effect.
CMI	: Cell mediated immunity.
EDS	: Egg Drop Syndrome.
ECE	: Embryonated chicken eggs.
EID_{50}	: 50% Embryo infective dose.
ELISA	: Enzyme linked Immuno Sorbant Assay.
FA	: Fluorescent Antibody Technique.
IFAT	: Immuno Fluorescent Antibody Technique.
ILTV	: Infectious laryngotracheitis virus.
ILT	: Infectious Laryngotracheitis.
LT	: Laryngotracheitis.
IB	: Infectious bronchitis.
IBD	: Infectious bursal disease.
IP	: Immuno peroxidase.
Kb	: Kilo base (DNA length measurement unit).
KD	: Kilo Dalton (protein weight measurement unit).
MICE	: Mortality index for chicken embryo.
ND	: Newcastle disease.
N.M	: Nanometer.
NI	: Neutralization index.
PCR	: Polymerase chain reaction.
PM	: Post mortum examination.
P.I	: Post inoculation.
P.V	: Post vaccination.
RFLPS	: Rstriction fragment length polymerphism.
SNT	: Serum neutralization test.
SPF	: Specific pathogen free.
T.C.O	: Tissue culture origin vaccine.
VI	: Virus Isolation.
VN	: Virus neutralization.

Summary

In this study, a trial to investigate the current status of ILTV infections among chickens in Sharkia Governorate. Egypt, studding the relations between the isolated field isolates and two types of vaccinal strains (C.E.O. and T.C.O) and choice suitable program for vaccination.

Regarding to the current status of ILT at Sharkia Governorate, Forty flocks were chosen with no history of vaccination against ILTV. These flocks were suffered from respiratory signs characterized by dyspnea, gasping, coughing, and expectoration of mucus with blood and conjunctivitis with morbidity up to 90% and mortality 2-35% with mucus to mucus with blood in larynx and trachea. Tissue suspension of collected larynx and trachea were subjected to virus isolation in ECE. At least three successive ECE passages were required for each sample to be negative. Eight field ILTV isolates succeeded to induce formation of lesions of variable characters on the inoculated CAMS of ECE beside dwarfing of the inoculated embryos .The field virus isolates identified by AGPT, VNT, MICE test (Pathogencity test) and histopathologically by detection of characteristic oesinophilic intranuclear inclusion bodies.

All field outbreaks occurred in summer season in broiler chickens. Virus isolations showed fine pocks on CAMS as early as in the first passage, which was a characteristic of a vaccinal adapted strain virus.

Experimental infection was done to investigate the pathogencity of field isolated virus via occular route infection at 65- days old balady (Saso) chickens. The clinical and P.M finding in experimentally infected

chickens were less in severity than that occurred in natural infection in all isolates except isolate No. 3 that was similar to the natural infection.

Slide smear technique for diagnosis of ILT can be used effectively as a rapid, routine diagnostic test by examination of tracheal smears obtained from infected chickens for detection of the pathognomonic intranuclear inclusion bodies.

The re-isolation trials from tracheal swabs of the infected chickens were successful till the 6^{th} day post infection.

Histopathological changes were restricted to larynx, tracheas, lungs and air sacs in both naturally and experimentally infected chickens. Meanwhile, the natural infection lesions were more severe.

The vaccination was better at 30 days- old with nasal instillation or eye dropping routes using (T.C.O) vaccine.

The degree of relatedness between the field isolate and (C.E.O) vaccine was 70.7% and with (T.C.O) vaccine was 50% and the relatedness between the two different types of vaccines (T.C.O) and (C.E.O) was 35.4%.