



Origin and Diversity of Some NDV Strains, Isolated from Poultry in Albania

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Received February 02, 2015; Accepted March 27, 2015

Abstract: The velogenic Newcastle disease virus (NDV) causes a devastating form of disease in commercial poultry. In this study, we have characterized 4 isolates of NDVs that were isolated on the SPF embryonated eggs from the different region of Albania such as: Tirana, Durres, Elbasani and Lushnja according of OIE MANUAL 2009. The virulence of NDV is conventionally estimated by determining the intracerebral pathogenicity index (ICPI), in one day old SPF-chicks (Office International des Epizooties 2009). All isolates, had an index of intracerebral pathogenicity (ICPI) above 0.7. Phylogenetic analysis of all four isolates indicated that they had ¹¹⁶R-R-Q-K-R-F¹¹⁷ sequences at the cleavage site in the F protein genes, typical of virulent NDV strains. Phylogenetic analysis indicated that all four isolates had the same identity like the virus from Serbia (NDVSERBIA/749/2007) with identity from 98% to 99%. From those isolates, based on the genotype analysis, all strains formed a specific cluster within class 2, genotype VII viruses. This is the first study of this kind in our country. We believe that the research should continue for other circulating strains. Facing the epidemiological situation of those infections, we think that can be possible only by using a vaccine containing a strain with high antigenic level.

Keywords: *Newcastle, virus, F. gene, Cleavage site, Phylogenetic analysis, Albania.*

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