

Detection of Newcastle Disease Virus Antigen and Antibody in Vaccinated And Unvaccinated Local Chickens in Abeokuta

OTESILE, E.B., OYEKUNLE, M.A., ONI, O.O., ADEBOWALE, O.O., KEHINDE O.O., OJO, E.O., AKINDUTI, P.A.

College of Veterinary Medicine, University of Agriculture Abeokuta, Ogun State.

ABSTRACT

The presence of Newcastle disease (ND) antigen was determined in vaccinated and unvaccinated local chicken and ducks using the antigen rapid test kit (Anigen® Animal genetics. Inc. Korea). Presence of antibody against ND virus was also determined using the haemagglutination inhibition (HI) technique in 58 randomly selected birds from two flocks of vaccinated and unvaccinated chickens .. The result showed presence of ND antigen in 13% of the vaccinated and 5 % of the unvaccinated birds. All vaccinated and unvaccinated birds sampled were positive for ND virus antibody with HI titre level ranging between 2^1 to 2^6 . There was no significant difference ($P > 0.05$) in the antibody titre produced by vaccinated and unvaccinated birds indicating endemicity of ND virus in Nigeria. This finding implies a need for the vaccination of local or free-range birds to induce vaccine virus immunity rather than field virus immunity which would prevent or control the spread of Newcastle disease.