

in the described lesions was confirmed by PCR assays. These results suggest that viral infections might be common in cloned ruminants, and probably represent the first description of the concomitant infections of BVDV and BoHV-1 in a cloned calf. Additionally, the occurrence and the impact of these diseases in cloned ruminants should be investigated in an attempt to understand the contribution of viral infections to this specific group of cattle. **Keywords:** coinfections, bovine disease, histopathology, molecular biology. **Financial support:** UNOPAR; CNPq; CAPES; FINEP; Fundação Araucária/PR.

VV1379 - VARIATION IN NUCLEOTIDE HOMOLOGY OBTAINED BY AMPLIFICATION, CLONING AND SEQUENCING OF COMPLETE S1 GENE FROM FIELD SAMPLES OF AVIAN INFECTIOUS BRONCHITIS VIRUS

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The Infectious Bronchitis Viruses

(IBV) is an RNA virus that causes a highly contagious disease in chickens which results in significant economic losses in poultry industry. Due to RNA genome, the error rate of RNA polymerase is high and causes genetic mutations and recombination during replication, resulting in viral quasispecies. Furthermore, the viral genome has a surface glycoprotein (S), which is cleaved in subunits S1 and S2. The present work aimed to analyze the variation in homologies between sequences of S1 glycoprotein in samples from field cases of IBV. Three samples, containing clinical history and histopathological lesions indicative of infection with IBV were propagated in SPF embryonated chicken eggs for viral isolation, followed by RNA extraction and RT-PCR using primers to amplify complete S1 gene. In order to evaluate the IBV population present in the samples, the PCR products with 1720 bases pair were cloned into TOPO vector and used to transform competent cells. DNA from at least three clones from each sample was used in sequencing reactions. Consensus sequences were assembled using Sequence Scanner and Vector NTI softwares. Homology analyses were performed by BioEdit sequence identity matrix. The results obtained here showed that the within the different clones from the same sample was possible to detect changes in the percentage of homology. The observed variations ranged from 35-100% (sample 249/05), 50-100% (sample 126/05) and 95-100% (sample 438/00). These results indicate the importance of cloning the field IBV samples directly from the material submitted to diagnostic before the isolations procedures in order to avoid a selection process of

the viral population more adapted to the different forms of isolation and multiplication in detriment of others present in the same material. Financial support: CAPES-Embrapa-CNPq

VV1390 - ENZOOTIC BOVINE LEUKOSIS IN BULLS AND RECIPIENTS COWS

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Enzootic Bovine Leukosis (EBL) is an infectious disease of cattle, produced by the retrovirus bovine leukaemia virus (BLV). The importance of the disease is based on the economic losses it produces, from the slaughter of animals and commercial restrictions of cattle, semen and embryos. The BLV usually affects animals over two years and once infected, they remain asymptomatic carriers and source of infection for life. To implement specific measures for prevention and control is crucial to understand the health situation, being laboratory diagnosis the basis for epidemiological surveys. Routine diagnosis of BLV is usually based either on the detection of antibodies or on the evidence of proviral DNA. This study evaluated the occurrence of antibodies anti-EBL in serum samples from bovine of various Insemination Centers of Brazil and of recipients cows. It was analyzed 3045 sera, received at the Laboratório de Virose de Bovídeos, Instituto Biológico, São Paulo, from January to December 2011. A commercial AGID test (Tecpar Kit ®) and an ELISA (Leukosis Serum

CHEKIT ®), was used to test serum samples, both recommended by the World Health Organization. It was detected in AGID 8.9% (212/2381) and by ELISA 29.06% (193/664) of reagent animals. The lower percentage of reagent animals in AGID may be due to the low sensitivity of this technique when compared to ELISA. These data corroborate the literature, however we must be careful, because the rates of seropositivity are very variable due to differences of sampling, as statistical design and routine samples, different management and diagnostic methods. The result obtained with these animals of high genetic value is a warning for the need to adopt sanitary measures to prevent and control the disease, thus reducing socioeconomic consequences.

VV1396 - DEVELOPMENT OF A LIQUID PHASE BLOCKING S-ELISA-CON A FOR THE DETECTION OF ANTIBODIES TO NEWCASTLE DISEASE VIRUS (NDV) IN PIGEONS

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Indirect ELISA (I-ELISA) has been developed, evaluated, and provided good correlation with the HI test for