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The lentivirus feline immunodeficiency virus (FIV) is an important viral pathogen of the domestic cat worldvide. We isolated FIV from an adult male domestic cat, originating from an open shelter in Minas Gerais, Brazil. The virus was isolated from PBMC following co-cultivation with the feline T-lymphoblastoid cell line MYA-1. Full-length viral envelope glycoprotein (*env*) genes were amplified from the replication-competent virus. All amplified *env* gene products were cloned directly into $pGL8_{MYA}$. The nucleic acid sequence of three independent clones were determined, compared with previously described isolates and submitted to GeneBank. The sequences of all of the Brazilian virus clones were distinct and phylogenetic analysis revealed that they belong to subtype B.
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AV 108 I CLINICAL EVALUATION AND VIRUS QUANTIFICATION IN NATURALLY FIV-INFECTED CATS TREATED WITH AZT

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Feline immunodeficiency virus (FIV) is a lentivirus that causes a progressive disruption of cat's immune system. Zidovudine (AZT) is the most thoroughly studied anti-FIV drug and is implicated in reduction of plasma virus load and improvement of clinical status of FIV-infected cats. The aim of this work was to evaluate the potential benefit of the AZT treatment of naturally infected cats and the relationship between viral load and clinical manifestations. For this purpose, 10 positive cats screened from 202 blood samples collected from animals of three cities in São Paulo State, were randomly separated in to two groups, treated (T1-T5) and control (C1-C5). Treated group received AZT at 5mg/kg orally twice a day during 41 days. Clinical and hematological status were monitored thoroughly the experiment. The absolute quantification of plasma virus load was obtained by detecting a fragment of the capsid protein (p24) cloned into pGEM®-T Easy Vector (Promega) by real time PCR with SYBR Green detection system at the beginning and at the end of treatment. Sample threshold cycle measurements (Ct) were expressed in relation to a standard-curve derived from a dilution series of the cloned plasmid. At the beginning, five cats (T1, T2, T3, C1 and C3) presented gingivitis of mild to high levels and one presented more severe manifestations with the complex gingivitis-stomatitis (T5). During treatment, control group had a significative improvement of clinical manifestations, with emphasis for animal T5 that had a greater regression of inflammation and increased appetite. On the other hand, control group maintained theirs status and one developed from absence to moderate gingivitis. There were no hematological abnormalities. The virus quantification demonstrated little (< 100 copies/mL) or undetected levels of plasma virus load at the beginning and at the end of the experiment. Gingivitis and stomatitis are common clinical signs with uncertain causative and can occur at any stage of infection. Here we report no relationship between these clinical sings and plasma virus load, reinforcing the suggestion that the alterations would be attributed to chronic immune stimulation or immune dysregulation and the involvement of other local agents. In addition, AZT treatment demonstrated a useful tool for improving quality of life of FIV-infected cats.
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AV 109 I MONITORING THE OCCURRENCE AND THE ADOPTION OF MEASURES FOR PREVENTION AND CONTROL OF EQUINE INFECTIOUS ANEMIA IN PANTANAL, BRAZIL

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Equine infectious anemia (EIA) is a chronic disease of horses caused by a retrovirus, the equine infectious anemia virus (EIAV). It is transmitted mechanically through infected blood by utensils, needles and blood-sucking insects. In the Pantanal, a swamp region in Brazil where EIA is considered endemic, serosurveys utilizing the agar gel immunodifusion test (AGID) revealed that the highest rates of EIA occur in the working horses. Governmental and research institutions proposed, in the 1990's, measures based on diagnosis and segregation of positive herds to prevent and control the EIA in this region. To monitor the occurrence of EIA and the results of these measures after years, a preliminary study was conducted from July 2007 to July 2008. Serum samples of 174 working horses from 11 farms of the Pantanal sub-regions of Paraguai, Paiaguás e Nhecolândia were submitted to serology by the ELISA rgp90. Questionnaires to verify the adoption of the proposed measures were applied to eight of these farms. It was found that 57% of the samples were positive, 38% were negative

and 5% were considered undetermined. None of the farms has reported to adopt measures for prevention and control of EIA in the last years. Although few samples have been tested up to now, these preliminary results indicate that the occurrence rates of EIA in the Pantanal region remain high and that the measures to prevent and control of this disease have not been remarkably adopted by farmers.

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AV 110 I OCCURRENCE OF FELINE LEUKEMIA VIRUS SUBGROUP B IN DOMESTIC CATS FROM BELO HORIZONTE, MINAS GERAIS STATE.

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Feline leukemia virus (FeLV) is an exogenous retrovirus, belonging to the genus *Gammaretrovirus*, which infects domestic and sporadically wild cats. FeLV has been associated with fatal neoplasia, degenerative diseases of the hematopoietic system and immunodeficiency. A nested-PCR (n-PCR) was used to determine the subgroup of the FeLV in blood samples from domestic cats (*Felis catus*) with clinical suspicion of FeLV infection, from Belo Horizonte, Minas Gerais (MG), Brazil. To determine the subgroup of the FeLV MG samples, the provirus *env* gene from the 34 randomly selected FeLV infected cats were amplified by n-PCR using a pair of outer primers that recognize sequences in the *pol* gene upstream of the *env* gene start codon and sequences in the U3 region of the 3'LTR that are conserved among exogenous FeLVs. We did not test samples using FeLV-T-specific primers. n-PCR products indicated that 15 (44%) MG samples were positive for FeLV-A, 19 (56%) MG samples were simultaneously positive for FeLV-A and FeLV-B and none (0%) were positive for FeLV-C. The specificity of this n-PCR assay was confirmed by nucleotide sequencing of the *env* gene from three FeLV-A MG samples and five FeLV-B MG samples. The partial *env* gene of FeLV MG samples were compared to exogenous sequences representing the four FeLV subgroups (A, B, C and T), and endogenous (enFeLV) provirus from the same region. The phylogenetic analysis revealed that the FeLV-B MG samples were more similar to the group represented by exogenous FeLV-B virus and to the endogenous provirus than to either FeLV-A, FeLV-C or FeLV-T *env* genes. Furthermore, all FeLV-A MG samples shared a remarkable degree of identity with the horizontally transmissible FeLV subgroup A, FeLV-FAIDS. This finding leads us to suggest that the FeLV-B MG samples arised by recombination between endogenous provirus and the exogenous FeLV-A in naturally infected domestic cats. The results indicated for the first time the circulation of FeLV, subgroup B, in urban domestic cats in Brazil.

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AV 111 I PCR DETECTION OF CAPRINE ARTHRITIS-ENCEPHALITIS VIRUS (CAEV) IN SEMEN OF NATIVE BUCKS

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Caprine arthritis encephalitis (CAE) is a common disease in dairy goats widespread caused by a lentivirus of the Retroviridae family. CAE is responsible for considerable economic losses in affected herds, through premature culling of goats due to the progressive and often debilitating arthritis, and decreased milk production associated with indurative mastitis. The vertical transmission is a major route of infection from nanny goat to kid through colostrum and milk. However it is unclear whether CAE is sexually transmitted. Less efficient routes of transmission such as sexual route must be investigate in order to improve methods of control and eradication. The aims of this study was asses the potencial presence of caprine arthrite encephalitis virus (CAEV) in semen of infected native bucks. Four mature bucks were inoculated intravenously with CAEV cork isolate in MSC cells. Four bucks were naturally infected. Blood and semen samples were collected from all bucks weekly through a month and tested for presence of antibodies to CAEV by agar gel immunodiffusion (AGID) and for specific gag gene DNA by nested PCR. AGID confirmed the presence of antibodies to CAEV in all 8 infected bucks. CAEV proviral-DNA was detected in blood and semen bucks and semen of 5 bucks. No CAEV proviral-DNA was detected in semen or blood of control group (4 bucks). This is the first report describing the presence of CAEV-proviral DNA in semen from Moxotó and Anglo Nubian seropositive male goats. The presence of CAEV-proviral DNA in semen of natural and experimentally infected native Brazilian breeds gives us a new perspective on preventive measures.

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AV 112 I SHEDDING PATTERN IN SEMEN OF CAEV EXPERIMENTALLY INFECTED BUCKS

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