

antibodies with ELISA test and AGID test. Our research was based on patients with acute leukemia. During the 18 months from 3 main study and treatment of blood cancer, 50 patients were selected, and blood serum after removing their blood, serum was frozen. Then prepare the standard bovine leukemia antigen and tested with ELISA and agar gel immunodiffusion.

No observed positive samples with ELISA test in AGID test, sample 28, sedimented, indicating that linear positive. But, because in ELISA test samples 28 was negative and ELISA test was more definite than AGID test, we can't Strong argument.

In this research was conducted by two experiments being a human leukemia and bovine leukemia was not fixed. Accordingly, this study showed that these two diseases have no direct connection together.

1) Donovan R.M., "Retrovirus Veterinary Microbiology", first ed., black well Science Inc., pp442-461, 1999.

EPIDEMIOLOGICAL SURVEY ON BOVINE CYSTICERCOSIS IN PINEROLO DISTRICT, NORTHWEST ITALY

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Introduction: Bovine cysticercosis is a disease caused by the larval infection of *Taenia saginata* in cattle. Transmission to animals occurs upon contamination of food or water by faeces of infected humans. The prevalence in humans and bovine are highly variables but strictly correlated and are due to hygienic and culinary habits.

Objective: The aim of this study is to evaluate the prevalence on bovine cysticercosis in Pinerolo district from 1995 to 2009.

Material and methods: The study was conducted on area of 702 km². In this area there are approximately 72,000 cattle in 1340 farms. Data on the farms affected by bovine cysticercosis was collected and prevalence of cysticercosis was based on meat inspection reports. In the slaughterhouses, all bovine over 6 weeks were examined by official veterinarians by cuts in masseter muscles, tongue, diaphragm and heart.

Results and discussion: From January 1995 to December 2009, 595 bovine from 207 (15,44%) cattle farms affected by cysticercosis were detected. The mean prevalence of infected animals was 0,116% of slaughtered. The prevalence of infected bovine decreased through the study period from 0,152% in 1996 to 0,088% in 2007. In the last two years (2008-2009) the prevalence increased again to 0,117% in 2009. The infected animals average 37 months of age. The prevalence of positive farms was 15,44%.

In the most of positive farms (77%) infected bovine have been detected only one time, this underline a light infection level. The number of infected animals detected per farm varies from 1 to 19. A large share of infected bovine (40,7%) were imported from other countries.

Conclusion: Bovine cysticercosis is still present in Pinerolo district but the number of infected animals has decreased from 1995 to 2009. The study shows a low prevalence of cysticercosis bovine.

Keywords: Bovine, cysticercosis, prevalence

SANITARY SURVEILLANCE OF BOVINE ENCEPHALITIS: *NEOSPORA CANINUM* AS CAUSATIVE AGENT. PRELIMINARY RESULTS

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In Brazil, the Ministry of Agriculture, Livestock and Food Supply (MAPA) has coordinated the Brazilian Program of Herbivorous Rabies Control and other Encephalopathies, which Rabies is the most frequent disease. However, several other pathogens can affect the Central Nervous System (CNS) of bovine showing the importance of differential diagnosis. Considering that *Neospora caninum*, a member of the family Sarcocystidae may cause encephalitis, the present study determined the occurrence of this protozoan in bovine CNS of different ages which presented neurological symptoms, and were negative to

Rabies. A total of 300 brains were fixed in 10% buffered formalin, embedded in paraffin, cut at 4 µm, and stained with hematoxylin and eosin (HE). Histology was used as an initial screening for indication of encephalitis, and a mononuclear inflammatory infiltrate associated or not to focal necrosis was observed in 24.0% (72) samples. Due these histopathological lesions be suggestive of *N. caninum* infection, the samples were submitted to immunohistochemistry (IHC), a specific test using polyclonal antibody anti-*N. caninum*. For that, a second set of sections were mounted on slides, along with controls, and processed for IHC using avidin-biotin-complex peroxidase. The positive control was fetal heart taken from a pregnant goat that had been inoculated with the Illinois-NC strain of *N. caninum*. The same heart tissue was used as a negative control when it was not exposed to the primary antibody. All slides were hydrated and endogenous peroxidase was blocked by a mix of 10 mL of hydrogen peroxide 30 vol., 10 mL methanol and 80 mL buffer. They were placed in a microwave oven (800 watts) for 10 min for antigen retrieval. Non-specific reactions were blocked with 10% milk powder dissolved in PBS. The primary polyclonal antibody, anti-*N. caninum* rabbit hyperimmune serum, was diluted 1:2000. The DAB chromogen was used for display and disclosure of the reaction, and the slides were counterstained with hematoxylin. No parasites were detected by IHC, and in order to enhance the sensitivity of the diagnosis, these samples also will be analyzed by nested PCR using primers for *N. caninum* (Nc5 region of the genomic DNA and ITS1 region of the ribosomal DNA), and study the agreement among these tests by Kappa statistics. Histopathology should be interpreted as complementary to tests such as IHC and nested-PCR, which identify the causative agent.

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PREVENTIVE MEASURES IN SMALL RUMINANT FARMS SUSPECTED OF PARATUBERCULOSIS

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Serra da Estrela sheep are the most important local breed milk producer in Portugal and its economic exploitation is of great importance in the economy of the central region of the country.

Direct and indirect economic losses associated with Paratuberculosis caused by *Mycobacterium avium* subsp. *paratuberculosis* (MAP) justify exhaustive studies of this disease, as well as the establishment of preventive measures.

An epidemiological survey was conducted on 13 sheep herds, with clinical suspicion of paratuberculosis, with the main purpose of identification of the flock's carriers of the disease and, subsequently, characterize and identify the main risk factors and implement preventive measures.

Several diagnosis' methods were tested, including Enzyme Linked Immunosorbent Assay (ELISA), Agar Gel Immunodiffusion (AGID) histopathology, immunohistochemistry, Polymerase Chain Reaction (PCR) and bacteriological culture.

2589 blood samples were submitted to ELISA, revealing 235 positive samples (9.1%) and 45 showing doubtful results (1.7%). The same samples (2589) were submitted to AGID, showing 30 positive results (1.16%) Necropsies were performed in 43 animals and submitted to histopathological diagnosis, considering the presence of at least one of the disease characteristic microscopic lesions, we classified 26 (60.5%) animals as compatible with Paratuberculosis. In Ziehl-Neelsen method, alcohol-acid-resistant bacteria were observed in 20 animals (46.5%). In immunohistochemical method, also 20 animals (46.5%) revealed the presence of MAP. The PCR analysis of tissue samples collected at necropsies, revealed 35 positive animals (81.4%). So, all the diagnostic tests applied, showed lower sensitivity than the PCR technique of the tissue samples.

The prevalence of the disease in the studied herds was high, justifying the urgent implementation of several preventive measures, such frequent diagnostic surveys to identify the carriers, controlling the origin of the animals, implementing a system that allows the vigilance of the symptoms shown by animals, among other.

SANITARY PROFILES OF RECIPIENTS OF *IN VITRO* EMBRYOS TRANSFERRED WITHIN FIXED TIME FRAMES IN A COMPARATIVE TRIAL WITH TWO SYNCHRONIZATION PROTOCOLS IN CUNDINAMARCA COLOMBIA